Appendix F

Existing Conditions Hydrology Map

12 | P a g e



LEGEND	
PERTY BOUNDARY RAINAGE BOUNDARY	
DRAULIC NODE	(100)
UBAREA NAME REA SIZE (ACRES)	(173)
EAK FLOW RATE	050=X XXcfs
NFLUENCED FLOW RATE	∑050=X_XXcfs
STORM DRAIN	→-·→-· = = =
BASIN OR DROP INLET	СВ

HYDROLOGIC DESIGN DATA

FREQUENCY	50-YEAR
L DEPTH (in)	7 38
FREQUENCY	10-YEAR
L DEPTH (in)	5,27
IL TYPE	28
A ZONE	DPA ZONE 6
N FACTOR	0
NG FACTOR	N/A

INPUT FOR HYDROCAD

AREA(AC)	IMP	010(cfs)	050(cts)
5.09	0.01	5.52	12 58
1.21	0.01	1.85	3.69
1.13	0.04	1.95	3 48
7 43	0:02	9 32	19.75



EXISTING HYDROLOGY MAP

OAKMONT OF AGOURA HILLS 29353 CANWOOD STREET AGOURA HILLS, CA. 91301 SHEET_1_OF_1_

OTY OF ADOURA HILLS DWG NO.





LEGEND

(100) (18) (1.73) 050=X_XXcls <u>→</u>,.<u>→</u>,.<u></u> |0--|0--|0--|

HYDROLOGIC DESIGN DATA

ENCY	50-YEAR
H (in)	7_38
ENCY	10-YEAR
H (in)	5 27
	28
	DPA ZONE 6
OR	0
TOR	N/A

INPUT FOR HYDROCAD			
AREA(AC)	IMP	010(cts)	Q50(cfs
3.29	0.00	6.32	10,04
0.71	0.00	1,36	2.17
0.09	0.09	0,18	0.28
0.69	0,51	1.64	2.42
0.30	0.00	0.42	0.82
0,46	0.68	1.17	1.69
1.13	0.84	3_03	4.31
0.71	0.40	1.62	2.84
7.70	0.72	15.74	24.57





PROPOSED HYDROLOGY MAP

OAKMONT OF AGOURA HILLS 29353 CANWOOD STREET AGOURA HILLS, CA. 91301_{SHEET_1_OF_1}

CITY OF ACOURA HILLS DWG. I





LEGEND

PROPERTY BOUNDARY MAJOR DRAINAGE BOUNDARY SUBAREA NAME SUBAREA SIZE (ACRES) WATER QUALITY DESIGN VOLUME SWQDv=X,XXX CF OVERLAND FLOW STORM DRAIN CATCH BASIN OR DROP INLET

18

311007-24,1101 01
CB

HYDROLOGIC DESIGN DATA

STORM FREQUENCY 85-TH PERCENTILE RAINFALL DEPTH (in) 0,95 SOIL TYPE 28 DPA ZONE DPA ZONE 6 BURN FACTOR 0 BULKING FACTOR N/A

INPUT FOR HYDROCAD

REA NAME	AREA(AC)	IMP	SWQDv(CF)
1A	3 29	0.00	(1,215)*
2A	0.71	0.00	(262)*
3A	0.09	0.09	53
4A	0 69	0.51	1,199
5A	0,30	0_00	(111)'
6A	0_46	0,68	1,013
7A	1.13	0.84	2,983
8A	0.71	0.40	1,020
TOTAL	7.38	0.32	6,268

WATER QUALITY TREATMENT IS NOT REQUIRED FOR OFFSITE DRAINAGE AREAS BY PASSING DEVELOPMENT.

DZ)

WATER QUALITY MAP

OAKMONT OF AGOURA HILLS 29353 CANWOOD STREET AGOURA HILLS, CA. 91301

CITY OF AGOURA HILLS DWG NO

Noise Impact Analysis



FIRSTCARBONSOLUTIONS[™]

Noise Impact Analysis Oakmont of Agoura Hills City of Agoura Hills, Los Angeles County, California

> Prepared for: Oakmont Senior Living 8779 Soothing Court Corona, CA 92883

> > Contact: Wayne Sant

Prepared by: FirstCarbon Solutions 11755 Wilshire Boulevard, Suite 1600 Los Angeles, CA 90025

Contact: Jason Brandman, Project Director

Date: August 3, 2017

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ACRONYMS AND ABBREVIATIONS

ADT	average daily traffic	
ANSI	American National Standards Institute	
Caltrans	California Department of Transportation	
CEQA	California Environmental Quality Act	
CNEL	Community Noise Equivalent Level	
dB	decibel	
dBA	A-weighted decibel	
FCS	FirstCarbon Solutions	
FHWA	Federal Highway Administration	
FTA	Federal Transit Administration	
Hz	Hertz	
L _{dn}	Day-Night Average Sound Level	
L _{eq}	Equivalent Sound Level	
OSHA	Occupational Safety and Health Administration	
PPV	peak particle velocity	
RMS	root mean square	
SEL	Single Event Level	
VdB	Vibration level at 1 microinch per second	

SECTION 1: INTRODUCTION

1.1 - Purpose of Analysis and Study Objectives

This Noise Impact Analysis has been prepared by FirstCarbon Solutions (FCS) to determine the offsite and on-site noise impacts associated with the proposed Oakmont Assisted Living Facility project. The following is provided in this report:

- A description of the study area, project site, and proposed project
- Information regarding the fundamentals of noise and vibration
- A description of the local noise guidelines and standards
- A description of the existing noise environment
- An analysis of the potential short-term, construction-related noise and vibration impacts from the proposed project
- An analysis of long-term, operations-related noise and vibration impacts from the proposed project

1.2 - Project Summary

1.2.1 - Site Location

The Oakmont Assisted Living Facility Project (project) is located within the City of Agoura Hills (Exhibit 1). The project site is located at 29353 Canwood Street, Agoura Hills, California, just north of Canwood Street and west of the intersection of US 101 and Kanan Road (Exhibit 2a and Exhibit 2b). The site is bordered by an existing, single-family residential development to the north, by commercial office land use to the west, and by a vacant undeveloped parcel to the east. US 101 is immediately south of Canwood Street with commercial and light industrial uses located beyond.

1.2.2 - Project Description

Oakmont of Agoura Hills submitted an application to the City of Agoura Hills to develop an assisted living and memory care community at 29353 Canwood Street in Agoura Hills. The proposed project site is bounded by existing single-family residential development to the north, by commercial office land use to the west, and by a vacant, undeveloped parcel to the east. US 101 is immediately south of Canwood Street with commercial and light industrial uses located beyond (Exhibit 3). The project site is located adjacent to noise-sensitive residential land uses that could be impacted by project's construction and operational noise sources. Therefore, the City has required a noise study.



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CITY OF AGOURA HILLS • OAKMONT OF AGOURA HILLS

NOISE IMPACT ANALYSIS



2,000

Feet

Exhibit 2a Local Vicinity Map Topographic Base

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2,000

1,000

0

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> CITY OF AGOURA HILLS • OAKMONT OF AGOURA HILLS NOISE IMPACT ANALYSIS



850

Feet

425

0

850

Exhibit 2b Local Vicinity Map Aerial Base

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Source: Landesign Group, 2016



Exhibit 3 Site Plan

33160016 • 03/2016 | 3_siteplan.cdr

SECTION 2: NOISE AND VIBRATION FUNDAMENTALS

2.1 - Characteristics of Noise

Noise is generally defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep.

Several noise measurement scales exist which are used to describe noise in a particular location. A *decibel* (dB) is a unit of measurement that indicates the relative intensity of a sound. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3.0 dB or less are only perceptible in laboratory environments. Audible increases in noise levels generally refer to a change of 3.0 dB or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. Sound levels in dB are calculated on a logarithmic basis. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, 30 dB is 1,000 times more intense. Each 10-dB increase in sound level is perceived as approximately a doubling of loudness. Sound intensity is normally measured through the A-weighted sound level (dBA). This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive.

Noise impacts can be described in three categories. The first is audible impacts, which refers to increases in noise levels noticeable to humans. An audible increase in noise levels generally refers to a change of 3.0 dB or greater, since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1.0 and 3.0 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise level of less than 1.0 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

As noise spreads from a source, it loses energy so that the farther away the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6-dB reduction in the noise level for each doubling of distance from a single point source of noise to the noise-sensitive receptor of concern. A long, closely spaced continuous line of vehicles along a roadway becomes a line source and produces a 3 dBA decrease in sound level for each doubling of distance. However, experimental evidence has shown that where sound from a highway propagates close to "soft" ground (e.g., plowed farmland, grass, crops, etc.), the most suitable dropoff rate to use is not 3 dBA but rather 4.5 dBA per distance doubling. There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoying effects of sound. The predominant rating scales for human communities in the State of California are the L_{eq} and community noise equivalent level (CNEL) or the day-night average level (L_{dn}) based on A-weighted decibels (dBA). Equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. CNEL is the time-varying noise over a 24-hour period, with a 5-dBA weighting factor applied to the hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and a 10-dBA weighting factor

applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within one dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours.

Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by L_{max} for short-term noise impacts. L_{max} reflects peak operating conditions and addresses the annoying aspects of intermittent noise.

Common sources of noise in urban environments include mobile sources, such as traffic, and stationary sources, such as mechanical equipment or construction operations.

Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on each construction site and, therefore, would change the noise levels as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table 1 shows typical noise levels of construction equipment as measured at a distance of 50 feet from the operating equipment. Construction-period noise levels are higher than background ambient noise levels, but eventually cease once construction is complete.

Category	Impact Device? (Yes/No)	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)
Pickup Truck	No	55
Pumps	No	77
Air Compressors	No	80
Backhoe	No	80
Front-End Loaders	No	80
Portable Generators	No	82
Dump Truck	No	84
Tractors	No	84
Auger Drill Rig	No	85
Concrete Mixer Truck	No	85
Cranes	No	85
Dozers	No	85
Excavators	No	85

Table 1: Typical Construction Equipment Maximum Noise Levels, Lmax

Type of Equipment	Impact Device? (Yes/No)	Specification Maximum Sound Levels for Analysis (dBA at 50 feet)		
Graders	No	85		
Jackhammers	Yes	85		
Man Lift	No	85		
Paver	No	85		
Pneumatic Tools	No	85		
Rollers	No	85		
Scrapers	No	85		
Concrete/Industrial Saws	No	90		
Impact Pile Driver	Yes	95		
Vibratory Pile Driver	No	95		
Source: FHWA, 2006.				

Table 1 (cont.): Typical Construction Equipment Maximum Noise Levels, Lmax

2.2 - Characteristics of Groundborne Vibration

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. Vibrating objects in contact with the ground radiate vibration waves through various soil and rock strata to the foundations of nearby buildings.

Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. When assessing annoyance from groundborne vibration, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 micro-inch per second. To distinguish vibration levels from noise levels, the unit is written as "VdB."

In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include construction activities such as blasting, pile driving and operating heavy earthmoving equipment. However, construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). For purposes of this analysis, project related impacts are expressed in terms of PPV. Typical vibration source levels from construction equipment are shown in Table 2.

Construction Equipment	PPV at 25 Feet (inches/second)	RMS Velocity in Decibels (VdB) at 25 Feet
Water Trucks	0.001	57
Scraper	0.002	58

Table 2: Vibration Levels of Construction Equipment

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Construction Equipment	PPV at 25 Feet (inches/second)	RMS Velocity in Decibels (VdB) at 25 Feet		
Bulldozer—small	0.003	58		
Jackhammer	0.035	79		
Concrete Mixer	0.046	81		
Concrete Pump	0.046	81		
Paver	0.046	81		
Pickup Truck	0.046	81		
Auger Drill Rig	0.051	82		
Backhoe	0.051	82		
Crane (Mobile)	0.051	82		
Excavator	0.051	82		
Grader	0.051	82		
Loader	0.051	82		
Loaded Trucks	0.076	86		
Bulldozer—Large	0.089	87		
Caisson drilling	0.089	87		
Vibratory Roller (small)	0.101	88		
Compactor	0.138	90		
Clam shovel drop	0.202	94		
Vibratory Roller (large)	0.210	94		
Pile Driver (impact-typical)	0.644	104		
Pile Driver (impact-upper range)	1.518	112		
Source: Compilation of scientific and academic literature, generated by FTA and FHWA.				

Table 2 (cont.): Vibration Levels of Construction Equipment

Propagation of vibration through soil can be calculated using the vibration reference equation:

Where:

PPV=reference measurement at 5 feet from vibration source D=distance from equipment to property line n=vibration attenuation rate through ground According to Chapter 12 of the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment manual (2006), an "n" value of 1.5 is recommended to calculate vibration propagation through typical soil conditions.

SECTION 3: REGULATORY SETTING

3.1 - Federal Regulations

3.1.1 - United States Environmental Protection Agency (EPA)In 1972, Congress enacted the Noise Control Act. This act authorized the EPA to publish descriptive data on the effects of noise and establish levels of sound "requisite to protect the public welfare with an adequate margin of safety." These levels are separated into health (hearing loss levels) and welfare (annoyance levels) categories, as shown in Table 3. The EPA cautions that these identified levels are not standards because they do not take into account the cost or feasibility of the levels.

For protection against hearing loss, 96 percent of the population would be protected if sound levels are less than or equal to an $L_{eq(24)}$ of 70 dBA. The "(24)" signifies an L_{eq} duration of 24 hours. The EPA activity and interference guidelines are designed to ensure reliable speech communication at about 5 feet in the outdoor environment. For outdoor and indoor environments, interference with activity and annoyance should not occur if levels are below 55 dBA and 45 dBA, respectively.

Effect	Level	Area
Hearing loss	L _{eq} (24) <u><</u> 70 dB	All areas
Outdoor activity interference and annoyance	L _{dn} <u>≤</u> 55 dB	Outdoors in residential areas and farms and other outdoor areas where people spend widely varying amounts of time and other places in which quiet is a basis for use
	L _{eq} (24) <u><</u> 55 dB	Outdoor areas where people spend limited amounts of time, such as school yards, playgrounds, etc.
Indoor activity interference and annoyance	L _{eq} <u><</u> 45 dB	Indoor residential areas
	L _{eq} (24) ≤ 45 dB	Other indoor areas with human activities such as schools, etc.
Source: EPA, 1974.	·	·

Table 3: Summary of EPA Recommended Noise Levels to Protect Public Welfare

3.1.2 - Federal Transit Administration

The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment document (FTA 2006). The FTA guidelines include thresholds for construction vibration impacts for various structural categories as shown in Table 4.

Building Category		PPV (in/sec)	Approximate VdB	
I. Reinforce	ed—Concrete, Steel or Timber (no plaster)	0.5	102	
II. Engineer	ed Concrete and Masonry (no plaster)	0.3	98	
III. Non Engi	neer Timber and Masonry Buildings	0.2	94	
IV. Buildings	Extremely Susceptible to Vibration Damage	0.12	90	
Note: VdB = velocity in decibels Source: FTA, 2006.				

Table 4: Federal Transit Administration Construction Vibration Impact Criteria

3.2 - State Regulations

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the "State Noise Insulation Standard," it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are found in the California Code of Regulations, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor-ceiling assemblies must block or absorb sound. For limiting noise from exterior noise sources, the noise insulation standards set an interior standard of 45 dBA CNEL in any habitable room with all doors and windows closed. In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to meet this interior standard, where such units are proposed in an area with exterior noise levels greater than 60 dBA CNEL.

The State has also established land use compatibility guidelines for determining acceptable noise levels for specified land uses. The City of Agoura Hills has adopted and modified the State's land use compatibility guidelines, as discussed below.

3.3 - Local Regulations

The project site is located within the City of Agoura Hills. The City of Agoura Hills addresses noise in the Noise section of the Community Safety Element of its General Plan (City of Agoura Hills 2035 General Plan Update, March 2010) and in the City of Agoura Hills Municipal Code (City of Agoura Hills 2016).

The City has established noise and land use compatibility standards for residential land use development, as shown in Figure N-2 of the Noise Element. The closest type of land use category listed in the land use compatibility standards to the proposed assisted living type land use is the

FirstCarbon Solutions Y:\Publications\Client (PN-JN)\3316\33160016\Oakmont Agoura Hills Noise Analysis\33160016 Oakmont Agoura Hills Noise Analysis.docx City's multiple-family residential land use category. According to the policies of the General Plan, noise environments up to 60 dBA CNEL are considered "clearly compatible" for new multi-family residential land use developments. Environments with ambient noise levels from 60 dBA to 70 dBA CNEL are considered "normally compatible" for new multi-family residential land use developments; as such, development may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features are included in the project design. Conventional construction, but with closed windows and a fresh air supply system or air conditioning, will normally suffice as a noise insulation feature for these conditionally acceptable environments.

The other primary method of noise control is through enforcement of the City's Municipal Noise Ordinance. The ordinance is designed to control unnecessary, excessive and annoying sounds generated on one piece of property from impacting an adjacent property, and to protect residential areas from noise sources other than transportation sources. The Noise Ordinance is designed to protect sensitive areas from intruding noise across property lines. For example, it limits noise at residential properties to 55 dBA L_{eq} from 7:00 a.m. to 10:00 p.m. and to 50 dBA L_{eq} from 10:00 p.m. to 7:00 a.m. Furthermore, it is unlawful for any person to create noise, when measured on any residential property, which causes the sound level to exceed:

- 1. The noise standard for a cumulative period of more than fifteen minutes in any hour; or
- 2. The noise standard plus 5 dBA for a cumulative period of more than ten minutes in any hour; or
- 3. The noise standard plus 5 dBA for a cumulative period of more than five minutes in any hour; or
- 4. The noise standard plus 15 dBA for a cumulative period of more than one minute in any hour; or
- 5. The noise standard plus 20 dBA for any period of time.

Interior noise standards in residential dwellings are limited to 45 dBA L_{eq} from 7:00 a.m. to 10:00 p.m. and to 45 dBA L_{eq} from 10:00 p.m. to 7:00 a.m. Furthermore, it is unlawful for any person to create noise, when measured on any residential property, which causes the sound level to exceed:

- 1. The noise standard for a cumulative period of more than five minutes in any hour;
- 2. The noise standard plus 5 dBA for a cumulative period of more than one minute in any hour; or
- 3. The noise standard plus 10 dBA for any period of time

In the event the ambient noise level exceeds either of the first two noise limit categories above, the cumulative period applicable to said category shall be increased to reflect the ambient noise level. In the event the ambient noise level exceeds the third noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

The City provides certain exemptions from these operational noise standards, including noise associated with construction activities. Noise sources associated with construction, repair, remodeling, or grading of any real property, provided said activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or at any time on Sunday or a legal holiday.

Other noise sources that are listed as being exempt from the noise performance standards of the Municipal Code include:

- Noise sources associated with the maintenance of real property provided said activities take place between the hours of 7:00 a.m. and 8:00 p.m. on any day except Sunday or a legal holiday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday or a legal holiday.
- Activities conducted on the grounds of any public or private nursery, elementary, intermediate or secondary school or college.
- Public dances, provided said events are conducted pursuant to a permit issued by the city.
- Activities conducted on any authorized park or playground provided such park or playground is owned and operated by a public entity.
- Any mechanical device, apparatus or equipment used, related to or connected with any emergency machinery, vehicle or work.

Additionally, It is unlawful for any person to create any noise which causes the noise level at any school, hospital or church while the same is in use, to exceed the noise limits as specified in Section 9656.2, prescribed for the assigned noise zone in which the school, hospital or church is located, or which noise level unreasonably interferes with the use of such institution or which unreasonably disturbs or annoys patients in a hospital provided conspicuous signs are displayed in three (3) separate locations within one-tenth of a mile of the institution indicating the presence of a school, church or hospital.

SECTION 4: EXISTING NOISE CONDITIONS

The following section describes the existing ambient noise environment of the project vicinity.

4.1 - Existing Noise Sources

The project site is located in the City of Agoura Hills, California. The proposed project site is bounded by existing single-family residential development to the north, by commercial office land use to the west, and by a vacant, undeveloped parcel to the east. US 101 is immediately south of Canwood Street with commercial and light industrial uses located beyond.

4.2 - Existing Ambient and Traffic Noise Levels

The existing noise levels on the project site were documented through a noise monitoring effort taken on the project site.

A short-term noise measurement was taken on Monday, March 7, 2016 starting at 4:50 p.m., during the afternoon peak noise hour. The measurement was taken in the northwest corner of the project site near the closest residential receptor with a direct line of sight to portions of the project site. The resulting measurement showed that ambient noise levels at this location averaged 72.8 dBA L_{eq} . As was observed by the technician at the time of the noise measurement, the dominant noise source in the project vicinity was traffic on US 101.

A long-term noise measurement was also taken on Tuesday, June 27, 2017 beginning at approximately 12:00 p.m. and ending on Wednesday, July 28, 2017 at 12:00 p.m. The noise measurements data sheet is provided in Appendix A of this document. The noise measurements were taken near the closest residential receptor property line. The average hourly ambient noise levels were measured to be 58.6 dBA L_{eq} , with a maximum reading of 77.5 dBA L_{max} and a minimum reading of 38.8 dBA L_{min} . The 24-hour weighted day-night average noise level for the project site is 63.7 dBA CNEL. Also, the daytime hourly average noise levels at this location were 59.6 dBA L_{eq} .

The long-term noise measurement captured noise from all noise sources in the project vicinity, including parking lot and other operational noise sources associated with commercial facilities adjacent to the project site, as well as traffic noise on local roadways.

The existing noise levels were also modeled using SoundPlan. The existing traffic noise contours for the project vicinity are shown in Exhibit 4. The SoundPlan assumptions and modeling data are provided in Appendix A.

4.3 - Existing Stationary Source Noise Levels

Commercial land uses in the project vicinity generate noise from truck deliveries, loading/unloading activities, and typical parking lot activities. Typical medium truck (step-van type with roll-doors) loading and unloading activities in the project vicinity result in maximum noise levels from 70 dBA to 80 dBA L_{max} at 50 feet. Representative parking activities, such as people conversing or doors slamming, generate approximately 60 dBA to 70 dBA L_{max} at 50 feet. These activities are potential point sources of noise that contribute to the existing ambient noise environment in the project vicinity.



Source: SountPlan Version 7.4



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Exhibit 4 Existing Noise Contour Map
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SECTION 5: THRESHOLDS OF SIGNIFICANCE AND IMPACT ANALYSIS

5.1 - Thresholds of Significance

This report analyzes potential project impacts according to the following criteria of significance. The proposed project would result in a significant impact if the project would result in:

- a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- b) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;
- c) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project; or
- d) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

5.2 - Methodology

FirstCarbon Solutions evaluated the proposed project's noise impacts through modeling of project noise impacts detailed below.

5.2.1 - SoundPlan Noise Modeling Software

SoundPlan's road noise algorithms are based on the FHWA Traffic Noise Model (FHWA TNM Model). The SoundPlan Model requires the input of roadway geometries and traffic volumes. Stationary noise sources with associated frequency spectrums, sound barriers, terrain contour lines, building placement, and specific ground coverage zones may be incorporated as well. The site plan and aerial photos were used to determine the placement of the terrain contours, roadways and existing structures. The default temperature of 20 degrees Celsius (68 degrees Fahrenheit) and default humidity of 50 percent, which can vary the propagation of noise, were used in the analysis and represent reasonable assumptions, since they are near the averages experienced in the project vicinity.

5.2.2 - Existing Noise Sources

US 101 Assumptions

The SoundPlan model analyzed the noise impacts from US 101 on the project vicinity. US 101 was analyzed based on a single-lane-equivalent noise source combining both directions of travel. The roadway parameters used for the SoundPlan modeling are presented in Table 5. The roadway classification is based on the City of Agoura Hills General Plan Circulation Element. The roadway speed is based on the posted speed limits and the existing and average daily traffic were obtained from Caltrans (Caltrans, 2016).

Roadway	General Plan Classification	Vehicle Speed (miles per hour)	Average Daily Traffic (ADT)		
US 101	Freeway	65	175,000		
Source: City of Agoura Hills, 2010; Caltrans, 2016.					

Table 5: SoundPlan Model Road Parameters

Table 6 presents the hourly traffic flow distributions (vehicle mix) used in this analysis. The vehicle mix was obtained from 2015 Annual Average Daily Truck Traffic on the California State Highway System (Caltrans, 2016). The vehicle mix provides the hourly distribution percentages of automobiles, medium trucks, and heavy trucks for input into the SoundPLAN Model.

	Percent of Hourly Distribution				
Vehicle Type	Day (7:00 a.m. to 7 p.m.)	Evening (7 p.m. to 10:00 p.m.)	Night (10:00 p.m. to 7:00 a.m.)	Overall	
Automobiles	65.8	13.5	15.8	95.1	
Medium Trucks	2.1	0.4	1.0	3.4	
Heavy Trucks	0.9	0.1	0.5	1.5	
Source: FirstCarbon Solutions, 2017.					

Table 6: US 101 Vehicle Mix

Modeling Calibration

A receiver was placed at the location of the long-term noise measurement site in order to assist in the calibration of the noise sources inputted into the model, as well as to verify the accuracy of the SoundPlan model. Table 7 provides a summary of the calculated results, and a comparison with the measured results.

Table 7: SoundPlan Model Calibration to Noise Measurement

Site No.	Site Description	Calculated Noise Level ¹ (dBA CNEL)	Measured Noise Level ² (dBA CNEL)	Difference
1	North of project site, on power pole near closest homes to project site.	63.0	63.7	-0.7
Note: ¹ Noise Leve ² Average n Source: First	el calculated from SoundPlan Version oise level (L _{eq}) from entire measurement. Carbon Solutions, 2017.			

Table 7 shows the model calibration accuracy to the long-term noise measurement and found that the model is within 0.7 dBA of the measured noise level, which is within the range of allowed tolerances as described in Section 4.4.1, Routine Model Calibration, of the TeNS (Caltrans, 2013). Therefore, based on the field noise measurements, the SoundPlan Model provides an accurate representation of the project area noise levels.

With Project Noise Sources

In order to determine the noise impacts from the proposed on-site noise sources on the nearby sensitive receptors, the SoundPlan modeling software was utilized. Each of the following details anticipated on-site noise sources associated with operation of the proposed project.

With Project Parking Lot Assumptions

The SoundPlan model analyzed the noise impacts from the proposed project's parking lot. The parking lot emission source is based on the different tonal contents typically created from parking lots and is primarily from engine and tire noise, slamming of doors, pedestrians, and street sweepers. The proposed project's parking lot would provide 49 parking spaces. The movement per parking space per hour was calculated from the ITE Trip Generation Report which found that Assisted Living Facilities can generate up to 2.74 daily trips per unit, which results in up to 206 daily trips or parking movements generated from the proposed project. From observations of other assisted living communities, it was determined that 80 percent of the trips occurred between 7:00 a.m. and 10:00 p.m. and 20 percent of the trips occurred between 10:00 p.m. and 7:00 a.m. The parking lot was modeled based on 0.22 movements per space per hour between 7:00 a.m. and 10:00 p.m. and 7:00 a.m.

With Project Rooftop Mechanical Equipment

The SoundPlan model analyzed the noise impacts from the proposed rooftop mechanical equipment on the proposed assisted living community structure. In order to determine noise created from the proposed rooftop mechanical equipment, a noise measurement was taken of an HVAC unit on a similar building. The noise measurement found that the HVAC units create noise levels of 66.6 dBA L_{eq} at 10 feet from the HVAC unit. Since the locations of the rooftop mechanical equipment is not yet known, in order to provide a worst-case analysis, a unit was placed at every 20 feet around the perimeter of the roof. Each unit was modeled as a point source in the SoundPlan model located 3 feet above the elevation of the roof and calibrated to 66.6 dBA at 10 feet. The HVAC units were modeled as being operational 50 percent of the time between 7:00 a.m. and 10:00 p.m. and 25 percent of the time between 10:00 p.m. and 7:00 a.m., which is based on observations of operational units while obtaining the reference noise measurement.

With Project Truck Loading Area

The SoundPlan model analyzed the noise impacts from the proposed truck loading area on the north side of the proposed structure. In order to determine the noise created from the truck loading area a field noise measurement was taken approximately 30 feet from a vendor truck unloading at a commercial center, which measured a noise levels of 54.8 dBA L_{eq} . The entire vendor truck visit lasted for approximately 10 minutes. The vendor truck loading area was modeled as an area source located 3 feet above ground level and was calibrated to the measured 54.8 dBA L_{eq} at 30 feet. The

1/3 octave center frequency sound pressure levels from the reference noise measurement was inputted into the SoundPlan Model, in order for the Model to calculate the appropriate sound attenuation rates. It is anticipated that the proposed project would receive up to two deliveries per day. This resulted in the truck loading area being active for 2 percent of the time between 7:00 a.m. and 10:00 p.m.

With Project Diesel Back-up Generator

The SoundPlan model analyzed the noise impacts from the proposed diesel back-up generator for the proposed project. Since the exact location of the back-up generator has not yet been determined, this analysis utilized a worst-case assumption of it being located in the northernmost area of the project site, adjacent to the proposed parking lot. Since the exact generator has not yet been chosen, the generator noise level was based on the CAT XQ800, which is a 795 kW generator that produces a noise level of 74 dB at 7 meters (23 feet). The generator was modeled in the SoundPlan model as an area source placed 4 feet above ground level and was calibrated to 74 dB at 7 meters. It is anticipated that under regular operations, the back-up generator would cycle for 30 minutes once per week during the daytime. This resulted in the generator being active for 3 percent of the time between 7:00 a.m. and 10:00 p.m.

5.3 - Exceedance of Noise Standards Impacts

5.3.1 - Construction Noise Impacts

Two types of short-term noise impacts could occur during the construction of the proposed project. First, construction crew commutes and the transport of construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the project site. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance, the effect on longer-term (hourly or daily) ambient noise levels would be small. Therefore, short-term construction-related impacts associated with worker commute and equipment transport to the project site would be less than significant.

The second type of short-term noise impact is related to noise generated during construction on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase. Table 1 lists typical construction equipment noise levels, based on a distance of 50 feet between the equipment and a noise receptor. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings. Impact equipment such as pile drivers are not expected to be used during construction of this project.

The site preparation and grading phase of the project is expected to require the use of rubber tired dozers, tractors, front-end loaders, backhoes, excavators, and graders. The building construction

phase is expected to require the use of cranes, forklifts, portable generators, tractors, front-end loaders, backhoes, and welder torches.

The Federal Highway Administration's (FHWA) Roadway Construction Noise Model was used to calculate construction noise levels at nearby sensitive receptors surrounding the project site during each phase of construction. The modeled receptor locations represent the closest residential units to the west, south, east, and north of the project site. The modeled construction phases included the site preparation and grading phase and the building construction phase. A worst-case scenario was modeled assuming each piece of modeled equipment would operate simultaneously at the nearest reasonable locations to each modeled receptor. Overall average daily project construction noise levels would be much lower than this reasonable worst-case scenario as all equipment would not always operate simultaneously and would also be lower as the equipment operates toward the center of the project site further from off-site receptors. A summary of the modeling results are shown in Table 8. The construction noise modeling assumptions and outputs are provided in Appendix A of this report.

	Site Preparation/Grading Phase		Building Construction Phase	
Receptor Location	L _{eq}	L _{max}	L _{eq}	L _{max}
R-1: Commercial building west of site	85.8	85.9	71.3	73.4
R-2: Residential use to northwest	63.0	62.0	59.7	61.1
R-3: Residential use to northeast	61.3	59.8	58.0	59.1

Table 8: Construction Noise Model Results Summary (dBA)

The City of Agoura Hills' Municipal Code outlines the City's standards for noise-producing construction activities. Construction activities that would produce noise levels in excess of the noise performance standards are restricted to the hours of 7:00 a.m. and 8:00 p.m., on weekdays, including Saturday, and are not permitted at any time on Sunday or a legal holiday. Therefore, restricting construction activities to these stated time periods, as well as implementing the best management noise reduction techniques and practices outlined in Mitigation Measure (MM) NOI-1, would ensure that potential short-term construction noise impacts on sensitive receptors in the project vicinity would be reduced to less than significant.

Mitigation Measures

- **MM NOI-1** Implementation of the following multi-part mitigation measure is required to reduce potential construction period noise impacts:
 - The construction contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.
 - The construction contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.

- The construction contractor shall utilize "quiet" models of air compressors and other stationary noise sources where technology exists.
- At all times during project grading and construction, the construction contractor shall ensure that stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from adjacent residences.
- The construction contractor shall ensure that the construction staging areas shall be located to create the greatest feasible distance between the staging area and noise-sensitive receptors nearest the project site.
- All on-site demolition and construction activities, including deliveries and engine warm-up, shall be restricted to the hours of 7:00 a.m. and 8:00 p.m., Monday through Saturday. No such activities shall be permitted on Sundays or federal holidays.

5.3.2 - Operational Noise Impacts

Section 9656.2 of the Municipal Code limits the exterior noise level at the nearby homes to 55 dBA between 7:00 a.m. and 10:00 p.m. and to 50 dBA between 10:00 p.m. and 7:00 a.m. Section 9656.3 of the Municipal Code limits the interior noise level at the nearby homes to 45 dBA 24 hours per day. Since a typical home provides 15 dB of attenuation with the windows open, only the exterior noise levels have been analyzed, since it is not possible for an interior noise impact to occur without an exterior noise impact occurring as well.

In order to determine if the proposed project would exceed the City's operational noise performance standards, the on-site noise sources with development of the proposed project were modeled in the SoundPlan model based on the parameters detailed above in Section 5.2. The results are summarized in Table 9 for the With Project On-site Only noise impacts, and the SoundPlan printouts are provided in Appendix D.

		Noise Lev	el (dBA L _{eq})		
Receiver ⁽¹⁾	Description	7:00 a.m.–10:00 p.m.	10:00 p.m.–7:00 a.m.		
1	Single-family home northwest of project site	36.9	33.6		
2	Single-family home northwest of project site	37.6	34.2		
3	Single-family home north of project site	34.9	31.6		
4	Single-family home northeast of project site	28.3	25.2		
5	Single-family home northeast of project site	27.1	24.0		
6	Single-family home northeast of project site	26.4	23.4		
City of Agoura Hills Residential Exterior Noise Standard ¹ 55 50					
Note: ¹ From Section 9659.2 of the City of Agoura Hills Municipal Code.					

Table 9: With Project On-site Only Noise Sources Noise Impacts at Nearby Homes

Source: SoundPLAN Version 7.4; FirstCarbon Solutions, 2017.

Table 9 shows that the on-site non-transportation noise levels with development of the proposed project would be below the City's daytime and nighttime non-transportation operational noise performance standards for receiving residential properties. Therefore, operational noise impacts on nearby residential land uses would be less than significant.

Combined Off-site Roadway and On-site Noise Impacts to Nearby Homes

Even though the above analysis of the on-site noise sources demonstrated that the noise generated on-site would be within City noise standards at the nearby homes, it is possible that the combined on-site noise with the off-site roadway noise may still exceed these standards. Section 9656.2 of the Municipal Code limits the exterior noise level at the nearby homes to 55 dBA between 7:00 a.m. and 10:00 p.m. and to 50 dBA between 10:00 p.m. and 7:00 a.m. Section 9656.2 of the Municipal Code also provides an exemption for situations where the ambient noise currently exceeds these noise standards, and for those cases the ambient noise level then becomes the noise standard.

The proposed project's potential combined roadway and on-site noise impacts have been calculated through a comparison between the existing without-project scenario and the existing with project scenario. The results of this comparison are shown in Table 10 and the SoundPlan printouts are provided in Appendix A. Exhibit 5 shows the combined with project noise contours.

	Daytime (7:00 a.m10:00 p.m.)			Nighttime (10:00 p.m7:00 a.m.)		
Receiver ¹	No Project (dBA L _{eq})	With Project (dBA L _{eq})	Increase	No Project (dBA L _{eq})	With Project (dBA L _{eq})	Increase
1	59.6	57.4	-2.2	55.8	53.7	-2.1
2	60.7	59.7	-1.0	57.0	55.9	-1.1
3	58.4	58.0	-0.4	54.6	54.2	-0.4
4	49.0	48.7	-0.3	45.7	45.3	-0.4
5	49.5	49.4	-0.1	46.0	45.9	-0.1
6	52.9	53.1	0.2	49.4	49.4	0.0
Thr	eshold	55	—	—	50	—
Notes: ¹ Locations of Receivers shown in Exhibit 5						

Table 10: Combined Off-site Roads and On-site Noise Level Contributions

Source: SoundPLAN Version 7.4; FirstCarbon Solutions, 2017.

Table 10 shows that for the combined conditions, noise level contributions from the proposed project to the analyzed receivers would range from -2.2 dBA to 0.2 dBA L_{eq} . The reduction of noise would be created from the shielding that the proposed structure would provide from US 101, which is the primary noise source in the project vicinity. The only increase in noise would occur at Receiver 6 for the Daytime condition, where the noise level would increase by 0.2 dBA to 53.1 dBA L_{eq} . Since the with-project daytime noise level at Receiver 6 is within the City's 55 dBA residential exterior

noise standard, a less than significant noise impact would occur from operation of the proposed project.

5.3.3 - On-site Traffic Noise Impacts

A significant impact would occur for the proposed senior assisted living type land use development if the project would be exposed to transportation noise levels in excess of the City's "clearly compatible" or "normally compatible" land use compatibility standards of 60 dBA or 70 dBA CNEL, respectively. The exterior noise level standard applies at outdoor activity areas for such uses.

Traffic noise levels for the adjacent segment of US Highway 101 were calculated using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). Site-specific information is entered, such as roadway traffic volumes, roadway active width, source-to-receiver distances, travel speed, noise source and receiver heights, and the percentages of automobiles, medium trucks, and heavy trucks that the traffic is made up of throughout the day, amongst other variables. The model inputs and outputs are provided in Attachment A of this report. The traffic noise model results show that traffic noise levels along this highway segment range up to 86 dBA CNEL at 50 feet from the centerline of the outermost travel lane. The exterior active use area of the project is located approximately 240 feet from the centerline of the outermost travel lane. The project includes outdoor active use areas in an interior courtyard area, and a couple of patio areas on the west and east sides of the building. For the interior patio area, the additional shielding of the two-story structure would provide a minimum reduction of 18 dBA. Thus, noise from traffic would be below 58.7 dBA CNEL at the outdoor active use area of the project. This is below the City's "clearly compatible" land use compatibility standard of 60 dBA CNEL.

The exterior patio area on the east side of the building (the memory care garden patio) would be exposed to traffic noise levels up to 66.3 dBA CNEL. This is within the City's "normally compatible" land use compatibility standard of 70 dBA CNEL for this type of land use development. This standard permits development to occur assuming that conventional construction, but with closed windows and a fresh air supply system or air conditioning, will normally suffice as a noise insulation feature to meet the City's interior noise level standards for these conditionally acceptable environments. Interior noise exposure impacts are discussed below. Therefore, these noise levels for this outdoor active use area would be considered acceptable and a less than significant impact.

However, the exterior patio area on the west side of the building (a dining patio) could be exposed to traffic noise levels of up to 72.2 dBA CNEL. This would exceed the City's "normally compatible" standard of 70 dBA CNEL. This would be a significant impact. The project proposes construction of a 3.5-foot high wall around this patio. However, with implementation of a 6-foot high wall on the south and west-facing portions of this patio area, the resulting traffic noise levels would be reduced to below 66.6 dBA CNEL at this outdoor active use area.

A significant impact would also occur for the proposed senior assisted living type land use development if the project would be exposed to noise that would result in an exceedance of the interior noise exposure standard of 45 dBA CNEL for the proposed land use. According to the City's policies, the interior noise level standard is typically satisfied with windows in the closed position and the supply of mechanical ventilation that conform to Uniform Building Code (UBC) requirements.



Source: SountPlan Version 7.4



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Exhibit 5 With Project Noise Contour Map

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Based on the EPA's Protective Noise Levels (EPA 550/9-79-100, November 1978), with a combination of walls, doors, and windows, standard construction for northern California residential buildings would provide approximately 25 dBA in exterior to interior noise reduction with windows closed and approximately 15 dBA with windows open. The project would include mechanical ventilation that conforms to the UBC requirements for multi-family dwellings that would permit windows to remain closed for prolonged periods of time. The nearest façade is approximately 165 feet from the centerline of the outermost travel lane of US 101. At this distance traffic noise levels would range up to 79.2 dBA CNEL.

Therefore, even with windows closed, resulting interior noise levels could exceed the interior noise standard of 45 dBA CNEL (79.2 dBA–25 dBA = 54.2 dBA). Therefore, the project must incorporate upgraded wall assemblies to reduce this impact to less than significant. Therefore, all project wall assemblies (windows, doors, and wall combinations) that are directly exposed to US 101 should be upgraded to have a combined minimum standard transmission class (STC) rating of STC-40. All wall assemblies that are indirectly exposed (i.e., perpendicular to the roadway) to the centerline of US 101 should be upgraded to have a combined minimum rating of STC-36.

The wall assemblies of these indicated façades should be upgraded to perform at the indicated minimum STC ratings in order to provide the necessary exterior to interior noise attenuation within a reasonable margin of safety. Quality control must be exercised in construction to ensure all air-gaps and penetrations of the building shell are controlled and sealed.

Mitigation Measures

- MM NOI-2a All project wall assemblies (windows, doors, and wall combinations) that are directly exposed to US 101 should be upgraded to have a combined minimum standard transmission class (STC) rating of STC-40. All wall assemblies that are indirectly exposed (i.e., perpendicular to the roadway) to the centerline of US 101 should be upgraded to have a combined minimum rating of STC-36.
- MM NOI-2b A 6-foot high wall shall be constructed on the west and south-facing sides of the dining patio (located on the west side of the building) in place of the proposed 3.5-foot high wall.

5.4 - Substantial Permanent Increase Impacts

As noted in the characteristics of noise discussion, audible increases in noise levels generally refer to a change of 3 dBA or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. A change of 5 dBA is considered to be the minimum change considered readily perceptible to the human ear in outdoor environments. Therefore, for purposes of this analysis, an increase of 5 dBA or greater would be considered a substantial permanent increase in ambient noise levels. Another characteristic of noise is that a doubling of sound sources with equal strength is required to result in even a perceptible increase (defined to be a 3 dBA or greater increase) in noise level.

Implementation of the project would not result in a doubling of traffic volumes along any roadway segment in the project vicinity. The proposed project would generate fewer than 10 percent of the daily average trips of the adjacent Canwood Street; thus, implementation of the project is not expected to result in even a perceptible increase (defined to be a 3-dBA or greater increase) in traffic noise levels on any of the local roadways in the project vicinity. Therefore, project-related traffic noise impacts on off-site receptors would be less than significant.

Additionally, as shown in the impact discussion Section 5.3.2—Operational Noise Impacts, the proposed project would not include any stationary noise sources that would result in permanent increases in ambient noise levels in the project vicinity above levels existing without the project. Therefore, potential permanent operational noise increase impacts resulting from implementation of the proposed project would be less than significant.

5.5 - Substantial Temporary or Periodic Increase Impacts

5.5.1 - Temporary Construction Noise Impacts

As is noted in the previous discussion, for purposes of this analysis, an increase of 5 dBA or greater would be considered a substantial increase. Implementation of the project would result in short-term increases in ambient noise levels due to demolition and construction activities. Construction noise impacts were analyzed in the impact discussion Section 5.3.1,—Construction Noise Impacts, above. As was documented in the ambient noise monitoring effort, the daytime hourly average noise level at the nearest residential property line is 59.6 dBA L_{eq} . Modeled project-related construction activities could result in high intermittent noise levels of up to approximately 63.0 dBA L_{eq} at the closest noise-sensitive land uses. These reasonable worst-case construction noise levels would represent a maximum increase of approximately 3 dBA above existing conditions at the nearest residential. Therefore, construction-related temporary increases would be considered substantial. Therefore, construction-related temporary increases would be considered less than significant.

It should also be noted that the maximum noise levels from construction activities as measured at the nearest residential property lines would range up to 62.0 dBA L_{max} . However, as documented in the ambient noise monitoring effort, existing maximum noise levels at the nearest residential property line range up to 77.5 dBA L_{max} . Therefore, construction related maximum noise levels would not exceed maximum noise levels already experienced at the nearest residential property line.

In addition, compliance with the City's permissible hours of construction and implementation of MM NOI-1 requiring standard construction noise reduction measures (including required use of approved mufflers on equipment) would further reduce short-term construction impacts on sensitive receptors in the project vicinity. Therefore, construction-related temporary increases would be considered less than significant.

5.5.2 - Periodic Increase Noise Impacts

As stated in the City's noise ordinances, emergency vehicle noise is exempt from the noise performance standards of the Municipal Code. However, implementation of the project is anticipated to result in an increase in emergency vehicle responses to the project site compared to existing conditions. This would result in periodic increases in the ambient noise levels when emergency medical service response vehicles, such as ambulances, use sirens when approaching the project site.

Currently, there is no way to predict medical emergencies that require visits of emergency vehicles that could create an additional source of noise in the project vicinity. However, FCS has documented reference noise levels of emergency vehicle sirens. The loudest noise level measured for emergency vehicle siren noise was 89.5 dBA L_{max} at a distance of 130 feet from the emergency vehicle. In addition, FCS has also previously documented average numbers of emergency vehicle responses for other assisted living type land uses when analyzing public services impacts within environmental impact reports. Therefore, assuming a similar average response rate on a per-bed ratio, an average ambient noise level from emergency response vehicle siren noise can be calculated.

The emergency vehicle response data was obtained from the County of Los Angeles Fire Department for the year 2016 for the Oakmont of Santa Clarita and the Meadowbrook Senior Living facility in Agoura Hills. For Oakmont of Santa Clarita, an 86 bed facility, there was a total of 79 EMS response calls in the year 2016. At Meadowbrook Senior Living, a 160 bed facility, there was a total of 176 EMS response calls in the year 2016. Specific details on what portion of the calls resulted in a vehicle responding to the sites with sirens sounding were not available. However, on a per bed ratio, these communities generated approximately 0.9 and 1.1 EMS response calls per bed per year, respectively.

The proposed project would contain approximately 75 residential units with a total of 86 beds. By utilizing the higher of the two emergency service response call rates calculated above (1.1 EMS calls per bed per year), the proposed project could potentially generate up to approximately 94 emergency medical service vehicle response calls per year. This would average approximately 1.8 response calls per week.

However, in order to calculate a reasonable worst-case scenario, a calculation can be made by assuming three emergency response calls being made in a single hour. This analysis assumes that the maximum siren noise would occur for up to one minute on the project driveway, and that the closest residential property line is located 650 feet from the project driveway. All the modeling assumptions for calculating the resulting average hourly noise levels for this worst-case emergency response vehicle siren noise are provided in Appendix A. Based on this worst-case scenario, the resulting hourly average noise level as measured at the nearest residential property line would be 52 dBA L_{eq} . The existing average hourly noise level at this location, as documented by the long-term ambient noise measurement is 59.6 dBA L_{eq} . Therefore, when added to the existing background noise levels, the combined hourly average noise level would be approximately 60 dBA L_{eq} . This would represent an increase of less than 1 dBA compared to conditions existing without the project as measured at the closest residential property line.

It should further be noted that many of the emergency response calls to similar assisted living facilities do not use sirens when approaching the facility. Therefore, the above analysis provides the most conservative analysis that could be anticipated for this project.

As this worst-case scenario would result in a less than 1 dBA increase in the average hourly noise level as measured at the nearest residential property line, project-related periodic increases due to emergency response vehicles responding to the project site would be less than significant.

5.6 - Excessive Groundborne Vibration Impacts

Project-related construction and operational groundborne vibration impacts are analyzed separately below.

5.6.1 - Short-term Construction Vibration Impacts

Groundborne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. Vibrating objects in contact with the ground radiate vibration waves through various soil and rock strata to the foundations of nearby buildings.

Of the variety of equipment used during construction, the vibratory rollers that are anticipated to be used in the site preparation phase of construction would produce the greatest groundborne vibration levels. Impact equipment such as pile drivers is not expected to be used during construction of this project. Large vibratory rollers produce groundborne vibration levels ranging up to 0.210 inch per second (in/sec) peak particle velocity (PPV) at 25 feet from the operating equipment.

The nearest off-site receptor is the commercial land use located immediately west of the project site, approximately 55 feet from the nearest construction footprint where heavy construction equipment would potentially operate. At this distance groundborne vibration levels could range up to 0.064 PPV from operation of a large vibratory roller. This is below the industry standard construction vibration damage criteria of 0.2 PPV for this type of structure, a building of non-engineered timber and masonry construction (see Table 4).

The nearest residential land uses are located over 315 feet to the north of the project site. At this distance, construction-related groundborne vibration would attenuate to below 0.005 PPV. This is well below the industry standard construction vibration damage criteria of 0.2 PPV for these types of structures, buildings of non-engineered timber and masonry construction (see Table 4). Therefore, construction-related groundborne vibration impacts would be less than significant.

5.6.2 - Operational Vibration Impacts

Implementation of the project would not include any permanent sources that would expose persons in the project vicinity to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the project vicinity. In addition, there are no existing significant permanent sources of groundborne vibration in the project vicinity to which the proposed project would be exposed. Therefore, project operational groundborne vibration level impacts would be considered less than significant.

SECTION 6: REFERENCES

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Appendix A: Noise Monitoring and Modeling Data

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Summary					
Filename	LxT_Data.204				
Serial Number	4228				
Model	SoundTrack LxT [®]				
Firmware Version	2.206				
liser					
location					
Lob Description					
Nete					
Measurement Description					
Measurement Description	27/05/2017 12 00 05				
Start	2//06/201/ 12:09:06				
Stop	28/06/2017 12:09:07				
Duration	1 Day 00:00:00.8				
Run Time	1 Day 00:00:00.8				
Pause	0:00:00.0				
Pre Calibration	27/06/2017 12:05:37				
Post Calibration	None				
Calibration Deviation					
Overall Settings					
RMS Weight	A Weighting				
Peak Weight	A Weighting				
Detector	Slow				
Preamn	DRMI vT2B				
Microphone Correction	Off				
Integration Method	Linoar				
Querland					
Overload	145.7 UB		-		
	A	C	Z		
Under Range Peak	101.9	98.9	103.9 dB		
Under Range Limit	37.9	35.9	43.9 dB		
Noise Floor	25.3	25.8	33.1 dB		
Results					
LAeq	58.6 dB				
LAE	107.9 dB				
EA	6.918 mPa ²	ĥ			
EA8	2.306 mPa ²	ĥ			
EA40	11.529 mPa ²	ĥ			
LApeak (max)	27/06/2017 12:14:42	107.0 dB			
LASmax	28/06/2017 11:22:19	77.5 dB			
LASmin	28/06/2017 03:08:53	38.8 dB			
SEA	-99.9 dB				
LAS > 85.0 dB (Exceedence Counts / Duration)	0	0.0 s			
LAS > 115.0 dB (Exceedence Counts / Duration)	0	0.0 s			
Apeak > 135.0 dB (Exceedence Counts / Duration)	0	0.0 s			
Aneak > 137 0 dB (Exceedence Counts / Duration)	0	0.0 s			
Aneak > 140.0 dB (Exceedence Counts / Duration)	0	0.0 s			
Expeak > 140.0 db (Exceedence Counts / Duration)	0	0.0 3			
Community Noise	Idn IDa	07.00-22.00 Night 22.00	07.00 Iden IDay 0	7.00-19.00 Evening	19-00-22-00 I Night 22-00-07-00
community Noise	62.2	50 C	EG1 627	FO C	ENG E E
10	03.2	59.0	50.1 05.7	59.0	59.0 50.1
LCeq	64.7 dB				
LAeq	58.6 dB				
LCeq - LAeq	6.2 dB				
LAleq	59.6 dB				
LAeq	58.6 dB				
LAleq - LAeq	1.1 dB				
# Overloads	0				
Overload Duration	0.0 s				
Dose Settings					
Dose Name	OSHA-1	OSHA-2			
Exch. Rate	5	5 dB			
Threshold	90	80 dB			
Criterion Level	90	90 dB			
Criterion Duration	20 2	8 h			
	0	0.11			

Project Number: 3316.0016	Sheetof
Test Personnel: <u>Conner Tindall</u>	
* Take Photos	
Noise Measurement Survey	
Site Number: Date: Date: Time: From	To
Site Location: Neur residutiul bachyard o in Agourn hills.	hill
Primary Noise Sources: Freeway noise, birds, Car freeway	Across Agriction Comments

Measurement Results

	dBA
Leq	
Lmax	
Lmin	
Lpeak	
L5	
L10	
L50	
L90	
SEL	

Observed Noise Sources/Events

Time	Noise Source/Event	dBA
_		

Comments:

Measured Difference:	Oros dBA
Slow Fast	Windscreen□

Atmospheric Conditions:

Maximum Wind	Average Wind		Relative	
Velocity (mph)	Velocity (mph)	Temperature (F)	Humidity (%)	
8 mph	Smph	90°F	26%	
Comments:				

Photos Taken:

Photo Number	Location/Description

Traffic Description:

Roadway	# Lanes	Posted Speed	Average Speed	NB/EB Counts	SB/WB Counts
				0	





Photograph 4: Trees and power lines to the east

Oakmont of Agoura Hills Assessed receiver levels - Existing Noise Levels

Name	Usage	Floor	Dir	Ldn	Leq,d	Leq,e	Leq,n	
				dB(A)	dB(A)	dB(A)	dB(A)	
1	RS	G	S	63.4	59.6	58.5	55.8	
2	RS	G	S	64.5	60.7	59.7	57.0	
3	RS	G	S	62.1	58.4	57.3	54.6	
4	RS	G	SW	53.1	49.0	47.9	45.7	
5	RS	G	S	53.4	49.5	48.4	46.0	
6	RS	G	SE	56.8	52.9	51.9	49.4	
Noise Measurement	RA	G		63.0	59.2	58.2	55.4	

FirstCarbon Solutions

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Oakmont of Agoura Hills Assessed receiver levels - With Project Onsite Only

			_					
Name	Usage	Floor	Dir	Ldn	Leq,d	Leq,e	Leq,n	
				dB(A)	dB(A)	dB(A)	dB(A)	
1	RS	G	S	41.2	36.9	36.9	33.6	
2	RS	G	S	41.8	37.6	37.6	34.2	
3	RS	G	S	39.1	34.9	34.9	31.6	
4	RS	G	SW	32.7	28.3	28.3	25.2	
5	RS	G	S	31.5	27.1	27.1	24.0	
6	RS	G	SE	30.9	26.4	26.4	23.4	

FirstCarbon Solutions

Octave spectra of the sources in dB(A) - With Project Onsite Only

Name	Source	> ×	N	l or /		w Lw	Y	KT [Day histogram	Spectrum	8Hz	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz
	_	E E	E	m,m	² dB(.	(A) dB(/	A) dB	dB			dB(A)											
Generator	Area	204.3 24	18.3 28	2.0 3.	72 90.	7 96.4	· 0.0	0.0	Senerator (C4.76 Diesel				88.8	92.9	83.4	85.8	88.0	84.2	81.0	70.9	
HVAC 1	Point	223.6 15	37.7 28	6.9	88.0	0 88.0	0.0	0.0	-IVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 2	Point	222.2 15	31.8 28	6.9	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 3	Point	220.8 15	35.8 28	6.9	88.1	0 88.0	0.0	0.0	-IVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 4	Point	219.5 17	79.9 28	6.9	88.0	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 5	Point	218.1 17	74.0 28	6.9	88.(0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 6	Point	216.7 16	38.0 28	6.9	88.(0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 7	Point	215.3 16	32.1 28	6.9	88.0	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 8	Point	213.9 15	56.1 28	6.9	88.	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 9	Point	212.6 15	50.2 28	6.9	88.0	0 88.0	0.0	0.0	-IVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 10	Point	216.6 14	13.1 28	6.9	88.(0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 11	Point	222.6 14	11.9 28	6.9	88.0	0 88.0	0.0	0.0	-IVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 12	Point	228.6 14	t0.7 28	6.9	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 13	Point	234.5 15	39.4 28	6.9	88.1	0 88.0	0.0	0.0	-IVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 14	Point	240.5 15	38.2 28	6.9	88.1	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 15	Point	246.5 15	37.0 28	6.9	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 16	Point	252.4 15	35.7 28	6.9	88.1	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 17	Point	258.4 15	34.5 28	6.9	88.1	0 88.0	0.0	0.0	-IVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 18	Point	264.4 15	33.2 28	16.2	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 19	Point	271.4 15	36.0 28	15.4	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 20	Point	273.0 14	11.9 28	15.7	88.1	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 21	Point	274.6 14	47.8 28	5.9	88.1	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 22	Point	276.2 15	53.7 28	6.3	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 23	Point	277.8 15	59.6 28	6.9	88.1	0 88.0	0.0	0.0	-IVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 24	Point	279.4 16	35.5 28	6.9	88.1	0 88.0	0.0	0.0	-IVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 25	Point	281.0 17	71.3 28	6.9	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 26	Point	282.6 17	77.2 28	6.9	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 27	Point	284.2 15	33.1 28	6.9	88.1	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 28	Point	284.3 16	39.4 28	6.9	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 29	Point	278.3 15	30.8 28	6.9	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 30	Point	272.4 15	32.2 28	6.9	88.1	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 31	Point	266.5 15	33.6 28	6.9	88.1	0 88.0	0.0	0.0	HVAC I	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 32	Point	260.5 15) 5.0 28	6.9	88.1	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 33	Point	254.6 15	96.4 28	6.9	88	0 88.0	0.0	0.0	-IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
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SoundPLAN 7.4

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SoundPLAN 7.4

Oakmont of Agoura Hills Source level parking lots - With Project Onsite Only

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Oakmont of Agoura Hills Assessed receiver levels - With Project Combined Onsite and Offsite Road Noise

Name	Usage	Floor	Dir	Ldn	Leq,d	Leq,e	Leq,n	
				dB(A)	dB(A)	dB(A)	dB(A)	
1	RS	G	S	61.4	57.6	56.5	53.8	
2	RS	G	S	63.6	59.8	58.8	56.0	
3	RS	G	S	61.7	58.0	56.9	54.2	
4	RS	G	SW	53.4	49.4	48.3	45.9	
5	RS	G	S	53.1	49.2	48.1	45.7	
6	RS	G	SE	56.9	53.0	51.9	49.4	
Dining Patio	RS	G		72.2	68.4	67.4	64.6	
Memory Care	RS	G		66.3	62.4	61.4	58.8	

FirstCarbon Solutions

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Oakmont of Agoura Hills	Octave spectra of the sources in dB(A) - With Project Combined Onsite and Offsite Road Noise

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Name	Source type X	>	N	I or A	L.	۲ ۲	>	I KT E	Jay histogram	Spectrum	8Hz	16Hz	31Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	6kHz
	<u>е</u>	Ξ	<u></u>	m,m²	dB(A) dB(.	A) dE	3 dB			dB(A)											
Generator	Area	204.3 2	348.3 282	2.0 3.7	'2 90.7	7 96	4 0.0	0.0 0	Senerator	C4.76 Diesel				88.8	92.9	83.4	85.8	88.0	84.2	81.0	70.9	
HVAC 1	Point	223.6	197.7 286	3.9	88.(0.88.	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 2	Point	222.2	191.8 28(3.9	88.(0 88.	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 3	Point	220.8	185.8 286	3.9	88.(3 88.ú	0.0	0.0 F	HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 4	Point	219.5	179.9 286	3.9	88.() 88.i	0.0	0.0 F	HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 5	Point	218.1	174.0 286	3.9	88.(C 88.0	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 6	Point	216.7	168.0 286	3.9	88.() 88.(0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 7	Point	215.3	162.1 286	3.9	88.() 88.(0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 8	Point	213.9	156.1 286	3.9	88.() 88.(0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 9	Point	212.6	150.2 286	3.9	88.(0 88.0	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 10	Point	216.6	43.1 286	3.9	88.(0 88.0	0.0	0.0 F	+VAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 11	Point	222.6	41.9 286	3.9	88.(0 88.0	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 12	Point	228.6	140.7 286	3.9	88.(0 88.0	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 13	Point	234.5	139.4 286	3.9	88.() 88.(0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 14	Point	240.5	138.2 286	3.9	88.() 88.	0.0	0.0 1	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 15	Point	246.5	137.0 286	3.9	88.(C 88.0	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 16	Point	252.4	135.7 286	3.9	88.() 88.(0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 17	Point	258.4	134.5 286	3.9	88.() 88.(0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 18	Point	264.4	133.2 286	3.2	88.() 88.(0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 19	Point	271.4	136.0 28t	5.4	88.(0 88.0	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 20	Point	273.0	141.9 28	5.7	88.(0 88.0	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 21	Point	274.6	147.8 285	5.9	88.(0 88.0	0.0	0.0 F	HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 22	Point	276.2	153.7 286	3.3	88.(98.1	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 23	Point	277.8	159.6 286	3.9	88.(0 88.0	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 24	Point	279.4	165.5 286	3.9	88.(98.0	0.0	0.0 F	HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 25	Point	281.0	171.3 286	3.9	88.(3 88.i	0.0	0.0 F	HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 26	Point	282.6	177.2 286	3.9	88.(0 88.u	0.0	0.0 F	HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 27	Point	284.2	183.1 286	3.9	88.(3 88.0	0.0	0.0 F	HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 28	Point	284.3	189.4 286	3.9	88.() 88.i	0.0	0.0 F	HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 29	Point	278.3	190.8 286	3.9	88.() 88.i	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 30	Point	272.4	192.2 286	3.9	88.(0 88.0	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 31	Point	266.5	193.6 286	3.9	88.() 88.I	0.0	0.0 1	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 32	Point	260.5	195.0 286	3.9	88.(0 88.0	0.0	0.0 F	IVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	64.8	58.8
HVAC 33	Point	254.6	196.4 28(9.0	88.(0 88.	0 0.0	0.0 F	HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	64.8	58.8
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SoundPLAN 7.4

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oura Hills ect Combined Onsite and Offsite Road Noise	8kHz 64.8 64.8 60.0	
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	1kHz dB(A) 82.9 82.9 82.9 74.6	
	500Hz dB(A) 84.1 84.1 73.9 87.9 87.9	
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it of Aç	Spectrum HVAC HVAC HVAC Truck Loading	arbon Sol
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	Name HVAC 34 HVAC 35 HVAC 36 HVAC 37 Parking	

Oakmont of Agoura Hills Source level parking lots - With Project Combined Onsite and 14 **Offsite Road Noise** PPT KPA κı KD ΤL KStrO Unit B0 Size B Parking lot f Parking Visitors and staff 0.00 4.00 4.01 0.00 1 parking 49.00 1.00 1 1

FirstCarbon Solutions

Oakmont of Agoura Hills Assessed receiver levels - Mitigated With Project Combined Onsite and Offsite Road Noise

Name	Usage	Floor	Dir	Ldn	Leq,d	Leq,e	Leq,n	
				dB(A)	dB(A)	dB(A)	dB(A)	
1	RS	G	S	61.4	57.6	56.5	53.9	
2	RS	G	S	63.6	59.8	58.8	56.0	
3	RS	G	S	61.7	58.0	56.9	54.2	
4	RS	G	SW	53.4	49.4	48.3	45.9	
5	RS	G	S	53.1	49.2	48.1	45.7	
6	RS	G	SE	56.9	53.0	51.9	49.4	
Dining Patio	RS	G		66.6	62.8	61.7	59.1	
Memory Care Garden	RS	G		66.3	62.4	61.4	58.8	

FirstCarbon Solutions

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Oakmont of Agoura Hills	Octave spectra of the sources in dB(A) - Mitigated With Project Combined Onsite and Offsite Road	Noise

20043 2005 377 800 300 000 Monter Monter <t< th=""><th>Bource X</th><th></th><th><u> </u></th><th>or A n,m²</th><th>L'w dB(A)</th><th>Lw dB(A)</th><th>조 원</th><th>KT Day dB</th><th>Spectrum</th><th>8Hz dB(A)</th><th>16Hz dB(A)</th><th>31Hz dB(A)</th><th>63Hz dB(A)</th><th>125Hz dB(A)</th><th>250Hz dB(A)</th><th>500Hz dB(A)</th><th>1kHz dB(A)</th><th>2kHz dB(A)</th><th>4kHz 8 dB(A) dl</th><th>kHz 16 B(A) dl</th><th>skHz B(A)</th></t<>	Bource X		<u> </u>	or A n,m²	L'w dB(A)	Lw dB(A)	조 원	KT Day dB	Spectrum	8Hz dB(A)	16Hz dB(A)	31Hz dB(A)	63Hz dB(A)	125Hz dB(A)	250Hz dB(A)	500Hz dB(A)	1kHz dB(A)	2kHz dB(A)	4kHz 8 dB(A) dl	kHz 16 B(A) dl	skHz B(A)
2225 1977 2669 680 000 000 MVAC 1567 716 446 685 745 777 641 222 643 586 2205 1650 5800 800 000 MVAC 1567 716 446 685 745 777 641 222 643 586 2161 740 5869 880 000 00 MVAC 1567 718 446 685 745 777 641 222 643 588 2155 1266 880 00 00 MVAC 1567 3118 446 685 745 777 641 222 643 588 2155 1511 846 685 745 777 641 226 643 688 688 648 685 745 777 641 226 643 648 685 745 777 641 226 643 648 <	204.3	248.3	282.0	3.72	90.7	96.4	0.0	0.0 Generator	C4.76 Diesel				88.8	92.9	83.4	85.8	88.0	84.2	81.0	6.07	
2222 1918 2669 980 00 000 HVAC 1507 3118 446 665 7.5 7.7 84.1 82.0 77.6 7.2 64.8 98.0 7151 7130 8809 8800 000 HVAC HVAC 1567 31.8 44.6 665 7.5 7.5 7.6 82.9 7.6 7.2 64.8 98.0 2151 1660 8800 000 HVAC HVAC 1567 31.8 44.6 665 7.5 7.7 64.1 82.9 7.6 7.2 64.8 98.0 2151 1869 880 000 01 HVAC HVAC 164 665 7.5 7.7 64.1 82.9 7.6 7.8 98.0 2156 1410 2800 000 01 HVAC HVAC 164.6 665 7.5 7.7 64.1 82.0 7.6 7.8 88.0 88.0 7.6 7.8 <td>223.6</td> <td>197.7</td> <td>286.9</td> <td></td> <td>88.0</td> <td>88.0</td> <td>0.0</td> <td>D.0 HVAC</td> <td>HVAC</td> <td>15.67</td> <td>31.18</td> <td>44.6</td> <td>68.5</td> <td>74.5</td> <td>7.77</td> <td>84.1</td> <td>82.9</td> <td>77.6</td> <td>72.2</td> <td>34.8</td> <td>58.8</td>	223.6	197.7	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	34.8	58.8
2016 1968 369.9 80.0 000 010 MMAC WMAC 151.1 44.6 66.5 7.5 7.7 64.1 82.9 77.6 7.2 64.8 56.8 216.1 176.0 286.9 80.0 00 010 MMAC MMAC 165.7 7.45 7.7 64.1 82.9 7.6 7.2 64.8 58.8 216.1 286.9 88.0 00 01 MMAC MMAC 165.7 7.45 7.7 64.1 82.9 7.6 82.8 88.8 215.1 66.1 286.9 88.0 00 01 MMAC MMAC 166.6 65.7 7.5 7.5 7.6 87.8 88.8 88.8 88.8 215.1 66.11 280.9 000 01 MMAC MMAC MMAC 166.7 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6 7.6	222.2	191.8	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
13 13 34 34<	220.8	185.8	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
11 11 14 15 77 641 523 775 641 523 745 777 641 523 648 536 2163 1630 2660 800 00 00 HWC 1667 3118 446 665 745 777 641 522 648 583 21513 1621 2869 800 00 00 HWC 1567 3118 446 685 745 777 641 522 648 588 2156 1413 2869 800 00 00 HWC 1567 3118 446 685 745 777 641 829 766 722 648 588 2235 1313 1419 685 745 777 641 829 766 722 648 588 2235 1318 446 685 745 777 641 829 766 772 648 <td>219.5</td> <td>179.9</td> <td>286.9</td> <td></td> <td>88.0</td> <td>88.0</td> <td>0.0</td> <td>0.0 HVAC</td> <td>HVAC</td> <td>15.67</td> <td>31.18</td> <td>44.6</td> <td>68.5</td> <td>74.5</td> <td>77.7</td> <td>84.1</td> <td>82.9</td> <td>77.6</td> <td>72.2</td> <td>34.8</td> <td>58.8</td>	219.5	179.9	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
215.7 165.1 168.0 38.0 80.0 00 00 HVMC HVMC 156.7 31.18 44.6 66.5 74.5 77.7 64.1 22.0 64.8 56.8 <t< td=""><td>218.1</td><td>174.0</td><td>286.9</td><td></td><td>88.0</td><td>88.0</td><td>0.0</td><td>D.0 HVAC</td><td>HVAC</td><td>15.67</td><td>31.18</td><td>44.6</td><td>68.5</td><td>74.5</td><td>77.7</td><td>84.1</td><td>82.9</td><td>77.6</td><td>72.2</td><td>34.8</td><td>58.8</td></t<>	218.1	174.0	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
213 162.1 368.0 880 00 00 HVAC HVAC 1557 311.8 44.6 68.5 74.5 777 84.1 22.9 77.6 72.2 64.8 56.8 212.6 143.1 286.9 800 00 00 HVAC 1557 31.18 44.6 68.5 74.5 777 84.1 22.9 77.6 72.2 64.8 58.8 226.6 143.1 286.9 800 00 00 HVAC 1557 31.18 44.6 68.5 74.5 777 84.1 22.9 77.6 72.2 64.8 58.8 2345 139.7 286.9 88.0 00 00 HVAC 1557 31.18 44.6 68.5 74.5 777 84.1 22.9 64.8 58.8 2345 134.7 84.1 68.5 74.5 777 84.1 22.9 74.8 58.8 234.6 137.1 84.1	216.7	168.0	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
2133 1651 2650 880 800 00 00 MMC 1567 3118 446 685 745 777 841 829 776 722 643 568 2166 1411 2266 1411 829 776 776 722 643 568 2266 1411 2269 880 880 00 00 MMC 1567 3118 446 685 745 777 841 829 776 722 643 568 2305 1380 880 00 00 MMC 1567 3118 446 685 745 777 841 829 776 722 643 568 2305 1301 1311 446 685 745 777 841 829 776 722 643 568 2304 1301 1318 446 685 745 777 841 829 776 <td< td=""><td>215.3</td><td>162.1</td><td>286.9</td><td></td><td>88.0</td><td>88.0</td><td>0.0</td><td>D.0 HVAC</td><td>HVAC</td><td>15.67</td><td>31.18</td><td>44.6</td><td>68.5</td><td>74.5</td><td>77.7</td><td>84.1</td><td>82.9</td><td>77.6</td><td>72.2</td><td>34.8</td><td>58.8</td></td<>	215.3	162.1	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
2126 1312 2869 880 00 00 HVAC 1567 3118 445 865 745 777 841 829 776 722 648 968 2256 1419 2669 880 00 01 HVAC 1567 3118 445 865 745 777 841 829 776 722 648 968 2265 1377 2665 3118 445 865 745 777 841 829 776 722 648 968 2265 1377 2665 3118 446 865 745 777 841 829 776 722 648 968 2264 1377 2661 3118 446 865 745 777 841 829 776 722 648 968 2264 1357 2669 860 00 01 1446 865 745 777 841	213.9	156.1	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
2166 1431 2869 880 00 00 HVAC 1567 3118 445 665 745 777 841 829 776 722 648 568 2366 1391 2869 880 00 01 HVAC 1567 3118 445 655 745 777 841 829 776 722 648 568 2365 1392 2869 880 00 01 HVAC 1567 3118 446 665 745 777 841 829 776 722 648 568 2324 1357 2869 880 00 01 HVAC 1446 685 745 777 841 829 776 722 648 568 2344 1337 2869 880 00 01 HVAC HVAC 146 665 745 777 841 829 776 722 648 568	212.6	150.2	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
2226 141 286.9 880 880 00 00 HMC HMC 156 311.8 446 665.5 74.5 77.7 64.1 82.9 77.6 72.2 64.8 58.8 244.5 138.1 286.9 880 00 00 HMC HMC 1567 311.8 44.6 685.5 7.4.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 244.5 137.7 286.4 143.5 286.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 225.4 133.5 286.2 88.0 00 00 HMC HMC 14.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 2264.1 133.1 84.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 224.1 133.1 84.16 685.7	216.6	143.1	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	34.8	58.8
228.6 140.7 286.0 88.0 88.0 0.0 0.0 HVAC 1567 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 234.5 137.7 286.9 88.0 80.0 0.0 0.0 HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 286.5 138.0 88.0 0.0 0.0 HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 286.4 133.2 286.2 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 274.1 14.16 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 <td< td=""><td>222.6</td><td>141.9</td><td>286.9</td><td></td><td>88.0</td><td>88.0</td><td>0.0</td><td>D.0 HVAC</td><td>HVAC</td><td>15.67</td><td>31.18</td><td>44.6</td><td>68.5</td><td>74.5</td><td>7.77</td><td>84.1</td><td>82.9</td><td>77.6</td><td>72.2</td><td>34.8</td><td>58.8</td></td<>	222.6	141.9	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	34.8	58.8
2345 1334 2669 880 00 00 HVAC 1567 3118 446 685 745 777 841 829 776 522 64.8 588 53	228.6	140.7	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
2405 1382 2869 880 00 00 HVAC 1567 3118 446 685 745 777 841 829 776 722 648 588 2554 1377 2869 880 00 00 HVAC 1567 3118 446 685 745 777 841 829 776 722 648 588 2554 1332 2861 880 00 00 HVAC 1557 3118 446 685 745 777 841 829 776 722 648 588 2731 1419 2867 880 00 00 HVAC 1567 3118 446 685 745 777 841 829 776 722 648 588 2731 1419 2867 880 00 00 HVAC 1567 3118 446 685 745 777 841 829 776	234.5	139.4	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	34.8	58.8
2465 1370 2869 880 880 00 00 HVAC 1567 3118 446 865 745 777 841 829 776 722 648 588 2554 1357 2865 880 00 00 HVAC HVAC 1567 3118 446 865 745 777 841 829 776 722 648 588 2544 1332 2862 880 00 00 HVAC HVAC 1567 3118 446 865 745 777 841 829 776 722 648 588 2716 1419 2850 880 800 00 0 HVAC HVAC 1567 3118 446 865 745 777 841 829 776 722 648 588 2716 1557 3118 446 865 745 777 841 829 776 764	240.5	138.2	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	7.77	84.1	82.9	77.6	72.2	34.8	58.8
252.4 135.7 286.9 88.0 80.0 0.0 HVMC H567 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 258.4 134.5 286.9 88.0 0.0 0.0 HVMC 1567 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 271.4 136.0 285.4 88.0 0.0 0.0 HVMC 1567 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 64.8 58.8 274.6 147.1 286.3 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 64.8 58.8 274.6 147.7 286.3 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 64.8 58.8 277.7 84.1 68.5 74.5 77.7 <t< td=""><td>246.5</td><td>137.0</td><td>286.9</td><td></td><td>88.0</td><td>88.0</td><td>0.0</td><td>D.0 HVAC</td><td>HVAC</td><td>15.67</td><td>31.18</td><td>44.6</td><td>68.5</td><td>74.5</td><td>77.77</td><td>84.1</td><td>82.9</td><td>77.6</td><td>72.2</td><td>34.8</td><td>58.8</td></t<>	246.5	137.0	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.77	84.1	82.9	77.6	72.2	34.8	58.8
Z584 134.5 286.0 88.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 264.4 133.2 286.1 88.0 0.0 0.0 HVAC HVAC 14.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 273.0 141.90 285.7 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 277.1 141.8 285.0 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 279.1 143.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 279.1 146.6 68.5 74.5 77.7 84.1 82.9 77.6 <td< td=""><td>252.4</td><td>135.7</td><td>286.9</td><td></td><td>88.0</td><td>88.0</td><td>0.0</td><td>D.0 HVAC</td><td>HVAC</td><td>15.67</td><td>31.18</td><td>44.6</td><td>68.5</td><td>74.5</td><td>77.7</td><td>84.1</td><td>82.9</td><td>77.6</td><td>72.2</td><td>34.8</td><td>58.8</td></td<>	252.4	135.7	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
2644 1332 286.2 88.0 80.0 0.0 1/M MC H/MC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 2713 141.9 285.7 88.0 0.0 0.1 H/MC H/MC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 2773 141.9 285.7 88.0 80.0 0.0 0.1 H/MC H/MC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 2774 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 2775 286.9 88.0 0.0 0.1 H/MC H/MC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 <td>258.4</td> <td>134.5</td> <td>286.9</td> <td></td> <td>88.0</td> <td>88.0</td> <td>0.0</td> <td>0.0 HVAC</td> <td>HVAC</td> <td>15.67</td> <td>31.18</td> <td>44.6</td> <td>68.5</td> <td>74.5</td> <td>77.7</td> <td>84.1</td> <td>82.9</td> <td>77.6</td> <td>72.2</td> <td>34.8</td> <td>58.8</td>	258.4	134.5	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
Z714 136.0 285.4 88.0 88.0 0.0 U/H H/H 1567 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 273.1 1141.9 285.7 88.0 0.0 U/H H/H 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 2774 141.3 286.9 88.0 0.0 U/H H/H 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 2774 165.5 286.9 88.0 0.0 U/H H/H 14.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8<	264.4	133.2	286.2		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
Z73.0 141.9 285.7 88.0 88.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 Z74.6 147.8 286.3 88.0 00 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 Z752 286.9 88.0 00 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 Z701 171.3 286.9 88.0 00 0.0 HVAC HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 281.0 177.1 286.9 88.0 00 0.0 HVAC HVAC 15.6	271.4	136.0	285.4		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
Z74.6 147.8 Z85.9 88.0 88.0 0.0 IVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 Z75.2 153.7 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 Z77.1 115.5 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 Z77.1 115.55 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 Z81.0 117.1 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 58.8	273.0	141.9	285.7		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
Z762 1537 286.3 88.0 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 Z774 1556 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 Z714 165.5 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 281.0 171.1 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 5	274.6	147.8	285.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
Z7778 159.6 286.0 88.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 2734 165.5 286.9 88.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 281.0 17.13 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 284.3 189.4 286.9 88.0 0.0 0.0 HVAC <	276.2	153.7	286.3		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
2734 165.5 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 281.0 171.13 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 288.1 170.1 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 284.3 189.4 286.9 88.0 0.0 0.0 HVAC HVAC 17.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 58.8 58.0 50.0 10.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1	277.8	159.6	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
281.0 171.3 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 282.6 177.2 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 284.1 183.1 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 284.3 189.4 286.9 88.0 0.0 0.0 HVAC HVAC 17.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 58.8 58.0 50.0 10.0 HVAC HVAC 14.46 68.5 74.5 77.7 84.1 82.9 77.6 <	279.4	165.5	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
282.6 177.2 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 284.2 183.1 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 284.3 190.8 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 272.4 192.2 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 272.4 192.2 286.9 88.0 0.0 10 10 17.6 7	281.0	171.3	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
284.2 183.1 286.9 88.0 80.0 0.0 10 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 284.3 189.4 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 278.3 190.8 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 272.4 192.2 286.9 88.0 0.0 0.0 HVAC HVAC 18.46 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 272.4 192.2 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 77.7 84.1 82.9 77.6 </td <td>282.6</td> <td>177.2</td> <td>286.9</td> <td></td> <td>88.0</td> <td>88.0</td> <td>0.0</td> <td>0.0 HVAC</td> <td>HVAC</td> <td>15.67</td> <td>31.18</td> <td>44.6</td> <td>68.5</td> <td>74.5</td> <td>77.7</td> <td>84.1</td> <td>82.9</td> <td>77.6</td> <td>72.2</td> <td>34.8</td> <td>58.8</td>	282.6	177.2	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
284.3 189.4 286.9 88.0 80.0 0.0 10/4VAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 278.3 190.8 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 272.4 192.2 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 266.5 193.6 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58	284.2	183.1	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
278.3 190.8 286.9 88.0 80.0 0.0 104VAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 272.4 192.2 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 266.5 193.6 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 266.5 193.6 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.8 58.	284.3	189.4	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
272.4 192.2 286.9 88.0 80.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 266.5 193.6 286.9 88.0 80.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 260.5 193.6 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 260.5 195.0 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 254.6 196.4 286.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 58.8 58.8 58.	278.3	190.8	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
266.5 193.6 286.9 88.0 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 260.5 195.0 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 260.5 195.0 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 254.6 196.4 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 58.8 254.6 196.4 286.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 88.8 58.8 58.8 58.8	272.4	192.2	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
260.5 195.0 286.9 88.0 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 254.6 196.4 286.9 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 254.6 196.4 286.9 88.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8 254.6 196.4 286.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8	266.5	193.6	286.9		88.0	88.0	0.0	D.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
254.6 196.4 286.9 88.0 88.0 0.0 0.0 HVAC HVAC 15.67 31.18 44.6 68.5 74.5 77.7 84.1 82.9 77.6 72.2 64.8 58.8	260.5	195.0	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
	254.6	196.4	286.9		88.0	88.0	0.0	0.0 HVAC	HVAC	15.67	31.18	44.6	68.5	74.5	77.7	84.1	82.9	77.6	72.2	34.8	58.8
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								Ē	rstCarbon S	olutio	ns										

SoundPLAN 7.4

a with Project Combined Onsite and Offsite Road Bit 101:1 311:2 501:1 125:1 250:1 500:1 14:1 24:1 84:1 84:1 84:1 84:1 84:1 164:1	, í
a with Project Combined Onsite and Offsite Road BH2 TeH2 TH2 EBH2 TBH2 EBH2 </td <td></td>	
a with Project Combined Onsite and Offsite R BH2 16H2 31H2 63H2 125H2 250H2 500H2 HH1 24H2 AH4 AH4 <td></td>	
a with Project Combined Onsite and Offsit akr ath ath ath ath akr ath ath ath ath ath akr ath ath ath ath ath ath akr ath ath ath ath ath ath ath akr ath a	
a with Project Combined Onsite and Of BHz BHz 16Hz 31Hz 63Hz 125Hz 250Hz 60Hz 1KHz 2KHz dB(A) dB(A) dB(A) dB(A) dB(A) dB(A) dB(A) dB(A) dB(A) 15.67 31.18 4.46 68.5 7.4.5 77.7 84.1 82.9 77.6 15.67 31.18 4.46 68.5 7.4.5 77.7 84.1 82.9 77.6 15.67 31.18 4.46 68.5 7.4.5 77.7 84.1 82.9 77.6 15.67 31.18 4.46 68.5 74.5 77.7 84.1 82.9 77.6 15.67 31.18 4.46 68.5 74.5 77.7 84.1 82.9 77.6 15.67 31.18 4.46 68.5 74.5 77.7 84.1 82.9 77.6 15.66 31.18 4.46 68.5 77.7 84.1 82.9 77.6 15.66 49.3 61.1 68.4 71.9 73.9 74.6 77.6	
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d with Project Combined Onsite 8Hz 16Hz 31Hz 63Hz 11Hz 50Hz 1k dB(A) dB(A) <td></td>	
BHz 16Hz 31Hz 63Hz 125Hz 50Hz 50Hz BHz 16Hz 31Hz 63Hz 125Hz 250Hz 50Hz BRA dB(A) dB(A) dB(A) dB(A) dB(A) dB(A) dB(A) 15.67 31.18 44.6 68.5 74.5 77.7 84. 15.67 31.18 44.6 68.5 74.5 77.7 84. 15.67 31.18 44.6 68.5 77.7 84. 15.67 31.18 44.6 68.5 77.7 84. 15.67 31.18 44.6 68.5 77.7 84. 15.67 31.18 44.6 68.5 77.7 84. 15.67 31.18 44.6 68.5 77.7 84. 15.67 27.06 49.3 61.1 68.4 71.9 73.	
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Oakmont of Agoura Hills Source level parking lots - Mitigated With Project Combined Onsite and Offsite Road Noise

14

Parking lot	PPT	KPA	KI	KD	TL	KStrO	Unit B0	Size B	f	
Parking	Visitors and staff	0.00	4.00	4.01	1	0.00	1 parking	49.00	1.00)
Parking	Visitors and staff	0.00	4.00	4.01	1	0.00	1 parking	49.00	1.00	
				FirstCarbor	n Solutio	ns				1

Conorar Information	
Serial Number	02509
Model	831
Firmware Version	2.112
Filename	831 Data.005
User	
Job Description	Northwest Fresno Walmart Relocation
Location	Rooftop HVAC Unit
Measurement Description	
Start Time	Saturday, 2013 July 27 18:31:43
Stop Time	Saturday, 2013 July 27 18:41:44
Duration	00:10:01.1
Run Time	00:10:01.1
Pause	00:00:00.0
Pre Calibration	Saturday, 2013 July 27 17:53:07
Post Calibration	None
Calibration Deviation	
Nata.	

Located 10 feet southeast of rooftop HVAC Unit 14 located on western side of roof 94 F, 30% Hu., 29.45 in Hg, no wind, partly cloudy

Overall Data LAeq LASmax LApeak (max) LASmin LCeq LAeq LAeq LAeq LAeq LAIeq - LAeq LAIeq LAIeq - LAeq LAIeq - LAeq LAieq - LAeq LAight 23:00- Lden LDay 07:00-15 LEvening 19:0 LAE # Overloads Overload Dura # OBA Overload	3:00 -07:00 9:00 00-23:00 -07:00 ation ads Duration						2013 Jul 2013 Jul 2013 Jul	27 18:33 27 18:32 27 18:41	9:16 2:17 :08		66.6 67.6 81.6 65.8 75.8 66.6 9.2 67.2 66.6 66.6 66.6 66.6 66.6 66.6 94.4 0 0.0 0.0	dB dB dB dB dB dB dB dB dB dB dB dB dB d
Statistics LAS5.00 LAS10.00 LAS33.30 LAS50.00 LAS66.60 LAS90.00 LAS > 65.0 dH LAS > 85.0 dH LAPeak > 135. LAPeak > 137. LAPeak > 140.	3 (Exceed 3 (Exceed 0 dB (Ex 0 dB (Ex 0 dB (Ex	ence Coun ence Coun ceedence ceedence ceedence	ts / Durat ts / Durat Counts / I Counts / I Counts / I	tion) tion) Duration) Duration) Duration)						1 / 0 / 0 / 0 / 0 /	67.0 66.9 66.7 66.6 66.5 66.3 601.1 0.0 0.0 0.0 0.0	dBA dBA dBA dBA dBA dBA s s s s s s s s s
Settings RMS Weight Peak Weight Detector Preamp Integration M OBA Range OBA Bandwidth OBA Freq. Wei OBA Max Spect Gain Under Range I Under Range I Noise Floor Overload	Method 1 Ighting 2rum 2.imit 2eak									A Wei A Wei 1/1 a Z Wei E	ghting ghting Slow PRM831 Linear Normal nd 1/3 ghting in Max +0 26.2 75.8 17.1 143.4	dB dB dB dB dB dB
1/1 Spectra Freq. (Hz): LZeq LZSmax LZSmin	8.0 70.9 83.8 53.2	16.0 64.4 78.9 56.5	31.5 61.4 70.0 56.7	63.0 74.2 78.4 67.7	125 68.2 72.3 66.1	250 64.9 66.1 63.5	500 66.3 67.8 65.0	1k 61.7 63.1 60.7	2k 55.1 56.9 53.9	4k 49.9 53.2 48.4	8k 44.3 46.7 43.2	16k 44.0 45.4 43.7

1/3 Spectra												
Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	68.1	65.7	63.2	61.0	58.0	59.3	56.0	57.8	55.8	69.7	72.0	59.3
LZSmax	82.3	79.5	78.7	77.2	72.8	72.3	67.9	63.5	64.0	74.2	76.1	72.0
LZSmin	41.9	46.3	48.8	48.7	46.5	49.7	50.1	51.8	41.2	63.9	67.9	54.5
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	61.6	63.7	64.5	59.0	58.7	60.9	63.2	60.8	59.9	59.2	56.1	54.6
LZSmax	71.3	68.0	67.3	61.6	61.7	64.1	65.5	64.2	62.0	60.7	57.6	58.6
LZSmin	52.9	60.0	57.2	45.1	56.0	58.9	61.1	58.4	58.4	57.1	54.9	53.3
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4 k	5k	6.3k	8 k	10k	12.5k	16k	20k
LZeq	52.0	49.8	48.4	46.4	45.4	42.8	41.1	38.6	38.5	38.4	39.0	40.2
LZSmax	54.4	52.3	51.2	50.2	49.7	45.7	45.4	41.6	40.4	40.4	41.4	41.3
LZSmin	50.9	48.4	46.9	45.0	43.7	41.4	39.6	37.5	37.9	38.0	38.7	39.9

Calibration history		
Preamp	Date	dB re. 1V/Pa
PRM831	27 Jul 2013 17:53:07	-25.9
PRM831	27 Jul 2013 13:36:08	-25.6
PRM831	28 Apr 2013 15:34:24	-25.9
PRM831	23 Apr 2013 10:17:33	-25.0
PRM831	27 Feb 2013 19:15:30	-25.7
PRM831	24 Jan 2013 12:00:16	-25.6
PRM831	15 Jan 2013 07:50:44	-26.2
PRM831	04 Jan 2013 13:47:46	-26.5

File Model Firmw	Trans l/Seri ware/S	slated: Lal Numb Software	ber: e Revs	V: 82 4.	\Vista E 4 / A317 283 / 3.	nv\20 6 120	10\1002	2-Fresno	o Walma	rt\Nois@	e Measu	rements	\LD\15.	slmdl
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Note1 Note2	1: 2:			50 Ap 52	prox 70' F, 29.57	S of in H	Locust g, 67%	Ave CL Humid.,	no win	d, clea:	r sky	art		
Overa Start Elaps	all Ar t Time sed Ti	ny Data e: ime:	(19-May 00:08:	-2011 07 30.5	:05:53	3							
Leq: SEL: Peak:	: 10-M-	2011	A Weig 54.8 d 81.9 d 85.2 d	ght JBA JBA JBA	10-Most	-2011	C Weigh 65.1 dH 92.2 dH 85.8 dH	nt 3C 3C 3C 3C	Q_M211-	66. 93. 86.	Flat 1 dBF 2 dBF 0 dBF			
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Lmax Lmin	(slow 19-Ma (slow 19-Ma	v): ay-2011 v): av-2011	67.9 c 07:09 43.7 c 07:11	dBA :50 dBA :17	19-May 19-May	-2011	73.2 df 07:13:5 60.0 df 07:06:5	3C 57 1 3C 52 1	9-May-2	73. 2011 07: 61. 2011 07:	.8 dBF :13:57 .6 dBF :06:51			
Imax	(fast	.):	70.7				75.5 di	 3C		75.	.7 dBF			
Lmin	19-Ma (fast 19-Ma	ay-2011 : ay-2011	07:09 43.1 07:11	:58 dBA :17	19-May 19-May	-2011 -2011	07:11:3 57.8 dH 07:09:1	34 1 3C 10 1	9-May-2	2011 07: 58. 2011 07:	:11:34 .9 dBF :09:10			
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10 20 25	6.0 0.0 5.0	50.9 51.0 55.8	55.5	56.1 57.6 57.5	61.5	37.1 38.0 41.1	1 41.8) 1	8 800 1000 1250	45.4 44.5 43.5	49.3	60.8 56.1 59.4	63.9	30.5 31.7 30.2	35.6
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2	250 315 400	51.4 48.2 47.0	55.2	70.6 58.2 59.0	71.0	34.0 32.0 30.1	6 39.0) 1	12500 16000 20000	22.9 20.8 21.2	26.5	32.2 27.4 23.8	33.9	19.4 19.1 20.3	24.4
	500	47.0	51.6	64.3	66.9	30.4	4 35.3	3						
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File Translated: V:\Vista Env\2010\10022-Fresno Walmart\Noise Measurements\LD\15.slmdl Model/Serial Number: 824 / A3176

Current Any Data Start Time: Elapsed Time:	19-May-2 00:08:30	2011 07:05:53 0.5	3	
Leq: SEL: Peak: 19-May-2011	A Weight 54.8 dBA 81.9 dBA 85.2 dBA 07:09:58	19-May-2011	C Weight 65.1 dBC 92.2 dBC 85.8 dBC 07:09:52	Flat 66.1 dBF 93.2 dBF 86.0 dBF 19-May-2011 07:09:52
Lmax (slow): 19-May-2011 Lmin (slow): 19-May-2011	67.9 dBA 07:09:50 43.7 dBA 07:11:17	19-May-2011 19-May-2011	73.2 dBC 07:13:57 60.0 dBC 07:06:52	73.8 dBF 19-May-2011 07:13:57 61.6 dBF 19-May-2011 07:06:51
Lmax (fast): 19-May-2011 Lmin (fast): 19-May-2011	70.7 dBA 07:09:58 43.1 dBA 07:11:17	19-May-2011 19-May-2011	75.5 dBC 07:11:34 57.8 dBC 07:09:10	75.7 dBF 19-May-2011 07:11:34 58.9 dBF 19-May-2011 07:09:10
Lmax (impulse): 19-May-2011 Lmin (impulse): 19-May-2011	72.1 dBA 07:09:58 43.6 dBA 07:11:17	19-May-2011 19-May-2011	76.8 dBC 07:11:34 61.1 dBC 07:06:51	77.1 dBF 19-May-2011 07:11:34 62.4 dBF 19-May-2011 07:09:10
Calibrated: Checked: Calibrator Cal Records Count	18-May-2 19-May-2 not set 0	2011 13:09:02 2011 06:46:08	2	Offset: -48.2 dB Level: 113.9 dB Level: 114.0 dB
Interval Records History Records: Run/Stop Records	Disabled Disabled	d d		Number Interval Records: Number History Records: Number Run/Stop Records:

0 0 2



STANDBY 795 kW PRIME 725 kW **POWER MODULE** 50 Hz 1500 rpm 60 Hz 1800 rpm

Frequency	Voltage	Standby kW (kVA)	Prime kW (kVA)
60 Hz	480/277V	795 (994)	725 (906)
60 Hz	240/139V	795 (994)	725 (906)
60 Hz	208/120V	795 (994)	725 (906)
60 Hz	600V	795 (994)	725 (906)
50 Hz	400V	660 (825)	600 (750)

FEATURES

FUEL/EMISSIONS STRATEGY

EPA Tier 4 Interim

DESIGN CRITERIA

- Accepts 100% rated load in one step per NFPA 110 and meets ISO 8528-5 transient response
- **CSA** Approved

SINGLE-SOURCE SUPPLIER

- Factory designed and fully prototype tested with certified torsional vibration analysis available
- . ISO 9001:2000 compliant facility

WORLDWIDE PRODUCT SUPPORT

- Cat[®] dealers provide extensive post sale support including maintenance and repair agreements
- Cat dealers have over 1600 dealer branch
- stores operating in 200 countries The Cat S•O•SSM program effectively detects internal engine component condition, even the presence of unwanted fluids and combustion byproducts

CAT C27 ATAAC DIESEL ENGINE

- Utilizes ACERT™ Technology
- Reliable, rugged, durable design
- Four-stroke diesel engine combines consistent performance and excellent fuel economy with minimum weight
- Electronic engine control

CAT GENERATOR

- Matched to the performance and output characteristics of Cat engines
- Single point access to accessory connections
- UL 1446 Recognized Class H insulation

CAT EMCP 4.4 CONTROL PANEL

- Simple user friendly interface and navigation
- Integrated, automatic genset paralleling facilitates multi-unit systems meeting a wide range of customer applications
- Integrated Control System and Communications Gateway

CAT DIGITAL VOLTAGE REGULATOR (CAT DVR)

- Three-phase sensing
- Adjustable volts-per-hertz regulation
- Provides precise control, excellent block loading, and constant voltage in the normal operating range

SOUND ATTENUATED CONTAINER

- Provides ease of transportation and protection
- Meets 74 dB(A) at 7 meters per SAE J1074 measurement procedure at 110% prime load

ENVIRONMENTALLY FRIENDLY

110% spill containment of onboard engine fluids

Roadway Construction Noise Model (RCNM), Version 1.1

Report date 7/5/2017 Case Descr Site Preparation and Grading Phase

---- Receptor #1 ----

Baselines (dBA) Descriptior Land Use Daytime Evening Night

R1 - comm Commercia 59.6 59.6 56.1

			Equipn	nent				
			Spec		Actua	I	Receptor	Estimated
	Impact		Lmax		Lmax		Distance	Shielding
Description	Device	Usage(%)	(dBA)		(dBA)		(feet)	(dBA)
Dozer	No	40				81.7	40	0
Tractor	No	40		84			40	0
Front End Loader	No	40				79.1	60	0
Backhoe	No	40		80			60	0
Excavator	No	40				80.7	80	0
Grader	No	40		85			80	0
Dozer	No	40				81.7	180	0
Tractor	No	40		84			180	0
Front End Loader	No	40				79.1	280	0
Backhoe	No	40				77.6	280	0

		Results											
	Calculated (d	BA)	Noise L	imits (dBA)					Noise L	Noise Limit Exceedance (dBA)			
		Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax Le	eq Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	83.6	79.6 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	85.9	82 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	77.5	73.5 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	78.4	74.4 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	76.6	72.6 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	80.9	76.9 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	70.5	66.6 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	72.9	68.9 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	64.1	60.2 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	62.6	58.6 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85.9	85.8 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

---- Receptor #2 ----

Baselines (dBA) Descriptior Land Use Daytime Evening Night R2 - residei Residential 59.6 59.6 56.1

			Equipn	nent				
			Spec		Actua	I	Receptor	Estimated
	Impact		Lmax		Lmax		Distance	Shielding
Description	Device	Usage(%)	(dBA)		(dBA)		(feet)	(dBA)
Dozer	No	40				81.7	315	6
Tractor	No	40		84			315	6
Front End Loader	No	40				79.1	415	6
Backhoe	No	40		80			415	6
Excavator	No	40				80.7	515	6
Grader	No	40		85			515	6
Dozer	No	40				81.7	615	6
Tractor	No	40		84			615	6
Front End Loader	No	40				79.1	715	6
Backhoe	No	40				77.6	715	6

		Results											
	Calculated (dB	A)	Noise L	imits (dBA)					Noise L	Noise Limit Exceedance (dBA)			
		Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax Leo	q Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	59.7	55.7 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	62	58 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	54.7	50.7 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	55.6	51.6 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	54.5	50.5 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	58.7	54.8 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dozer	53.9	49.9 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	56.2	52.2 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	50	46 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	48.5	44.5 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Total	62	63 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	*Calculated Lm	hax is the Loude	st value.										

---- Receptor #3 ----Baselines (dBA) 2 Daytime Francisco Descriptior Land Use Daytime Evening Night R3 - resdiei Residential 59.6 59.6 56.1

			Equipm	nent					
			Spec		Actua	I	Receptor	Estimated	d
	Impact		Lmax		Lmax		Distance	Shielding	
Description	Device	Usage(%)	(dBA)		(dBA)		(feet)	(dBA)	
Dozer	No	40				81.7	405		6
Tractor	No	40		84			405		6
Front End Loader	No	40				79.1	505		6
Backhoe	No	40		80			505		6
Excavator	No	40				80.7	605		6
Grader	No	40		85			605		6
Dozer	No	40				81.7	705		6
Tractor	No	40		84			705		6
Front End Loader	No	40				79.1	705		6
Backhoe	No	40				77.6	705		6

			Results												
	Calculated	(dBA)		Noise L	imits (dBA)					Noise L	Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night		
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	
Dozer	57.5	5	3.5 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Tractor	59.8	5	5.9 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Front End Loader	53		49 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Backhoe	53.9	4	9.9 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Excavator	53.1	4	9.1 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Grader	57.3	5	3.4 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Dozer	52.7	4	8.7 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Tractor	55		51 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Front End Loader	50.1	4	6.1 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Backhoe	48.6	4	4.6 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total	59.8	6	51.3 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	*Calculate	d Lmax i	s the Loude	st value.											

Roadway Construction Noise Model (RCNM), Version 1.1

Report dat 7/5/2017 Case Descr Building Construction Phase

	Receptor	#1	
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			Nece	
	Baselines	(dBA)		
Descriptior Land Use	Daytime	Evening	Night	

R1 - comm Commercia 59.6 59.6 56.1

			Equipn	nent	t			
			Spec		Actual	I	Receptor	Estimated
	Impact		Lmax		Lmax		Distance	Shielding
Description	Device	Usage(%)	(dBA)		(dBA)		(feet)	(dBA)
Crane	No	16				80.6	170	0
Tractor	No	40		84			170	0
Generator	No	50				80.6	270	0
Man Lift	No	20				74.7	270	0
Front End Loader	No	40				79.1	370	0
Backhoe	No	40				77.6	370	0
Welder / Torch	No	40				74	370	0

			Results												
	Calculated	(dBA))	Noise L	imits (dBA)					Noise L	Noise Limit Exceedance (dBA)				
			Day		Evening		Night		Day		Evening		Night		
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	
Crane	69.9		62 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Tractor	73.4		69.4 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Generator	66		63 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Man Lift	60.1		53.1 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Front End Loader	61.7		57.7 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Backhoe	60.2		56.2 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Welder / Torch	56.6		52.6 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Total	73.4		71.3 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	*Calculate	d Lma	x is the Loudes	t value.											

	Receptor #2
Pacolines (dPA)	

 Baselines (dBA)

 Descriptior Land Use
 Daytime
 Evening
 Night

 R2 - resider Residential
 59.6
 59.6
 56.1

			Equipn	nent			
			Spec		Actual	Receptor	Estimated
	Impact		Lmax		Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)		(dBA)	(feet)	(dBA)
Crane	No	16			80.6	350	6
Tractor	No	40		84		350	6
Generator	No	50			80.6	450	6
Man Lift	No	20			74.7	450	6
Front End Loader	No	40			79.1	550	6
Backhoe	No	40			77.6	550	6
Welder / Torch	No	40			74	550	6

			Results											
	Calculated	d (dBA))	Noise L	imits (dBA)			Noise Limit Exceedance (dBA)						
			Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	57.6	6	49.7 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	61.3	1	57.1 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	55.5	5	52.5 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	49.6	6	42.6 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	52.3	3	48.3 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	50.7	7	46.8 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	47.2	2	43.2 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	61.3	1	59.7 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	*Calculate	ed Lma	x is the Loudes	t value.										

---- Receptor #3 -----

			Recept
	Baselines (dBA)	
Descriptior Land Use	Daytime	Evening	Night
R3 - reside: Residential	59.6	59.6	56.1

			Equipment				
			Spec	Actual	Receptor	Estimated	
	Impact		Lmax	Lmax	Distance	Shielding	
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)	

Crane	No	16		80.6	440	6
Tractor	No	40	84		440	6
Generator	No	50		80.6	540	6
Man Lift	No	20		74.7	540	6
Front End Loader	No	40		79.1	640	6
Backhoe	No	40		77.6	640	6
Welder / Torch	No	40		74	540	6
		Results	5			
	Calculated (dBA)		Noise	e Limits (dB	SA)	
		Day		Even	ning	Ni
Equipment	*Lmax Leq	Lmax	Leq	Lma	x Leq	Ln
Crane	55.7	47.7 N/A	N/A	N/A	N/A	N/

		Results											
	Calculated (dB	A)	Noise L	imits (dBA)					Noise L	imit Exceeda	ance (dBA)		
		Day		Evening		Night		Day		Evening		Night	
Equipment	*Lmax Leo	q Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Crane	55.7	47.7 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	59.1	55.1 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Generator	54	51 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Man Lift	48	41 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	51	47 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	49.4	45.4 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Welder / Torch	47.3	43.4 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	59.1	58 N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*Calculated Lmax is the Loudest value.

Emergency Vehicle Siren

Receptor	r: Closest residential property line	Noise Level Calculation Prior to Implementation of Noise Attenuation Requirements								
		Reference (dBA)								
		50 ft		Usage	Distance to	Ground	Shielding	Calcul	lated (dBA)	
No.	Equipment Description	Lmax	Quantity	factor*	Receptor	Effect	(dBA)	Lmax	Leq	Energy
1	Emergency Vehicle Siren	98	1	1.7	650	0.5	5	70.7	47.5	55666.06734
2	Emergency Vehicle Siren	98	1	1.7	650	0.5	5	70.7	47.5	55666.06734
3	Emergency Vehicle Siren	98	1	1.7	650	0.5	5	70.7	47.5	55666.06734
4										
5										
6										
7										
8										
9										
10										
Notes:	-	-							Leq	52

* Percentage of time during an hour that the maximum siren sound would occur.

Assumptions:

Maximum siren noise levels would occur for up to one minute on the project site.
 Ground effect accounts for soft-surface of grass hillside.

3) Shielding accounts for minimum shielding that the proposed building and existing terrain woud provide.

Trip Generation and Parking Letter

CRANE TRANSPORTATION GROUP

Central Valley Office: 2621 E. Windrim Court Elk Grove, CA 95758 (916) 647-3406 *phone* (916) 647-3408 *fax* San Francisco Bay Area Office: 6220 Bay View Avenue San Pablo, CA 94806 (510) 236-9375 phone (510) 236-1091 fax

June 24, 2016

Mr. Wayne Sant Vice President, Development Oakmont Senior Living 9240 Old Redwood Hwy #200 Windsor, CA 95492

RE: TRIP GENERATION AND PARKING -- PROPOSED OAKMONT ASSISTED LIVING FACILITY – AGOURA HILLS, CALIFORNIA

Dear Mr. Sant:

At your request, Crane Transportation Group has prepared this letter to address weekday vehicle trip generation and parking demand for Oakmont's proposed 72-unit (87 bed count) assisted living facility. The facility is proposed to be located on a 6.05-acre site fronting on Canwood Street, which runs along the north side of the U.S. 101 freeway. The address is 29353 Canwood Street, Agoura Hills, California. The site is currently undeveloped. The Oakmont Assisted Living Facility would construct a new facility to serve individuals in need of living assistance, and/or memory care. The issues specifically addressed in this letter is as follows:

Trip Generation: The proposed assisted care facility would accommodate 72 units and 87 beds; a very few residents may drive. Projected trips are shown for daily and weekday peak hour conditions, based on Institute of Transportation Engineers (ITE) rates.

Parking Demand: Parking demand anticipated for the proposed assisted care facility is detailed by the employee shift schedule and anticipated visitor parking. Parking demand is also addressed in the context of surveys conducted for Oakmont's existing Cardinal Point I and II assisted living facilities in July 2013, and the City of Oxnard parking code.

I. SETTING

The project site will be accessed via a driveway intersection with Canwood Street. Neighboring land use north of the site is vacant land and a single family residential neighborhood; east of the site is a vacant 8-acre parcel; south of the site is Canwood Street and the U.S. 101 freeway, and west of the site is a medical office building.

II. SITE PLAN

Automobile access would be via two-way driveway connection to Canwood Street. The two-way drive would provide access to parking throughout the site, including front door drop-off/pick-up and two surface-level handicapped parking spaces convenient to the building's front door. Fifty-four (54) at-grade automobile parking spaces – including Oakmont's shuttle van space - would be provided on the site. Six of the 54 parking spaces would be in garages and 6 would be in carports. On-site circulation is shown on the site plan.

III. TRIP GENERATION

Trip rates utilized in this evaluation are from the traffic engineering profession's standard source of trip rate data: *Trip Generation – An ITE Informational Report*, 9th Edition, by the Institute of Transportation Engineers, 2012. Although occupancy is typically closer to 95 percent than 100 percent, the higher percentage is used in this evaluation to present a conservative analysis. Table 1 shows projected trip generation.

As shown in **Table 1**, the proposed 72-unit, 87-bed facility would be expected to generate 238 daily two-way trips (119 inbound and 119 outbound), with 11 inbound and 5 outbound trips during the ambient commute AM peak hour, and 13 inbound and 12 outbound trips during the ambient commute PM peak hour. This type of land use typically results in very low levels of trip generation.

		DAILY		AM PEAK HOUR VOLUMES				PM PEAK HOUR VOLUMES			
		2-WAY	TRIPS	IN		OU	T	IN		OU	J T
USE	# BEDS	RATE	VOL	RATE	VOL	RATE	VOL	RATE	VOL	RATE	VOL
Assisted Living Facility	87 beds	2.74	238	.12	11	.06	5	.15	13	.14	12

Table 1 TRIP GENERATION

Trip Rate Source: *Trip Generation*, 9th Edition, by the Institute of Transportation Engineers 2012, rate per occupied bed – assumes 100 % occupancy. Compiled by: Crane Transportation Group

III. PARKING DEMAND

The facility would provide assisted living services that are personalized to the individual needs of those who require help with all activities of daily living, such as bathing, dressing, eating, toileting, mobility, and medication management. In assisted living, residents receive three meals a day, housekeeping services, and weekly laundry of linens and personal clothing. Specialized recreational and social programs would be provided. Twenty-six (26) of the 72 units would serve up to 33 memory care residents requiring 24-hour assistance.

A typical assisted living resident needs help with at least three or more activities of daily living, and residents who are living in memory care need help with all activities. Also, in a dedicated assisted living and memory care building the social, recreational and dining programs are structured to meet the resident's needs, as residents are less mobile and must make use of more adaptive devices. Oakmont's staff is licensed in a wide range of care-giving, and requires few specialty caregivers over and above the Oakmont staff.¹

Oakmont staff would comprise the primary daily parking demand. **Table 2** provides the details of staffing per shift, while **Table 3** provides a *sampling* of three weekday time periods when parking demand would likely be greatest.

Note: the morning and afternoon non-administrative staff shift changes *will not* coincide with the weekday ambient AM and PM commute peak traffic hours. Shift changes at Oakmont facilities have been observed to occur gradually, with employees arriving and departing over a ¹/₂ hour period, rather than in a highly concentrated peak.

Basis of Parking Supply and Demand

The facility will be in operation on a 24-hour basis, seven days per week. Many residents would require high levels of care, with some requiring memory care assistance. Few of the residents would drive; very few would be expected to require a parking space for car storage. The non-administrative staff shift schedule would be 6:00 AM - 2:00 PM (morning shift), 2:00 PM - 10:00 PM (afternoon shift) and 10:00 PM - 6:00 AM (night shift). Non-administrative staff would total 17 for the morning shift, 16 for the afternoon shift, and 5 for the night shift. Eleven (11) administrative staff would follow an 8:00 AM - 5:00 PM schedule. Not all staff would be expected to drive to work – some may use transit, and others may combine public transit and walking or bicycle riding.

It is expected that many would be dropped off at work (this was observed at Cardinal Point I), and others would rideshare to and from work. July 2013 surveys of Oakmont's Cardinal Point I facility revealed that 33 percent of morning shift staff used alternative modes of travel to and from work.

The facility would provide car service for its residents, and at any given time, a vehicle would be parked on-site, with a driver on call, as needed. Oakmont will provide a 20+ passenger bus for large group trips and a smaller vehicle for local trips.

Services Provided

- Dining 3 daily meals, plus beverages and snacks
- Housekeeping, laundry linens
- Chauffeured transportation
- 24-hour emergency response
- Wellness and personal care, medication management

¹ Wayne Sant, Vice-President Development, Oakmont Senior Living, personal communication with Crane Transportation Group, November 4, 2015.



- Utilities included
- Exercise programs
- Musical performances, lectures
- Full social activity calendar
- Religious services

Deliveries and Visitors

- Daily deliveries produce, bread, milk
- Weekly or monthly deliveries staples, paper goods, nursing supplies, office supplies, cleaning supplies
- Deliveries are spread throughout the day, from 8:00 AM to 5:00 PM.
- There would be no restrictions on visiting hours; visitors arrive and depart throughout the day. Although most medical and therapeutic services would be available through the Oakmont staff, a few residents would have in-house visits from aids or therapists, and these would generally occur between 10:00 AM and 2:00 PM. Weekday and weekend visits would occur at anytime, with few predictable patterns.

TABLE 2

Oakmont Senior Living o	f Agoura Hills			
Budgeted Staffing & Shift R	Requirements			
Oct-15				
	Units	Residents		
Asst. Living	46	54		
Alzheimer's	<u>26</u>	<u>33</u>		
	72	87		
	AM Shift	Day Shift	PM Shift	Night Shift
	<u>6am-2:00pm</u>	<u>8am-5pm</u>	2pm-10:00pm	<u>10pm-6:00am</u>
Staffing-FTE's				
Executive Director		1		
Marketing Director		1		
Marketing Associate		1		
Activity Director		1		
Activity Assistant		1		
Health Services Director		1		
Business Office Manager		1		
Concierge		1		
Culinary Director		1		
Cook	2		2	
Kitchen Staff	2		1	
Meal Servers	1		3	
Housekeeping	2		1	
Maintenance Director	1			
Maintenance Assistant			1	
AL Caregivers	4		3	3
Bus Driver		1		
Traditions Director		1		
Traditions Caregivers	5		5	2
	17	11	16	5
Total FTE's	49			
Total Employees	60			

Source: Oakmont Senior Living, October 2015

TABLE 3TYPICAL DAY MAXIMUM WEEKDAY PARKING DEMANDDURING THREE SAMPLE TIME PERIODS

STAFF	7:30-8:30 AM	2:30-3:30 PM	5:30-6:30 PM
Administrative	11	11	0
Morning Shift *	14*	0	0
(6 AM - 2 PM}	۱		
Afternoon Shift *	0	13*	13*
(2 PM – 10 PM)	۱		
Visitors (including	5	5	7
visiting health	ļ		
professionals)	ļ		
Oakmont Service Car	1	1	1
(on-call service for all	ļ		
residents)			
TOTAL	31	30	21

* Based upon surveys conducted by Crane Transportation Group in July 2013 for the Cardinal Point I and II Senior and Assisted Living facilities in Alameda, California, 33 percent of employees used modes of travel to work other than a single-occupant vehicle. The modes observed included walking, bicycle, public transit, rideshare and dropoff. To present a conservative analysis, the morning and afternoon shifts are reduced in this table by only 20 percent.

Compiled by: Crane Transportation Group, January, 2016

IV. PARKING REQUIREMENT

The project would be expected to have sufficient parking with its proposed 54 on-site parking spaces, and would not depend upon any off-site, on-street parking spaces.

The City of Agoura Hills requires 1 parking space per every 5 beds.² For a 87 bed facility the City would require 18 automobile parking spaces.

For informational purposes, a sampling of parking requirements for residential care facilities and similar land uses for a number of other California cities are provided in **Table 4**.

² City of Agoura Hills Parking Standards for Institutional, Convalescent Hospitals, Nursing Homes, and Homes for the Aged, Article IX - Zoning Chapter 6 - Regulatory Provisions Part 2. Special Regulations.

TABLE 4 A SAMPLING OF ASSISTED CARE PARKING REQUIREMENTS IN CALIFORNIA CITIES/COUNTIES*

Jurisdiction	Facility Type	Parking Requirements**
City of Alameda	Residential Care Facility	0.34 spaces per bed
	With 87 beds:	30 spaces required
City of Corte Madera	Convalescent hospital or rest home	0.33 spaces per bed
	With 87 beds:	29 spaces required
City of Danville	Convalescent Home, Rest Home, Nursing Home,	0.33 spaces per bed
	With 87 beds:	29 spaces required
City of Novato	Residential Care	0.33 spaces per bed
	With 87 beds:	29 spaces required
City of San Francisco	Group Housing (of any kind)	0.33 spaces per bed + 1 space for manager
	With 87 beds:	30 spaces required
City of Concord	Residential Care Facility	0.41 spaces per bed*
	With 87 beds:	36 spaces required
County of San Bernardino	Residential Care Facility	0.41 spaces per bed*
	With 87 beds:	36 spaces required
City of Carmichael	Residential Care Facility	0.34 spaces per bed*
	With 87 beds:	30 spaces required
City of Thousand Oaks	Residential Care Facility	0.29 spaces per bed*
	With 87 beds:	25 spaces required

Tabl	e 4.	cont'	d
1 401	• •,	cont	u

City of Pleasant Hill	Residential Care Facility	0.37 spaces per bed*		
	With 87 beds:	32 spaces required		
City of Moraga	Residential Care Facility	0.33 spaces per bed*		
	With 87 beds:	29 spaces required		
City of Petaluma	Residential Care Facility	0.39 spaces per bed*		
	With 87 beds:	34 spaces required		

*Calculated based upon actual Use Permit approvals.

** Rounded up or down to the nearest 1.0.

As can be seen from the above data, the proposed 54 automobile parking spaces would exceed the number of spaces required by the cities listed above for various types of assisted care facilities.

According to the study *Assisted Living Residences: A Study of Traffic and Parking Implications*, prepared by the American Seniors Housing Association, parking demand is low to moderate compared to other housing types. The study cites a parking demand for assisted living facilities as low as 0.22 per unit (the equivalent of 19 spaces for a 103-bed facility – see **Table 5**). The reason cited for this comparatively low parking requirement is: residents generally do not drive, and visitors typically arrive and depart during all hours of the day rather than concentrating during a specific period of the day.

Table 5 Assisted Living Residences: A Study of Traffic and Parking Implications by the American Seniors Housing Association

American Seniors Housing Association	Residential Care Facility	0.22 spaces per bed*
	With 87 beds:	19 spaces required

*Calculated based upon rates provided in Assisted Living Residences: A Study of Traffic and Parking Implications by the American Seniors Housing Association

V. CONCLUSIONS

The proposed project would not result in a significant impact on the roadway network serving the site, would exceed City code parking requirements, and would provide more than sufficient parking for typical day activities.

We hope this information is responsive to your needs. Please call if questions arise.

Sincerely,

Carolyn Cole, AICP Principal

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City Tribal Consultation Letters





"Gateway to the Santa Monica Mountains National Recreation Area"

June 5, 2017

Kimia Fatehi Tribal Historic and Cultural Preservation Officer Fernandeno Tataviam Band of Mission Indians 1019 2nd Street San Fernando CA 91340

SUBJECT: AB 52 CONSULTATION WITH NATIVE AMERICAN TRIBES

Dear Ms. Fatehi:

We are writing to you pursuant to AB 52's requirement for consultation with Native American tribes. Please let us know within 30 days of the receipt of this letter if you wish to initiate consultation pursuant to AB 52 and California Public Resource Code Section 21080.3.1(a) and 65352.4 regarding the following project. If so, please let us know if you would be your tribe's lead contact person, or provide the name and contact information for another lead tribal representative with whom we can coordinate.

Oakmont of Agoura Hills

- 71,020 square feet of senior assisted living and memory care facility on 5.7 acres.
- 29353 Canwood Street, Agoura Hills (APN 2053-001-005)
- 25,100 cubic yards of grading with no net import or export of soil
- Hillside lot of about 16 percent slope
- Steeper hillside portion of lot to remain ungraded and as open space
- All oak trees to be preserved

The City of Agoura Hills has determined that an Initial Study/Mitigated Negative Declaration (IS/MND) is the appropriate document to be prepared for the project, pursuant to the California Environmental Quality Act (CEQA). Attached is a written project description, site plan, and plan cover sheet.

If you have any questions, or need further information, please let me know. I can be reached at (818) 597-7310 or at acook@ci.agoura-hills.ca.us. Thank you.

Sincerely,

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Allison Cook, AICP Assistant Planning Director

Attachments



"Gateway to the Santa Monica Mountains National Recreation Area"

June 5, 2017

Anthony Morales, Chief San Gabrieleno Band of Mission Indians P.O. Box 693 San Gabriel, CA 91778

SUBJECT: AB 52 CONSULTATION WITH NATIVE AMERICAN TRIBES

Dear Chief Morales:

We are writing to you pursuant to AB 52's requirement for consultation with Native American tribes. Please let us know within 30 days of the receipt of this letter if you wish to initiate consultation pursuant to AB 52 and California Public Resource Code Section 21080.3.1(a) and 65352.4 regarding the following project. If so, please let us know if you would be your tribe's lead contact person, or provide the name and contact information for another lead tribal representative with whom we can coordinate.

Oakmont of Agoura Hills

- 71,020 square feet of senior assisted living and memory care facility on 5.7 acres.
- 29353 Canwood Street, Agoura Hills (APN 2053-001-005)
- 25,100 cubic yards of grading with no net import or export of soil
- Hillside lot of about 16 percent slope
- Steeper hillside portion of lot to remain ungraded and as open space
- All oak trees to be preserved

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If you have any questions, or need further information, please let me know. I can be reached at (818) 597-7310 or at <u>acook@ci.agoura-hills.ca.us</u>. Thank you.

Sincerely,

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Allison Cook, AICP Assistant Planning Director

Attachments



"Gateway to the Santa Monica Mountains National Recreation Area"

June 5, 2017

Julie Tumamait-Stenslie Barbareno/Ventureno Band of Mission Indians 365 North Poli Avenue Ojai, CA 93023

SUBJECT: AB 52 CONSULTATION WITH NATIVE AMERICAN TRIBES

Dear Ms. Temamai-Stensilie:

We are writing to you pursuant to AB 52's requirement for consultation with Native American tribes. Please let us know within 30 days of the receipt of this letter if you wish to initiate consultation pursuant to AB 52 and California Public Resource Code Section 21080.3.1(a) and 65352.4 regarding the following project. If so, please let us know if you would be your tribe's lead contact person, or provide the name and contact information for another lead tribal representative with whom we can coordinate.

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Sincerely,

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Allison Cook, AICP Assistant Planning Director

Attachments











LANDESIGN GROUP 334 GRAVENSTEIN HWY, N. SEBASTOPOL, CA (707) 829-2580

DECEMBER, 2016

OAKMONT OF AGOURA HILLS 29353 CANWOOD STREET AGOURA HILLS, CALIFORNIA

AFRIAL MAP OAKMONT SENIOR LIVING SHEET:

OAKMONT of AGOURA HILLS PROJECT DESCRIPTION 6/1/17

Oakmont Senior Living is submitting an application to develop a 75-unit assisted living and memory care community in the City of Agoura Hills at 29353 Canwood Street, on the north side of the 101 Freeway. We believe this 5.748-acre site will be an ideal location for our residents to enjoy close proximity to all the amenities that the City of Agoura Hills has to offer.

Surrounding Land Uses

To the east of the site is a vacant parcel and an office building. To the west is an office building. To the south is Canwood Street which fronts on the 101 Freeway. To the north is vacant land and a single family residential neighborhood.

Services and Amenities

This two story structure will be designed architecturally from the ground up to provide for the special needs of our seniors. All the resident rooms will be supplemented with common areas to promote friendships and create a sense of open community. The proposed project will offer a wide range of services within a gracious and secure environment.

This community will provide amenities such as private and formal dining rooms, a café, entertainment and activity rooms, beauty salon, library, outside courtyard and more. There will be an in-house fitness center, and a private surround-sound theater. Luxurious comfort will be defined by the fine woodwork, elegant furnishings, artwork, fireplaces, and fresh flowers. Conversation areas are strategically located throughout the building to promote socializing.

In this fully licensed residential care community, residents will receive healthy meals in our dining room, housekeeping, assistance from knowledgeable staff, an emergency response system, programs and health screening. The dining room and exhibition kitchen will be operated like a restaurant directed by a chef. Breakfast will be served from 7 to 9:30 AM, lunch from 11:30 AM to 1:30 PM, and dinner from 5 to 8 PM.

Progressive care needs of the residents will be addressed by providing high levels of assisted living in their individual units. This will fulfill our aging-in-place philosophy allowing our residents to stay in their chosen unit. At move-in, the majority of our residents are in their early to mid-80's. They utilize a myriad of assisted living services offered within the community such as medication management, our in house concierge doctor program and diabetes management.

In addition, twenty six (26) of the units are set aside for memory care. The memory care program will be offered in a specifically designed area for residents with Alzheimer's disease and other forms of dementia.

Being that few residents drive, we take care of their transportation needs by providing a 20+ passenger bus with a qualified driver along with a smaller vehicle for local trips. Our staff will take residents to shop, doctor appointments and other community activities.

Housekeeping services, residential and grounds maintenance, and 24-hour onsite management are among the many amenities that provide peace-of-mind to residents and their families. In addition to our personal service philosophy, we promote intergenerational opportunities and work closely with the community to develop ongoing programs.

Resident Leases.

All residents are on a month to month lease agreement. There is no mandated length of stay for our residents. Depending on their physical condition when they move in, the length of our resident's stay could be as short as a few months to over 10 years

Licensing and Age Restrictions

All of the units will be licensed by the State of California Department of Social Services as a Residential Care Facility for the Elderly, classified as "Assisted Living." The California definition of a Residential Care Facility for the Elderly from Title 22 mentions people 60 and above. However, there is a qualifier that operators cannot restrict entry of those under 60 if they have similar health conditions as a typical resident and require the services we have to offer. (See language below) So if a resident is 52 and in the early stages of Alzheimer's disease, by statute, they would meet the requirements as a potential resident.

"Residential Care Facilities for the Elderly (RCFE) provide care, supervision and assistance with activities of daily living, such as bathing and grooming. They may also provide incidental medical services under special care plans. The facilities provide services to persons 60 years of age and over and persons under 60 with compatible needs. RCFEs may also be known as assisted living facilities, retirement homes and board and care homes. The facilities can range in size from six beds or less to over 100 beds. The residents in these facilities require varying levels of personal care and protective supervision. Because of the wide range of services offered by RCFEs, consumers should look closely at the programs of each facility to see if the services will meet their needs."

Employees

Being that this is a licensed facility, the property will be open and operating on a 24-hour basis, seven days a week. The number of employees will fluctuate throughout the day from a high of 28 employees during the morning and

afternoon and 4-6 employees through the evening and night shift. The morning shift starts at approx. 6 AM, the afternoon shift will start around 2:00 PM and the night shift at 10PM. We are proud to say that at most of our communities over fifty percent of the employees are residents of the local community. The following summarizes our proposed staffing at the community:

Oakmont Senior Living c	of Agoura Hills			
Budgeted Staffing & Shift F	Requirements			
Jun-17				
	Units	Residents		
Asst. Living	48	52		
Alzheimer's	27	34		
	75	86		
	in the second second			
	AM Shift	Day Shift	PM Shift	Night Shift
	6am-2:00pm	8am-5pm	2pm-10:00pm	10pm-6:00am
Staffing-FTE's				
Executive Director		1		
Marketing Director		1		
Marketing Associate		1		
Activity Director		1		
Activity Assistant		1		
Health Services Director		1		
Business Office Manager		1		
Concierge		1		
Culinary Director		1		
Cook	2		2	
Kitchen Staff	2		1	
Meal Servers	1		3	
Housekeeping	2		1 1 1	
Maintenance Director	1			
Maintenance Assistant			1	
AL Caregivers	4		3	3
Bus Driver		1		
Traditions Director		1		
Traditions Caregivers	5		5	2
	17	11	16	5
Total FTE's	49			
Total Employees	60			

Neighborhood Impacts

The proposed facility will have little or no negative impacts on the surrounding community with regard to:

- Traffic: Low impact, with minimal effect on the AM/PM peak commute times.
- Schools: All residents are senior citizens; therefore schools are not affected.
- Noise: Similar to other residential uses.
- Parking: Our current site plan includes 54 parking spaces, which exceeds the number required by ordinance.

Socially and economically, our proposal provides much needed high quality services for seniors, full time jobs for the local community and will support the local economy.