



March 16, 2022

Job # S210612

No Worries! RV and Boat Storage, LLC
Attention: Tom W. Comber
28447 Witherspoon Parkway
Valencia, California 91355

Subject: Response to Comments for No Worries! RV and Boat Storage

This letter is in response to Michael Baker International (Michael Baker) staff review comments for the No Worries! RV and Boat Storage project. Comments are found in Michael Baker's review, dated February 7, 2022, and this letter references the location of each comment response or requested changes in the revised report. It should be noted that, since the original acoustical report, dated August 12, 2021, there have been some design changes in the site plan. The analyses shown in the updated report reflect the changes in the site plan.

Italics are added to indicate Michael Baker staff comments.

Michael Baker Comments:

- 5) *Page 10, Best Management Practice (BMP) No. 1: States that, "Additionally, no construction activity should occur on Sundays" Although a plausible acoustical BMP recommendation, the project, as described in the CalEEMod Emissions Summary, proposes to perform grading on an aggressive timeline schedule of seven days a week (including Sundays). If the County elects as a condition to not have grading/ construction performed on Sundays, a note should be added in the analysis noting that the construction schedule is compressed in the modeling.*

RESPONSE: It was confirmed with the Client that construction is only proposed Monday through Saturday. No construction activity will occur on Sundays, and therefore, BMP 1 remains as originally written.

- 6) *Page 10, BMP No. 2: Suggest including in this BMP that "the applicant should coordinate with the County, prior to construction, in designating a staging area for motorized equipment that is situated the farthest away from nearby sensitive receptors (residences), prior to project grading."*

RESPONSE: This measure was revised to include the above recommendation. Please see Page 10 of the report for the revised section.

If you have any questions or require additional information, please feel free to contact Mo Ouwenga at 760-738-5570 or mouwenga@eilarassociates.com.

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Revised Acoustical Analysis Report for No Worries! RV and Boat Storage

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1.0 Executive Summary

The proposed project, No Worries! RV and Boat Storage, consists of the construction of a 3.53-acre RV, boat, and truck storage facility, to include 223 storage stalls. The project site is located at the southwest corner of Willard Street and Winchester Road in the Harvest Valley/Winchester Planning Area of the County of Riverside, California.

The County of Riverside Noise Element to the General Plan requires the assessment of noise impacts from on-site mechanical equipment to determine if additional project design features are necessary and feasible to reduce project-related noise impacts to comply with applicable noise limits. Calculations show that, with the proposed CMU walls in place, noise levels from the proposed air compressor and rooftop HVAC equipment are not expected to exceed the applicable noise limits of Riverside County at surrounding residential property lines. Additionally, no significant noise impacts would result from project-generated traffic.

Calculations show that noise from temporary construction activities will not exceed the typical construction noise threshold of 75 dBA at surrounding sensitive receptors. Construction is prohibited between the hours of 6 p.m. and 6 a.m. during the months of June through September, and between the hours of 6 p.m. and 7 a.m. during the months of October through May. Best management practices, including adhering to permissible hours of operation, maintaining equipment in proper operating condition, and placing staging areas at furthest locations from noise sensitive receptors, shall also be employed as much as feasible to reduce noise impacts to surrounding sensitive receptors. With a mitigation measure in place prohibiting the use of a vibratory roller within 75 feet of nearby off-site structures, vibration impacts during paving are not anticipated to cause damage to off-site buildings and will only be “distinctly perceptible” at off-site receivers, thereby reaching a level that is less than significant. Vibration from other operational construction equipment on site is expected to be less than significant without the application of further restrictions as it is expected to be “barely perceptible” at worst-case locations on site.

2.0 Introduction

This acoustical analysis report is submitted to satisfy the noise requirements of the County of Riverside. Its purpose is to assess noise impacts from on-site activity and project-generated traffic to determine if project design features are necessary to reduce the noise impacts to be compliant with applicable noise limits.

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting, abbreviated "dBA," to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the metric “ L_{EQ} .” Unless a different time period is specified, “ L_{EQ} ” indicates the time-averaged noise level over a period of one hour. Sound pressure is the actual noise experienced by a human or registered by a sound level instrument. When sound pressure is used to describe a noise source, the distance from the noise source must be specified in order to provide complete information. Sound power, on the other hand, is a specialized analytical metric used to provide information without the distance requirement, and it may be used to calculate the sound pressure at any desired distance.

The Community Noise Equivalent Level (CNEL) is a calculated 24-hour weighted average, where sound levels during evening hours of 7 p.m. to 10 p.m. have an added 5 dB weighting, and sound levels during nighttime hours of 10 p.m. to 7 a.m. have an added 10 dB weighting. This is similar to the Day-Night sound level, L_{DN} , which is a 24-hour average with an added 10 dB weighting on the same nighttime hours but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on A-weighted decibels. These metrics are used to express noise levels for both measurement and municipal regulations, for land use guidelines, and for enforcement of noise ordinances.

2.1 Project Description

The proposed project, No Worries! RV and Boat Storage, consists of the construction of a 3.53-acre RV, boat, and truck storage facility, to include 223 storage stalls. Additional provided on-site amenities include a keypad entrance, security cameras, an office, compressed air, a propane filling station, a waste dump, a potable soft water supply, solar luminaries, and RV supply sales. The primary sources of noise on site are expected to be the air compressor, rooftop HVAC equipment serving the office, and project-generated traffic. The propane station, waste dump, and potable soft water pump are not expected to generate significant levels of noise.

Though the hours of operation for the office and air compressor will be limited to be 7 a.m. to 5 p.m., Thursday through Monday, storage lots are proposed to be accessible via the keypad entrance gate 24 hours a day, every day.

For additional project details, please refer to the project plans, provided in Appendix A.

2.2 Project Location

The project site is located at the southwest corner of Willard Street and Winchester Road in the Harvest Valley/Winchester Planning Area of the County of Riverside, California. The Assessor's Parcel Numbers (APNs) for the site are 462-182-018 and 462-185-006. The project site is currently vacant. The project site and surrounding sites to the north, south, and east (across Winchester Road) are currently zoned Commercial Retail (CR). Properties to the west are zoned Medium Density Residential (MDR). There are residential land uses to the north, east, and west of the project site, including 32945 and 32955 Willard Street. Winchester Elementary School is located to the south of the project site (across Haddock Street). For a graphical representation of the site, please refer to the Vicinity Map, Assessor's Parcel Map, Satellite Aerial Photograph, and Topographic Map provided as Figures 1 through 4, respectively.

2.3 Applicable Noise Regulations

The County of Riverside Noise Element to the General Plan gives noise limits for stationary noise sources, such as the proposed compressor and rooftop HVAC equipment. According to Table N-2 of the Noise Element, noise impacts to off-site residential receivers should not exceed 65 dBA $L_{EQ(10\text{ min})}$ between the daytime hours of 7 a.m. and 10 p.m. and 45 dBA $L_{EQ(10\text{ min})}$ between the nighttime hours of 10 p.m. and 7 a.m.

Section 2i of Riverside County Ordinance 847 allows private construction projects located within one quarter mile of inhabited dwellings to be exempt from County noise standards, provided that construction does not occur between the hours of 6 p.m. and 6 a.m. during the months of June through September, and between the hours of 6 p.m. and 7 a.m. during the months of October through May. During permissible hours of operation, Riverside County does not have a specific noise limit with which construction noise must comply. In lieu of specific noise criteria established by the local jurisdiction, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual (see reference, hereafter "FTA Manual") contains guidelines for construction noise assessments that may be applied. Table 7-3 of the Manual states that an appropriate construction noise limit would be an eight-hour average of 80 dBA during daytime hours. Other municipalities in Southern California, including, but not limited to, the County of San Diego and the City of San Diego, enforce a temporary construction noise limit of 75 dBA over the course of either an eight-hour day or a twelve-hour day at occupied residential properties. An eight-hour noise limit of 75 dBA has therefore been applied at surrounding residential properties to ensure temporary construction noise impacts are adequately controlled.

Pertinent sections of the Noise Element to the General Plan and Ordinance 847 are provided as Appendix B.

3.0 Environmental Setting

3.1 Existing Noise Environment

The primary noise source in the vicinity of the project site is roadway traffic from State Route 79 and surrounding roadways, with some minor noise impacts from wildlife and aircraft. No other noise sources in the vicinity of the project site are considered to be significant.

3.2 Measured Noise Levels

A long-term noise measurement was made beginning the morning of Monday, July 12, 2021 and running through the afternoon of Tuesday, July 13, 2021. The purpose of this measurement was to obtain data about existing ambient noise levels on site. The noise measurement performed is expected to be representative of the typical noise exposure at the site and encompasses the primary source of noise, which is traffic on State Route 79. The noise measurement was performed at approximately four feet above ground level, where the meter was placed in a tree on site for security purposes. Noise data obtained on site is shown in Table 1, and the measurement location is shown graphically in Figure 3. Please refer to Appendix C for detailed measurement information.

Table 1. Long-Term Measured Noise Levels on Site		
Date	Time	Hourly Average Noise Level (dBA L _{EQ})
July 12, 2021	10 a.m. – 11 a.m.	64.6
	11 a.m. – 12 p.m.	60.8
	12 p.m. – 1 p.m.	60.8
	1 p.m. – 2 p.m.	62.2
	2 p.m. – 3 p.m.	61.5
	3 p.m. – 4 p.m.	62.6
	4 p.m. – 5 p.m.	63.8
	5 p.m. – 6 p.m.	62.2
	6 p.m. – 7 p.m.	62.4
	7 p.m. – 8 p.m.	61.3
	8 p.m. – 9 p.m.	60.0
	9 p.m. – 10 p.m.	59.3
	10 p.m. – 11 p.m.	57.9
11 p.m. – 12 a.m.	54.3	
July 13, 2021	12 a.m. – 1 a.m.	52.9
	1 a.m. – 2 a.m.	51.6
	2 a.m. – 3 a.m.	52.6
	3 a.m. – 4 a.m.	54.9
	4 a.m. – 5 a.m.	60.2

Table 1. Long-Term Measured Noise Levels on Site		
Date	Time	Hourly Average Noise Level (dBA L _{EQ})
July 13, 2021	5 a.m. – 6 a.m.	64.3
	6 a.m. – 7 a.m.	64.3
	7 a.m. – 8 a.m.	63.0
	8 a.m. – 9 a.m.	61.4
	9 a.m. – 10 a.m.	60.2
	10 a.m. – 11 a.m.	60.0
	11 a.m. – 12 p.m.	59.6
	12 p.m. – 1 p.m.	67.7
	1 p.m. – 2 p.m.	62.3
	2 p.m. – 3 p.m.	63.9
	3 p.m. – 4 p.m.	64.3
	4 p.m. – 5 p.m.	62.4

Measured noise levels were observed to range from a minimum of 51.6 dBA between the hours of 1 a.m. and 2 a.m. on July 13, 2021 to a maximum of 67.7 dBA between 12 p.m. and 1 p.m. on July 13, 2021.

3.3 Future Noise Environment

3.3.1 Stationary Noise Sources

The future noise environment in the vicinity of the project site will be primarily a result of the same ambient noise sources, as well as the noise generated by activity on the project site. The primary sources of noise associated with the project will be the proposed air compressor and rooftop HVAC equipment. All other on-site equipment is not expected to produce significant levels of noise.

The air compressor is proposed to be the model 2475N7.5, manufactured by Ingersoll Rand. According to product specifications, the air compressor is expected to have a noise level of approximately 85 dBA at a distance of 3 feet from the equipment. A typical spectrum of an air compressor, which was obtained from the U.S. EPA (see reference), was applied to this overall sound pressure level of 85 dBA at 3 feet. Please refer to Table 2 for sound pressure levels of this unit.

Table 2. Sound Pressure Level of Ingersoll Rand 2475N7.5, Measured at 3 feet from Equipment									
Source	Sound Pressure Level at Octave Band Frequency (dB)								Total (dBA)
	63	125	250	500	1K	2K	4K	8K	
Ingersoll Rand 2475N7.5	66.6	66.6	68.6	72.6	78.6	81.6	75.6	66.6	85

The proposed office building is expected to be serviced by a rooftop packaged HVAC unit, though the exact unit is not currently known. A typical unit expected to be used at the site is the 5-ton 50HCQA06 unit,

manufactured by Carrier. Manufacturer sound power levels for the units are shown in Table 3. Please refer to Appendix D for additional information.

Table 3. Sound Power Level of Carrier 50HCQ Rooftop HVAC Unit									
Source	Sound Power Level at Octave Band Frequency (dB)								Total (dBA)
	63	125	250	500	1K	2K	4K	8K	
Carrier 50HCQA06	57.7	66.6	68.7	72.9	74.5	71.1	67.6	62.6	79

No other equipment on site is anticipated to generate significant levels of noise at surrounding receivers.

3.3.2 Project-Generated Traffic

Project-generated traffic volumes were evaluated to determine whether the addition of vehicle trips associated with the project would have a direct noise impact on traffic noise levels in the vicinity of the project. An analysis of the potential change in traffic noise levels to the surrounding area was evaluated based on existing traffic noise levels for State Route 79, as provided by Caltrans, and project-generated traffic volumes, as provided by the project traffic study (see references). The project's impacts were evaluated to determine whether a direct noise impact will result. A significant impact is generally considered to be a doubling of sound energy, which is an increase of three decibels over existing conditions.

According to Caltrans, State Route 79 currently has a traffic volume of approximately 16,000 Average Daily Trips (ADT) in the vicinity of the project site. Caltrans also shows that State Route 79 currently carries a truck percentage mix of 6.25 medium trucks and 3.25 heavy trucks in the vicinity of the project site. According to the project traffic study, the project will generate approximately 106 ADT. As no truck percentage mix information was available, it was assumed that the project-generated traffic will have a truck percentage mix of 25% medium trucks and 25% heavy trucks; this relatively high number was used, as a higher concentration of trailers is expected due to the proposed storage of RVs, trucks, and boats. These traffic volumes were incorporated into the analysis detailed in Section 5.2. Please refer to Appendix E for pertinent sections of the project traffic study.

3.3.3 Temporary Construction Activity

Detailed construction information was not available at the time this study was prepared. A list of typical construction equipment expected to be operational on the site is shown in Table 4, based on experience working on similar projects. Noise impacts for the grading and utilities phase of construction are the focus of this analysis, as this stage is when the most pieces of heavy equipment would be operational on site, and therefore, noise levels at neighboring properties would be at their highest. Construction equipment noise levels were obtained from noise measurements made by Eilar Associates on March 25, 2010 for Brutoco Engineering & Construction, Inc. for the Orange Line Extension Project, Metro Contract #C0943, City of Los Angeles, California. Noise levels are shown in Table 4.

Table 4. Anticipated Construction Activity and Equipment Noise Levels		
Equipment	Duty Cycle (%) ¹	Noise Level at 50 feet (dBA)
Front Loader	40	72
Backhoe	40	74

Table 4. Anticipated Construction Activity and Equipment Noise Levels		
Equipment	Duty Cycle (%) ¹	Noise Level at 50 feet (dBA)
Excavator	40	75
Water Truck	40	77

¹Duty cycle information was provided by the Federal Highway Administration.

Equipment noise levels shown above were incorporated into the temporary construction noise impact analysis as shown in Section 5.3.

4.0 Methodology and Equipment

4.1 Methodology

4.1.1 CadnaA Noise Modeling Software

Modeling of the outdoor noise environment is accomplished using CadnaA Version 2021, which is a model-based computer program developed by DataKustik for predicting noise impacts in a wide variety of conditions. CadnaA (Computer Aided Noise Abatement) assists in the calculation, presentation, assessment, and alleviation of noise exposure. It allows for the input of project information such as noise source data, barriers, structures, and topography to create a detailed model and uses the most up-to-date calculation standards to predict outdoor noise impacts. Noise standards used by CadnaA that are particularly relevant to this analysis include ISO 9613-2 (Attenuation of sound during propagation outdoors). CadnaA provides results that are in line with basic acoustical calculations for distance attenuation and barrier insertion loss.

4.1.2 Roadway Noise Calculation

The Traffic Noise Model (TNM) calculation protocol in CadnaA Version 2021 (based on the methodology used in TNM Version 2.5, released in February 2004 by the U.S. Department of Transportation) was used for all traffic modeling in the preparation of this report. Using the TNM protocol, the CNEL is calculated as 9.2% of the ADT for surrounding roadways, based on the studies made by Wyle Laboratories (see reference). Future CNEL is calculated for desired receptor locations using future road alignment, elevations, lane configurations, projected traffic volumes, estimated truck mixes, and vehicle speeds. Noise attenuation methods may be analyzed, tested, and planned with TNM, as required.

4.1.3 Formulas and Calculations

Decibel Addition

To determine the combined logarithmic noise level of two known noise source levels, the values are converted to the base values, added together, and then converted back to the final logarithmic value, using the following formula:

$$L_C = 10\log(10^{L_1/10} + 10^{L_2/10} + \dots + 10^{L_N/10})$$

where L_C = the combined noise level (dB), and
 L_N = the individual noise sources (dB).

This procedure is also valid when used successively for each added noise source beyond the first two. The reverse procedure can be used to estimate the contribution of one source when the contribution of another concurrent source is known and the combined noise level is known. These methods can be used for L_{EQ} or other metrics (such as L_{DN} or $CNEL$), as long as the same metric is used for all components.

Attenuation Due to Distance

Attenuation due to distance is calculated by the equation:

$$SPL_2 = SPL_1 - 20 \log\left(\frac{D_2}{D_1}\right)$$

where SPL_1 = Known sound pressure level at known distance,

SPL_2 = Calculated sound pressure level at distance,

D_1 = Distance from source to location of known sound pressure level, and

D_2 = Distance from source to location of calculated sound pressure level.

This is identical to the more commonly used reference of 6 dB reduction for every doubling of distance. This equation does not take into account reduction in noise due to atmospheric absorption.

Hourly L_{EQ} Summation

To determine the hourly average noise levels (L_{EQ}) when the noise is created for less than the full hour, convert the logarithm values to the base energy value, multiply by the percentage of the hour that the noise occurs, and then convert the sum back to a logarithmic value. This is done with the following formula:

$$L_{EQ} = 10 \log(P_H \times 10^{L_P/10})$$

where P_H = the percent or fraction of the hour noise is created, and

L_P = the partial hour noise level (dB).

Construction Vibration Calculations

The construction vibration assessment contained herein is evaluated using calculations of peak particle velocity (PPV). PPV at receivers is calculated as follows:

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

where PPV_{equip} is the peak particle velocity (in inches per second) of the equipment, adjusted for distance, PPV_{ref} is the reference vibration level (in inches per second) at a distance of 25 feet from the equipment, and D is the distance from the equipment to the receiver.

4.2 Measurement Equipment

The following equipment was used at the site to measure existing noise levels:

- Soft dB Model Piccolo II Type 2 Sound Level Meter, Serial # P0220110906
- Larson Davis Model CAL200 Type 1 Calibrator, Serial # 16455
- Digital camera, tripod, microphone with windscreen

The sound level meters were field-calibrated immediately prior to the noise measurement and checked afterward to ensure accuracy. All sound level measurements conducted and presented in this report, in accordance with the regulations, were made with a sound level meter that conforms to the American National Standards Institute specifications for sound level meters (ANSI S1.4). All instruments are calibrated and maintained per the manufacturers' standards.

5.0 Noise Impacts

5.1 Stationary Noise Sources

Noise levels of the proposed air compressor and rooftop HVAC equipment were calculated using CadnaA at the nearest surrounding noise-sensitive property lines to the north, east, and west of the project site. All other noise-sensitive receivers are located at a further distance from the equipment, and therefore are expected to have lower noise levels, due to distance attenuation and shielding from intervening structures. As per industry standard, the receivers (and noise contour graphics) were calculated at a height of five feet above project grade to represent the height of an average individual's ears above ground level.

This calculation also makes conservative assumptions in that it was assumed that the compressor and HVAC equipment would be in constant operation, with no breaks between uses, while in actuality it is expected to cycle on and off throughout the day. As the compressor equipment will only operate during daytime hours, only the rooftop HVAC equipment was included in nighttime noise calculations.

This analysis considers noise shielding provided by the on-site building, proposed nine-foot property line CMU wall, and proposed six-foot high air compressor enclosure. Results of the analysis are shown in Table 5. Noise contours showing daytime and nighttime equipment noise levels and source, receiver, and barrier locations are shown in Figure 5 and Figure 6, respectively. Additional information can be found in Appendix F: CadnaA Analysis Data and Results.

Table 5. Calculated Noise Levels of Mechanical Equipment Operation ¹					
Receiver	Receiver Location	Noise Limit (dBA L _{EQ} (10-min))		Mechanical Equipment Noise Level (dBA L _{EQ} (10-min))	
		Day	Night	Day	Night
R1	32925 Willard Street	65	45	50.3	30.6
R2	32910 Willard Street	65	45	51.6	33.3
R3	32940 Willard Street	65	45	50.5	32.5
R4	32945 Willard Street	65	45	59.8	34.1

¹Calculations consider shielding provided by the proposed on-site building, nine-foot property line CMU wall, and six-foot CMU compressor enclosure. Please refer to Figures 5 and 6 for a graphical representation of these wall locations.

As shown above, with the proposed CMU walls in place, noise levels from the proposed air compressor and rooftop HVAC equipment are not expected to exceed the applicable noise limits of Riverside County at surrounding residential property lines. In order to be effective, the sound barriers should be solid, with no cracks or gaps through or below the wall. Any seams or cracks must be filled or caulked as much as possible.

5.2 Project-Generated Traffic

As detailed in Section 3.3.2, the proposed project is anticipated to generate approximately 106 ADT on surrounding roadways. For a worst-case analysis of project-generated traffic noise, the anticipated project traffic was modeled on Winchester Road and Willard Street to determine the anticipated increase in noise levels along the roadway resulting from the addition of project traffic. As current traffic volumes were not available for Willard Street, the change in noise levels along this roadway was calculated assuming no existing daily traffic on this roadway, which would provide a conservative estimate of the increase in noise levels at receivers along this roadway.

A significant impact is generally considered to be a doubling of sound energy, which is an increase of three decibels over current conditions. Project-generated traffic CNEL was calculated in CadnaA, and noise increases are shown in Table 6. Please refer to Figure 7 for a graphical representation of receiver locations and Appendix F for additional details.

Table 6. Anticipated Traffic Noise Increases with Project-Generated Traffic				
Receiver	Receiver Location	Traffic Noise Impacts (CNEL)		
		Existing	Existing + Project	Noise Level Increase
R5	32925 Willard Street	50.5	50.7	0.2
R6	32945/32955 Willard Street	54.4	54.7	0.3
R7	32952 Willard Street	54.4	55.5	1.1
R8	28604 Winchester Road	64.8	64.9	0.1
R9	33008 Haddock Street	61.5	61.6	0.1
R10	28751 Winchester Road	63.7	63.8	0.1
R11	28751 Winchester Road	50.8	49.5	-1.3 ¹
R12	32902 Haddock Street	50.4	47.5	-2.9 ¹

¹Proposed project structures are expected to provide some shielding from traffic noise to receivers R11 and R12. For this reason, calculations show that traffic noise levels decrease at these receivers in the Existing + Project environment.

As shown above, project-generated traffic added to the existing traffic volume of surrounding roadways will not result in significant traffic noise impacts at adjacent properties, as calculations demonstrate that the anticipated increase in noise levels is less than three decibels at off-site receivers as a result of this project, and, in some cases, may decrease off-site traffic noise levels due to shielding provided by proposed project structures. As the addition of project-generated traffic to the existing traffic volume will be less than significant, the addition of project-generated traffic to the future traffic volume would likewise be less than significant, as future traffic volumes on State Route 79 are expected to increase in the future noise environment.

5.3 Temporary Construction Noise and Vibration

Temporary construction noise is expected to be at its highest during grading/utilities operations, when the most pieces of heavy equipment would be located on site. Riverside County does not have specific limits for construction noise, provided that the construction operations occur between the hours of 6 p.m. and 6 a.m. during the months of June through September, and between the hours of 6 p.m. and 7 a.m. during the months of October through May. During permissible hours of operation, Riverside County does not have a specific noise limit with which construction noise must comply. While the FTA Manual states that an eight-hour average noise level of 80 dBA is considered acceptable for construction noise impacts at off-site receivers, a generally accepted construction noise limit, and that employed by the County of San Diego and the City of San Diego, is an average noise level of 75 dBA at any occupied residential property line during acceptable hours of operation. An eight-hour average noise level of 75 dBA has been applied as the noise limit for off-site noise-sensitive properties surrounding the project site.

As construction equipment will move around the site over the course of each day, equipment noise levels of construction equipment were calculated from the center of the lot, to evaluate the average distance to receivers while the equipment moves around on site. There are residential receivers to the north, east, and west of the project site; however, the nearest noise-sensitive receiver is the residential lot along the west boundary of the project site, which is located at a distance of approximately 170 feet from the center of the lot. Calculations show that, at this worst-case location, construction equipment noise levels are expected to be 66 dBA over an average workday during grading/utilities activity. Please refer to Figure 8 for a graphical representation of evaluated construction noise source and receiver locations. Calculation sheets are provided in Appendix G.

As grading/utilities activity is anticipated to comply with the 75 dBA noise limit without the implementation of sound barriers, and as any other phase of construction would be expected to result in lower noise impacts at off-site receivers, no sound attenuation barriers are deemed necessary to reduce temporary noise impacts. The following best management practices should still be followed as a courtesy to residential neighbors.

1. Construction activity should be prohibited between the hours 6 p.m. and 6 a.m. during the months of June through September, and between the hours of 6 p.m. and 7 a.m. during the months of October through May. Additionally, no construction activity should occur on Sundays or legal holidays.
2. Staging areas should be placed as far as possible from residential receivers. Prior to construction, the applicant should coordinate with the County to designate a staging area for motorized equipment that is situated the farthest away from nearby sensitive (residential) receivers, prior to project grading. Ideally, staging areas would be located toward the center of the site.
3. Place stationary equipment in locations that will have a lesser noise impact on nearby sensitive receivers.
4. Turn off equipment when not in use.
5. Limit the use of enunciators or public address systems, except for emergency notifications.
6. Equipment used in construction should be maintained in proper operating condition, and all loads should be properly secured to prevent rattling and banging.
7. Schedule work to avoid simultaneous construction activities that both generate high noise levels.
8. Use equipment with effective mufflers.
9. Minimize the use of backup alarms.

With work hours limited to those allowable by Riverside County, temporary construction noise will not exceed the typical construction noise threshold of 75 dBA.

Though the proposed grading/utilities phase of construction is expected to generate the highest airborne noise levels on site, the potential use of a vibratory roller during paving would have the highest likelihood of generating vibration impacts at off-site receivers during construction. According to the Federal Transit Administration Transit Noise and Vibration Assessment Manual (see reference), a vibratory roller produces a vibration level of 0.210 inches/second peak particle velocity (PPV) at a distance of 25 feet. The evaluation of an impact's significance can be determined by reviewing both the likelihood of annoyance to individuals as well as the potential for damage to existing structures. According to the Caltrans Transportation and Construction Vibration Guidance Manual (see reference), the appropriate threshold for damage to modern residential structures is a PPV of 0.5 inches/second. Annoyance is assessed based on levels of perception, with a PPV of 0.01 being considered "barely perceptible," 0.04 inches/second as "distinctly perceptible," 0.1 inches/second as "strongly perceptible," and 0.4 inches/second as "severe."

Calculations show that vibration impacts from the vibratory roller could potentially cause minor structural damage when the equipment is operating within 15 feet of nearby off-site structures and would create vibration that is "distinctly perceptible" at a distance of 75 feet from the nearby receivers. For this reason, a mitigation measure prohibiting the use of a vibratory roller within 75 feet of off-site structures shall be implemented. The use of a non-vibratory roller is not anticipated to cause a significant amount of vibration and therefore would not be subject to this restriction.

Vibration impacts during grading have also been evaluated to determine whether further mitigation measures would be required during this stage. The FTA manual states that a small bulldozer, which is expected to be equivalent to an excavator, produces a vibration level of 0.003 inches/second PPV at a distance of 25 feet. The equipment would be located at a minimum distance of 10 feet from residential receivers at all locations on site. At this distance, the PPV would be approximately 0.01 inches/second. This level of vibration falls far below the building damage PPV criteria of 0.5 inches/second and would be considered "barely perceptible," thus resulting in less than significant vibration impacts.

With a mitigation measure in place prohibiting the use of a vibratory roller within 75 feet of off-site structures, vibration impacts are expected to be less than significant. Please refer to Appendix G for additional information.

6.0 Conclusion

The County of Riverside Noise Element to the General Plan requires the assessment of noise impacts from the proposed air compressor and rooftop HVAC equipment to determine if additional project design features are necessary and feasible to reduce project-related noise impacts to comply with applicable noise limits. Calculations show that, with the addition of a three-foot parapet wall along the western edge of the office building roof, and with proposed CMU walls in place, noise levels from the proposed air compressor and rooftop HVAC equipment are not expected to exceed the applicable noise limits of Riverside County at surrounding residential property lines. Additionally, it was determined that no significant noise impacts would result from project-generated traffic.

Calculations show that noise from temporary construction activities will not exceed the typical construction noise threshold of 75 dBA at surrounding sensitive receptors. Construction is prohibited between the hours of 6 p.m. and 6 a.m. during the months of June through September, and between the hours of 6 p.m. and 7 a.m. during the months of October through May. Best management practices, including adhering to permissible hours of operation, maintaining equipment in proper operating condition, and placing staging areas at furthest locations from noise sensitive receptors, shall also be employed as much as feasible to reduce noise impacts to

surrounding sensitive receptors. With a mitigation measure in place prohibiting the use of a vibratory roller within 75 feet of nearby off-site structures, vibration impacts during paving are not anticipated to cause damage to off-site buildings and will only be “distinctly perceptible” at off-site receivers, thereby reaching a level that is less than significant. Vibration from other operational construction equipment on site is expected to be less than significant without the application of further restrictions as it is expected to be “barely perceptible” at worst-case locations on site.

This analysis is based upon a current worst-case scenario of anticipated project-generated noise levels. Substitution of equipment with higher noise emission levels, relocation of equipment, or the extension of equipment operation hours may invalidate the recommendations of this study. These conclusions and recommendations are based on the best and most current project-related information available at the time this study was prepared.

7.0 Certification

All recommendations for noise control are based on the best information available at the time our consulting services are provided. However, as there are many factors involved in sound and impact transmission, and Eilar Associates has no control over the construction, workmanship, or materials, Eilar Associates is specifically not liable for final results of any recommendations or implementation of the recommendations.

The findings and recommendations of this acoustical analysis report are based on the information available and are a true and factual analysis of the potential acoustical issues associated with the No Worries! RV and Boat Storage project, to be located at the southwest corner of Willard Street and Winchester Road in the Harvest Valley/Winchester Planning Area of the County of Riverside, California. This report was prepared by Mo Owenga and Amy Hool.



Mo Owenga, INCE
Acoustical Consultant



Amy Hool, INCE
President/CEO

8.0 References

County of Riverside Harvest Valley/Winchester Area Plan, 6 December 2016.

County of Riverside General Plan, Noise Element, 8 December 2015.

U.S. Environmental Protection Agency, Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances, 31 December 1971.

Federal Transit Administration (FTA), Transit Noise and Vibration Impact Assessment Manual, September 2018.

County of San Diego Code of Regulatory Ordinances, Chapter 4. Noise Abatement and Control, Section 36.409.

City of San Diego Municipal Code, Chapter 5, Article 9.5: Noise Abatement and Control, Section 59.5.0404.

Caltrans Traffic Census Program, <http://www.dot.ca.gov/trafficops/census/>.

Rick Engineering Company, Project Trip Generation Summary, No Worries! RV and Boat Storage Project.

U.S. Department of Transportation Federal Highway Administration, Construction Noise Handbook, Construction Equipment Noise Levels and Ranges.

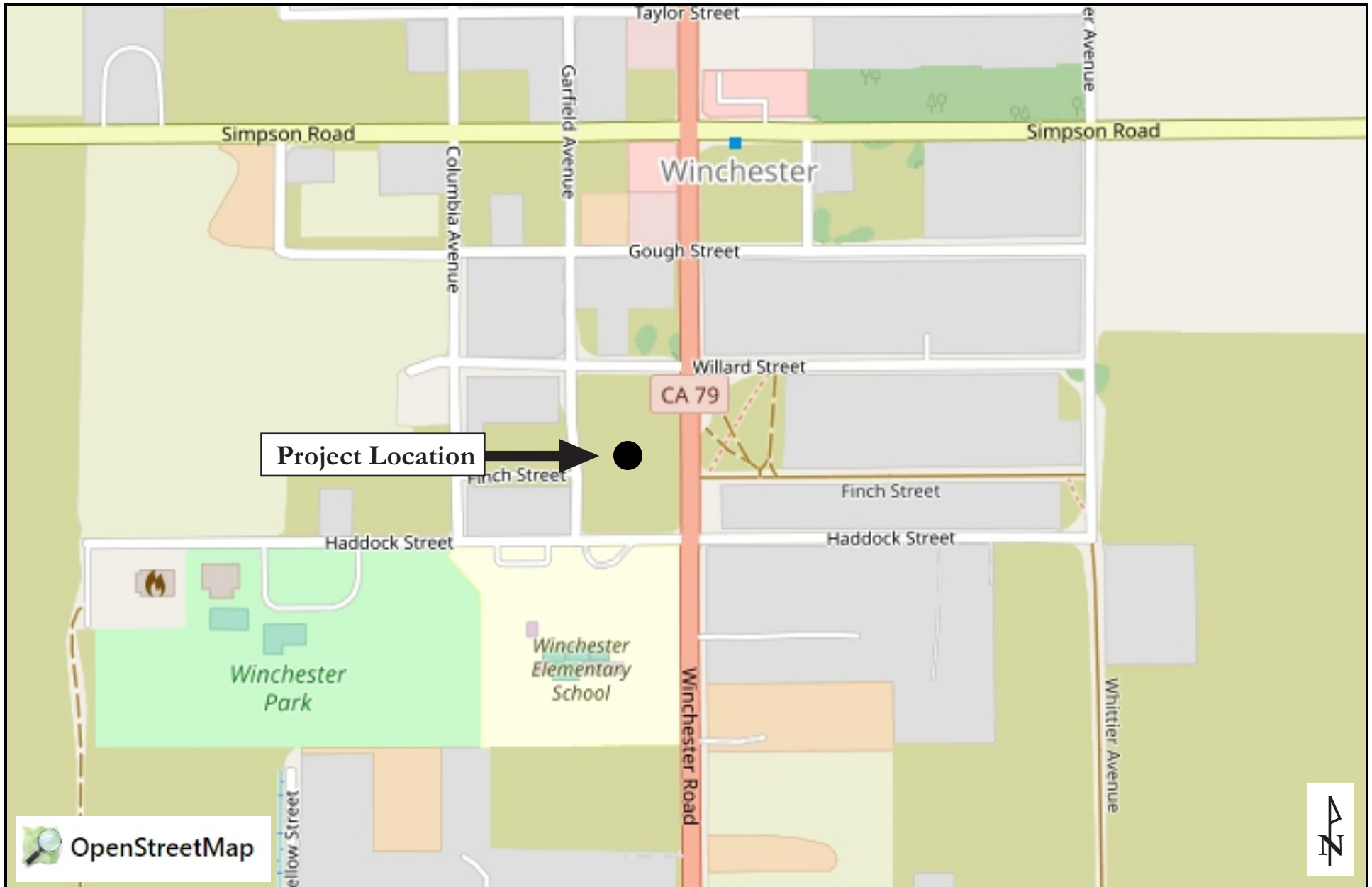
DataKustik, CadnaA (Computer Aided Noise Abatement), Version 2021.

Wyle Laboratories, Development of Ground Transportation Systems Noise Contours for the San Diego Region, December 1973.

California Department of Transportation (Caltrans), Transportation and Construction Vibration Guidance Manual, September 2020.



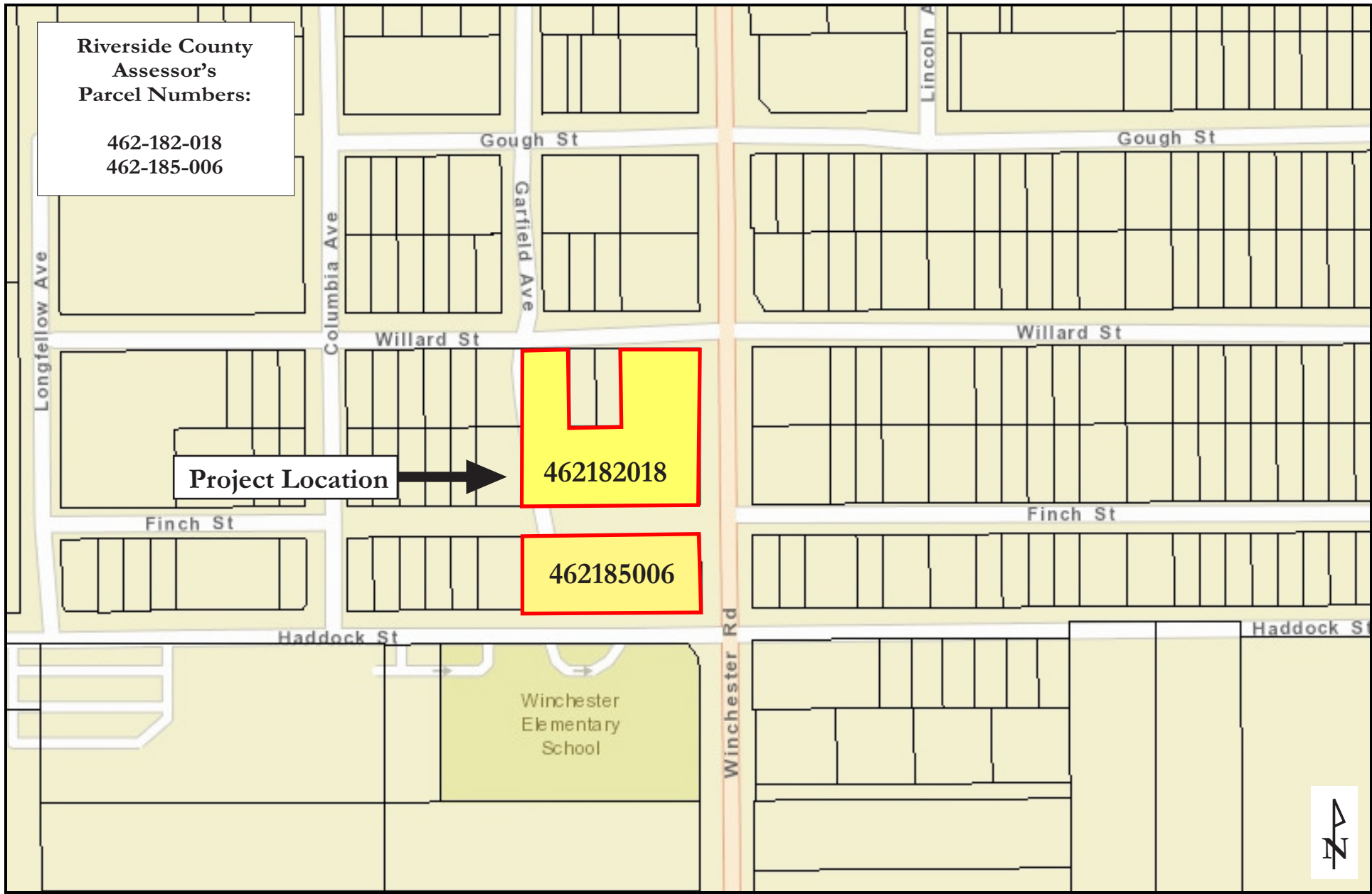
Figures



Eilar Associates, Inc.
 210 South Juniper Street, Suite 100
 Escondido, California 92025
 760-738-5570

Vicinity Map
 Job # S210612

Figure 1



Eilar Associates, Inc.
210 South Juniper Street, Suite 100
Escondido, California 92025
760-738-5570

Assessor's Parcel Map
Job # S210612

Figure 2



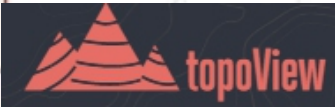
Google earth



Eilar Associates, Inc.
210 South Juniper Street, Suite 100
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760-738-5570

Satellite Aerial Photograph Showing Noise Measurement Location
Job # S210612

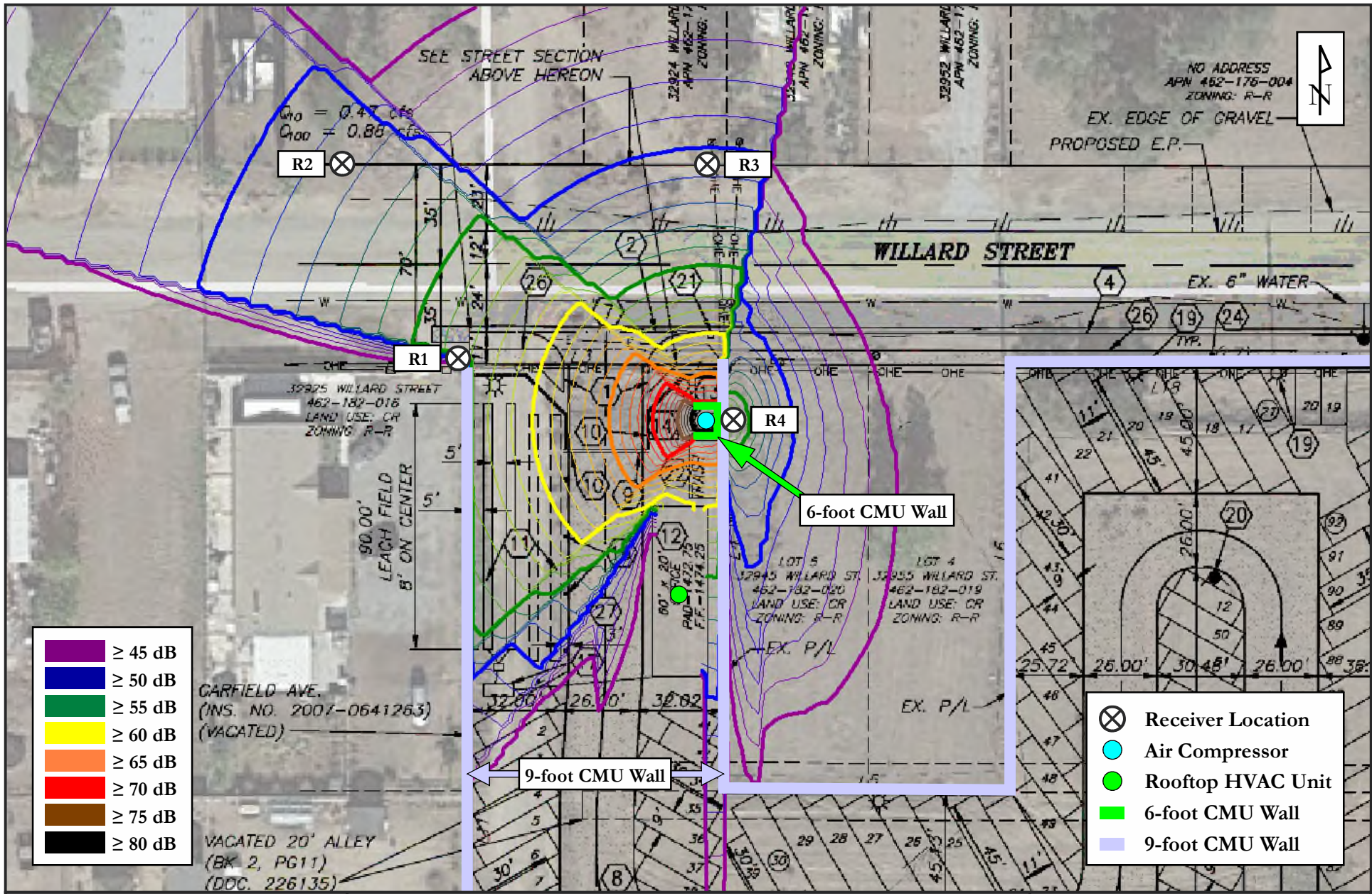
Figure 3



Eilar Associates, Inc.
 210 South Juniper Street, Suite 100
 Escondido, California 92025
 760-738-5570

Topographic Map
 Job # S210612

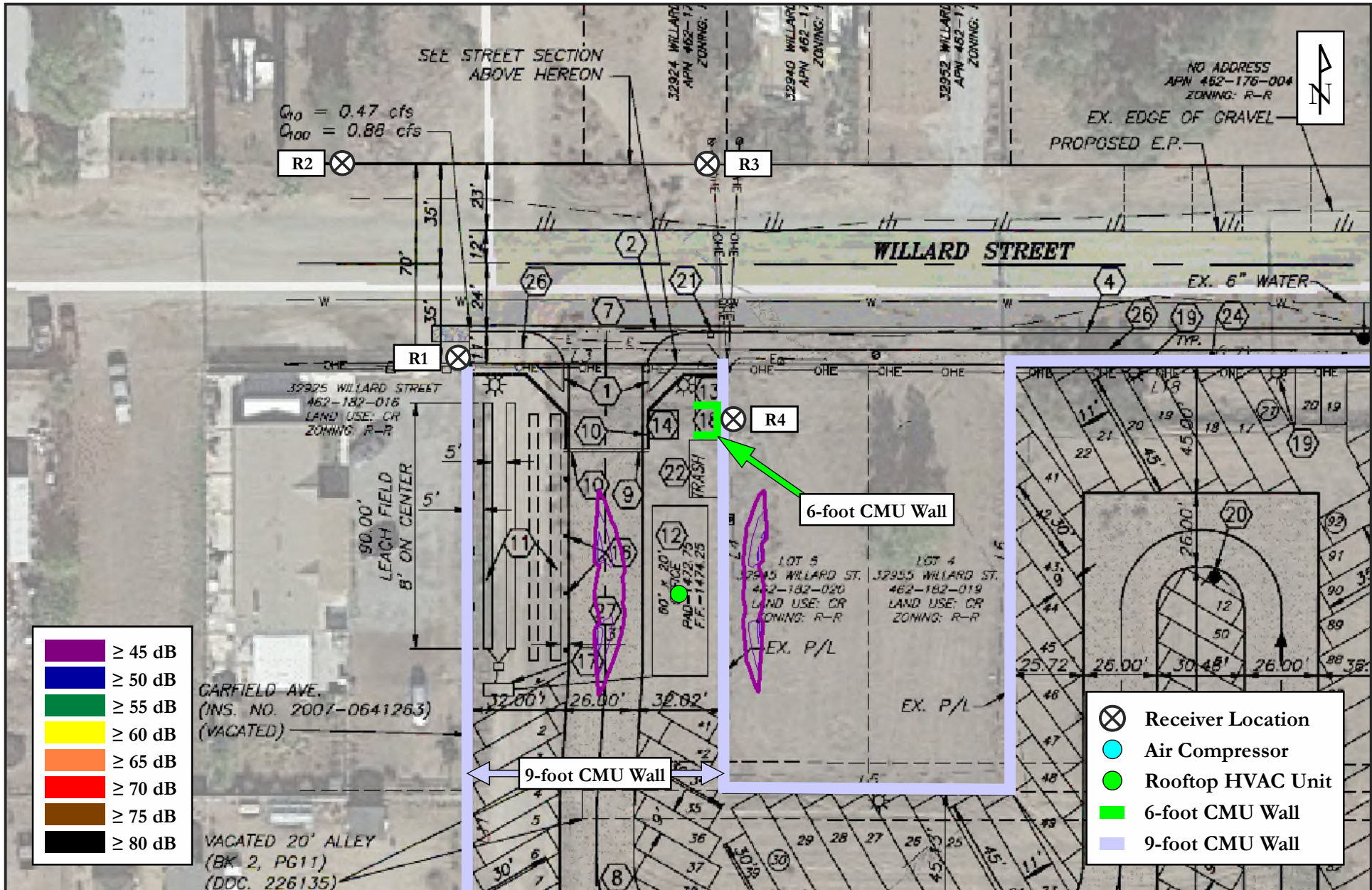
Figure 4



Eilar Associates, Inc.
 210 South Juniper Street, Suite 100
 Escondido, California 92025
 760-738-5570

Satellite Aerial Photograph Showing Site Plan, Mechanical Equipment Noise Contours, and Source, Receiver, and Barrier Locations – Day
 Job # S210612

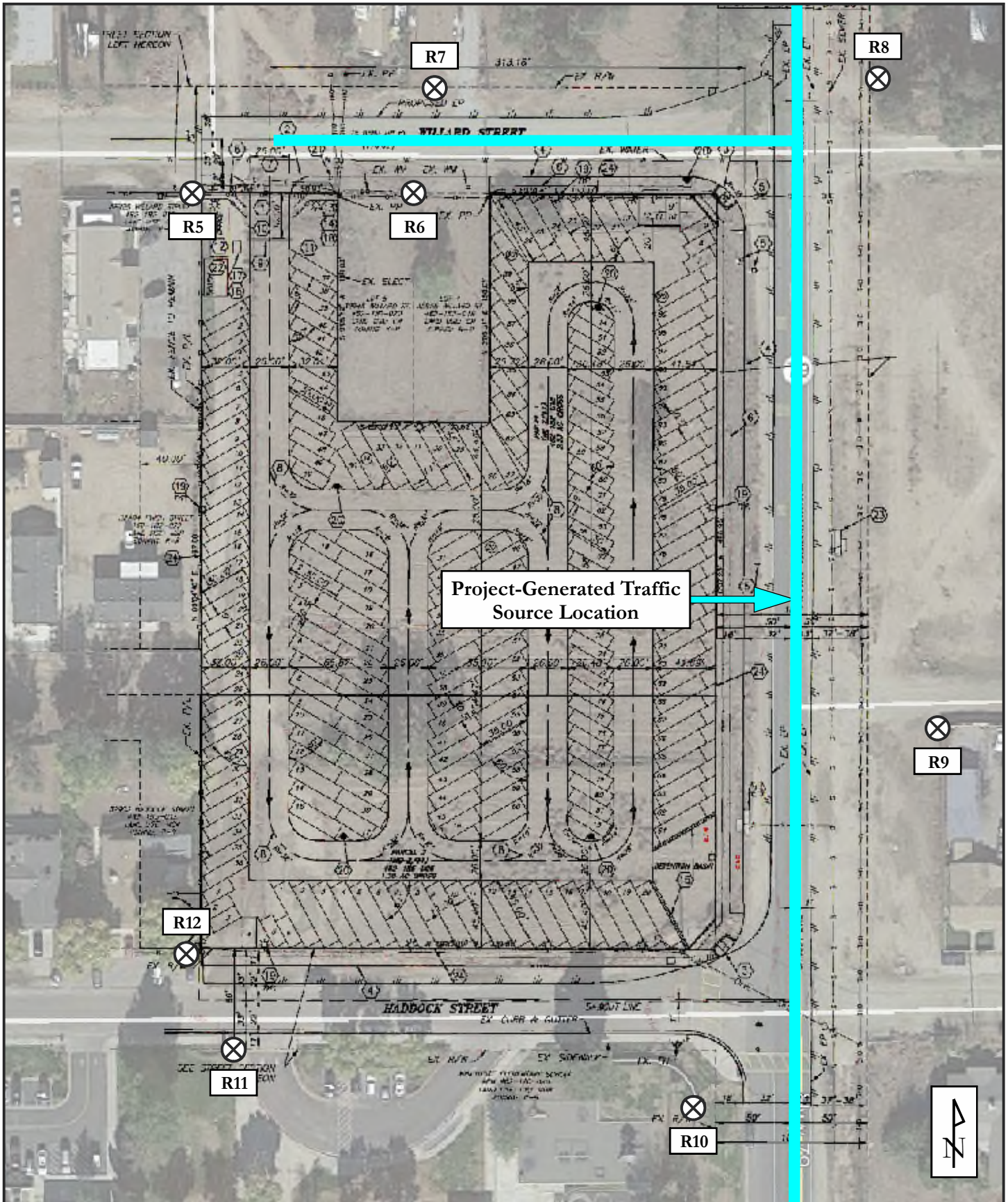
Figure 5



Eilar Associates, Inc.
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Satellite Aerial Photograph Showing Site Plan, Mechanical Equipment Noise Contours, and Source, Receiver, and Barrier Locations – Night Job # S210612

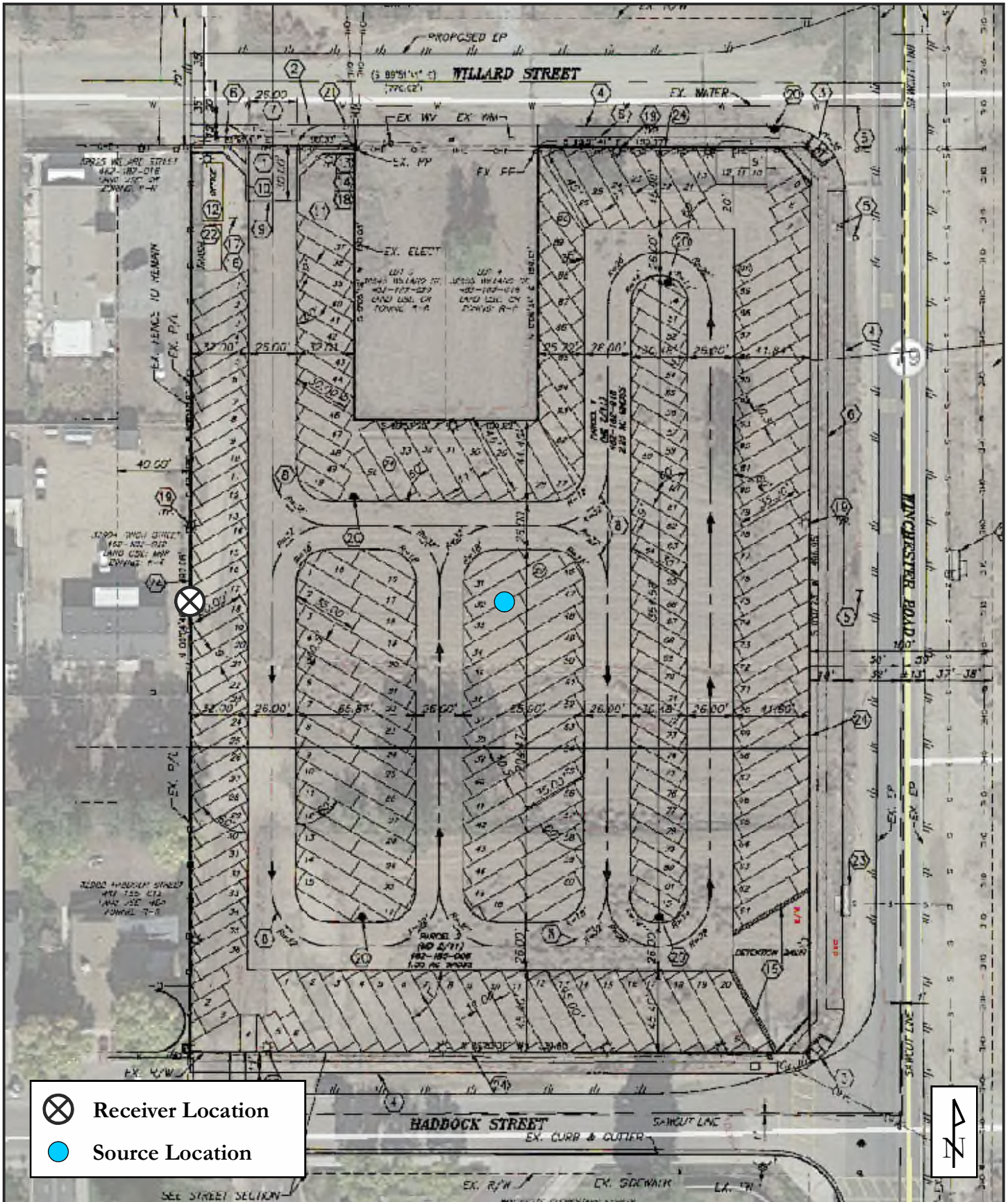
Figure 6



Eilar Associates, Inc.
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 760-738-5570

**Satellite Aerial Photograph Showing
 Site Plan and Project-Generated Traffic
 Noise Source and Receiver Locations**
 Job # S210612

Figure 7



⊗ Receiver Location
 ● Source Location



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 Escondido, California 92025
 760-738-5570

Satellite Aerial Photograph Showing
 Site Plan and Construction
 Noise Source and Receiver Locations
 Job # S210612

Figure 8



Appendix A

Project Plans

PROJECT DESCRIPTION

THIS PROJECT PROPOSES AN RV, BOAT AND TRUCK STORAGE FACILITY OF 223 STORAGE STALLS. THE STORAGE FACILITY WILL HAVE AN AUTOMATIC SLIDING GATE WITH KEY PAD ENTRANCE, SECURITY CAMERAS, AN OFFICE, COMPRESSED AIR, PROPANE FILL, SOLAR LUMINAIRES AND RV SUPPLY SALES. MECHANICAL MAINTENANCE WILL NOT BE PERFORMED ON SITE.

OWNER/APPLICANT

NO WORRIES! RV AND BOAT STORAGE LLC
28447 WITHERSPORN HWY
VALENCIA, CA 91355
OFFICE: (661) 295-1970
CONTACT NAME: TOM COMBER
CONTACT PHONE: (661) 433-8082
EMAIL: TOM@RVERRANGELLS.COM

ENGINEER/ EXHIBIT PREPARER

HZAYEN DESIGN GROUP, INC.
360 TWILIGHT COURT,
CAMARILLO, CA 93012
OFFICE: (805) 233-7778
CONTACT: IBRAHIM HZAYEN
CELL: (818)461-2642
EMAIL: IHZAYEN@HZAYEN.COM

ASSESSOR'S PARCEL No.

462-182-018-6 & 462-185-006-4
GROSS ACRES: 3.53 ACRES
NET ACRES: N/A

UTILITIES

WATER: EASTERN MUNICIPAL WATER DISTRICT
GAS: SO CAL GAS CO.
ELECTRIC: SOUTHERN CALIFORNIA EDISON
TELEPHONE/CABLE: FRONTIER COMMUNICATIONS
SEWER: DWT/S/ SEPTIC SYSTEM

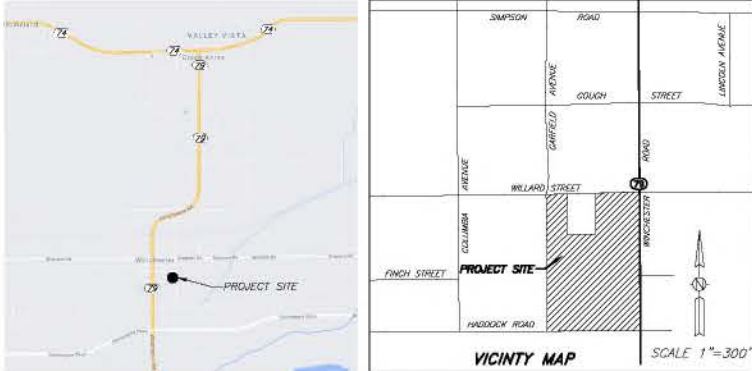
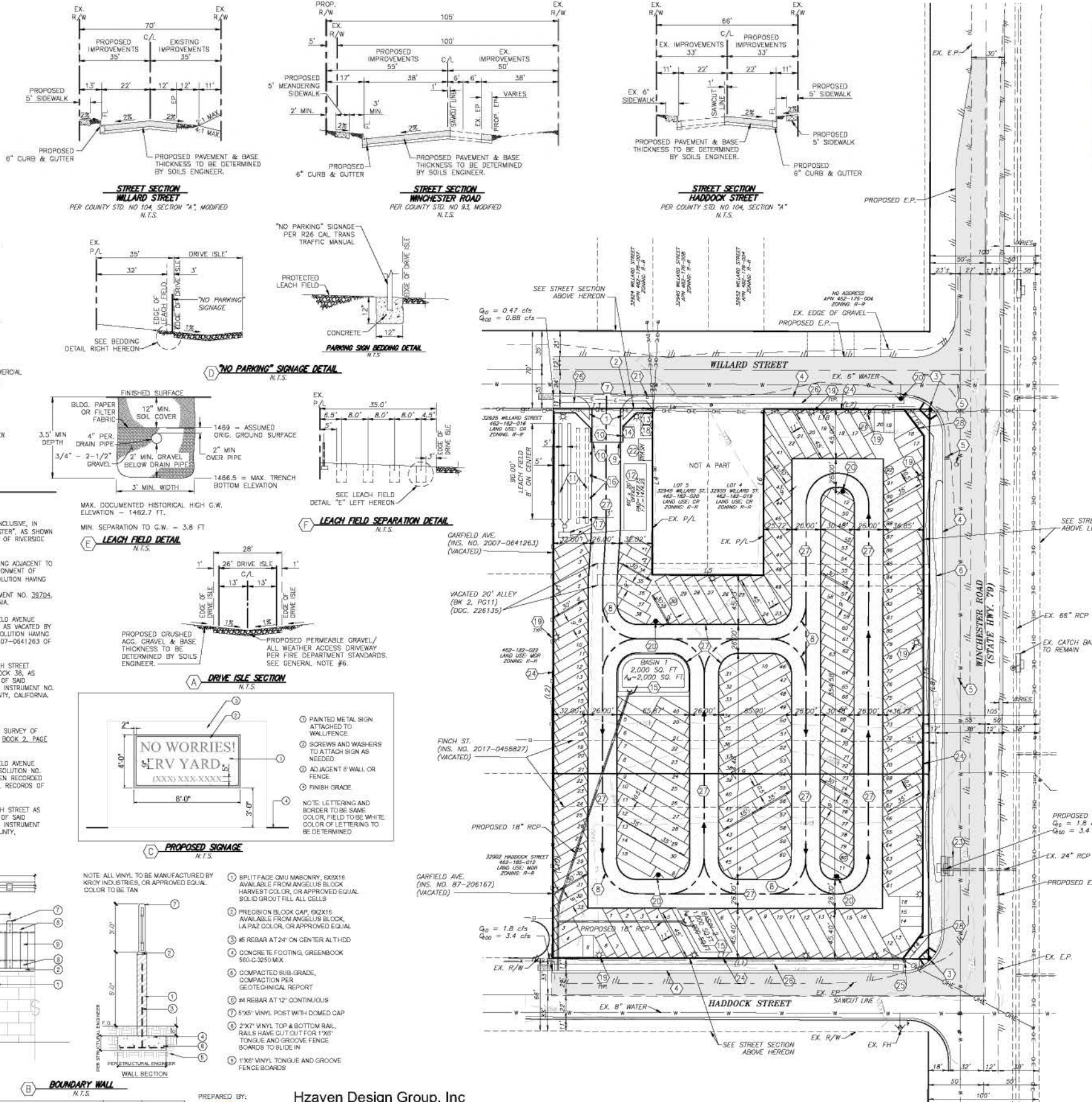
SITE DATA

EXISTING LAND USE: CR
PROPOSED LAND USE: MUA
EXISTING ZONING AREA: WINCHESTER AREA
EXISTING ZONING CLASSIFICATION: R-R
PROPOSED ZONING CLASSIFICATION: C-1/C-P GENERAL COMMERCIAL
EXISTING SPECIFIC PLAN: NOT IN A SPECIFIC PLAN
SCHOOL DISTRICT: HEMET UNIFIED
LIGHTING (ORD. #55): ZONE: B
TOWNSHIP/RANGE: T55R2W SEC 28 SE
GENERAL PLAN POLICY OVERLAY: ODD
AREA PLAN (ROP): HARVEST VALLEY/ WINCHESTER
FEMA FLOOD PLAN: ZONE:
PANEL #0605C20804
DATED APRIL 19, 2017

LEGAL DESCRIPTION

PARCEL 1: (APN: 462-182-018)
LOTS 1 THROUGH 3, INCLUSIVE AND LOTS 5 THROUGH 12, INCLUSIVE, IN BLOCK 38 OF "PARSON'S SURVEY OF THE TOWN OF WINCHESTER," AS SHOWN BY MAPS ON FILE IN BOOK 2, PAGE 11 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
TOGETHER WITH THOSE PORTIONS OF THE VACATED ALLEY LYING ADJACENT TO SAID LOTS, AS VACATED BY RESOLUTION NO. 78-332, ABANDONMENT OF UNNAMED ALLEYS (R-850), A CERTIFIED COPY OF SAID RESOLUTION HAVING BEEN RECORDED OCTOBER 26, 1978 AS INSTRUMENT NO. 322135 AND RE-RECORDED FEBRUARY 27, 1979 AS INSTRUMENT NO. 387205, BOTH OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
TOGETHER WITH THAT PORTION OF THE EAST HALF OF GARFIELD AVENUE ADJACENT TO THE WEST LINE OF LOTS 6 AND 7, BLOCK 38, AS VACATED BY RESOLUTION NO. 2007-388, A CERTIFIED COPY OF SAID RESOLUTION HAVING BEEN RECORDED OCTOBER 17, 2007 AS INSTRUMENT NO. 2007-0641263 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
TOGETHER WITH THAT PORTION OF THE NORTH HALF OF FINCH STREET ADJACENT TO THE SOUTH LINE OF LOTS 7 THROUGH 12, BLOCK 38, AS VACATED BY RESOLUTION NO. 2017-194, A CERTIFIED COPY OF SAID RESOLUTION HAVING BEEN RECORDED NOVEMBER 2, 2017 AS INSTRUMENT NO. 2017-0456827 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
PARCEL 2: (APN: 462-185-006)
LOTS 1 THROUGH 6, INCLUSIVE, IN BLOCK 43 OF "PARSON'S SURVEY OF THE TOWN OF WINCHESTER," AS SHOWN BY MAP ON FILE IN BOOK 2, PAGE 11 OF MAPS, RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
TOGETHER WITH THAT PORTION OF THE EAST HALF OF GARFIELD AVENUE ADJACENT TO THE WEST LINE OF LOT 6, AS VACATED BY RESOLUTION NO. 87-218, A CERTIFIED COPY OF SAID RESOLUTION HAVING BEEN RECORDED JULY 17, 1987 AS INSTRUMENT NO. 87-208187 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.
TOGETHER WITH THAT PORTION OF THE SOUTH HALF OF FINCH STREET AS VACATED BY RESOLUTION NO. 2017-194, A CERTIFIED COPY OF SAID RESOLUTION HAVING BEEN RECORDED NOVEMBER 2, 2017 AS INSTRUMENT NO. 2017-0456827 OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

PLOT PLAN
COUNTY OF RIVERSIDE
NO WORRIES! RV AND BOAT STORAGE



LINE DATA table with columns: LINE, BEARING, DISTANCE. Lists 18 lines with their respective bearings and distances.

PARKING STALL TABLE with columns: STALL #, DIMENSIONS, AREA. Lists 223 stalls with their dimensions and total area.



- GENERAL NOTES: 1. NO WORK IN PUBLIC RIGHT-OF-WAY WITHOUT AN ENCROACHMENT PERMIT. 2. OUTDOOR LIGHTING SHALL BE FROM LOW PRESSURE SODIUM LAMPS... 3. THE PROJECT SITE IS RAW UNDEVELOPED LAND... 4. THE PROJECT SITE IS LOCATED WITHIN ZONE "M" AS SHOWN ON FLOOD INSURANCE RATE MAP... 5. PARKING STALLS WILL BE UTILIZED AS GRAVEL INFILTRATION BMP TO MITIGATE FOR WATER QUALITY... 6. DRIVE LINES WILL BE CONSTRUCTED TO MEET DOT REQUIREMENTS... 7. SEE ALTA SURVEY MAP FOR EXISTING EASEMENTS... 8. NO STREET LIGHTS CURRENTLY EXIST ON WILLARD STREET, HADDOCK STREET, AND WINCHESTER ROAD... 9. NO RV/TRAILER WASTE WATER DUMPING IS PROPOSED ON SITE... 10. PROJECT SITE IS LOCATED IN AN AREA OF HIGH LIQUEFACTION AND SUSCEPTIBLE TO SUBSIDENCE... 11. PARKING CALCULATIONS: THE ANTICIPATED NUMBER OF EMPLOYEES IS 2.
CONSTRUCTION NOTES: 1. 10'X10' AREA FOR SIGHT DISTANCE PURPOSES. 2. CONSTRUCT COMMERCIAL DRIVE PER RIVERSIDE COUNTY STD. NO. 207A. 3. CONSTRUCT CURB RAMP PER RIVERSIDE COUNTY STD. NO. 403, CASE "A". 4. CONSTRUCT CURB & GUTTER PER RIVERSIDE COUNTY STD. NO. 200, 6" CURB. 5. RELOCATE EXISTING TRAFFIC SIGNAGE, EQUIPMENT, SIGNALS, LIGHTS. 6. CONSTRUCT 5' MEANDERING SIDEWALK PER RIVERSIDE COUNTY ROAD STD. 404. 7. PROVIDE MINIMUM PAVED UNOBSTRUCTED WIDTH OF 24 FEET FOR FIRE DEPARTMENT VEHICULAR. 8. FIRE APPARATUS ACCESS ROADS SHALL BE PROVIDED WITH A 38 FOOT OUTSIDE TURNING RADIUS AND AS APPROVED BY FIRE DEPARTMENT. 9. PROPOSED AUTOMATIC SLIDING GATE. 10. PROPOSED KEYPAD LOCATION, MINIMUM 30 FEET FROM PUBLIC RIGHT-OF-WAY. 11. PROPOSED 30' LEAD FIELDS AND 100' EXPANSION PER SOILS ENGINEER RECOMMENDATIONS AND COUNTY ENVIRONMENTAL HEALTH REGULATIONS. ALSO SEE DETAIL "E" LEFT HEREON. 12. PROPOSED PREFABRICATED MODULAR FOR OFFICE, SALABLE RV SUPPLIES, COMPUTER ROOM, SECURITY ROOM, WASHING FACILITIES AND STORAGE. COMPLETE WITH FIRE SUPPRESSION SYSTEM, UEG OCCUPANCY 304.1, GROUP II. 13. PROPOSED 10'X10' DRY STORAGE WITH 5" MASONRY WALLS AND METAL TRUSSED ROOF FOR FIRE WOOD STORAGE. 14. PROPOSED ABOVE GROUND PROPANE TANK (499 GALLON TANK). 15. FENCED WATER QUALITY MANAGEMENT PLAN (WQMP) BASIN AREA. 16. PROPOSED "NO PARKING" SIGN, 20FT ON CENTER, PER R26 CAL TRANS TRAFFIC MANUAL. SEE DETAIL "D" LEFT HEREON. 17. PROPOSED DWT/S/SEPTIC TANK FOR SEWAGE DISPOSAL PER COUNTY ENVIRONMENTAL HEALTH REGULATIONS. 18. PROPOSED AIR COMPRESSOR AREA WITH 5" HIGH MASONRY WALL. 19. PROPOSED SOLAR POWERED LUMINAIRES WITH SECURITY CAMERAS ATTACHED. COMPLETE WITH ENVIRONMENTAL CONSTRAINT MAP #22590 WITH SHIELDS AND LOW PRESSURE SODIUM LAMPS. SEE GENERAL NOTE #2. 20. PROPOSED FIRE HYDRANT PER RIVERSIDE COUNTY STD. 701. 21. PROPOSED WATER METER PER RIVERSIDE COUNTY STD. 700. 22. PROPOSED COVERED TRASH AREA PER LANDSCAPE PLANS. 23. EXISTING CATCH BASIN TO BE REPLACED. 24. PROPOSED 3" VINYL TOP ON 5" SPLIT FACE MASONRY WALL (8" HIGH) PER DETAIL B HEREON. 25. EXISTING POWER POLE TO BE REMOVED BY OTHERS. 26. CONSTRUCT 5' SIDEWALK PER RIVERSIDE COUNTY ROAD STD. 401. 27. PROPOSED DRIVE ISLE. SEE DETAIL "A" LEFT HEREON. 28. PROPOSED SIGNAGE PER LANDSCAPE PLANS AND DETAIL "C" LEFT HEREON.

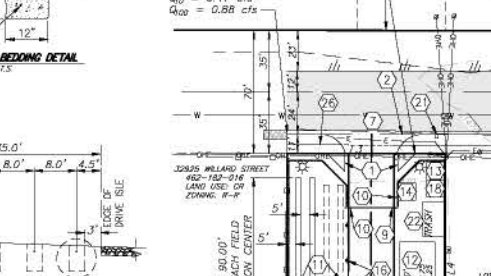
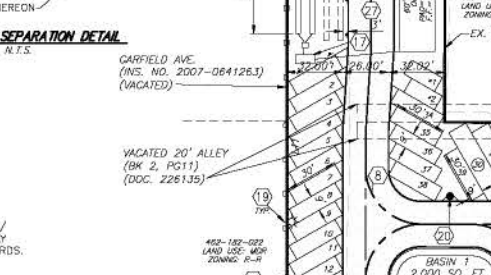
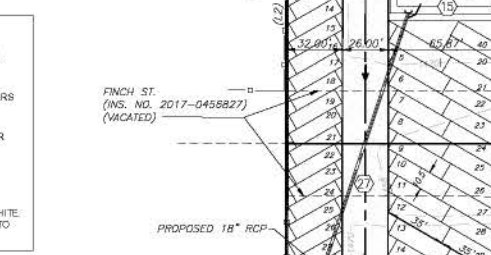
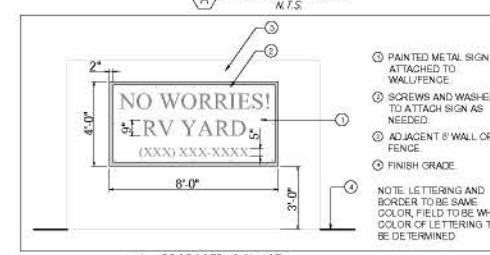
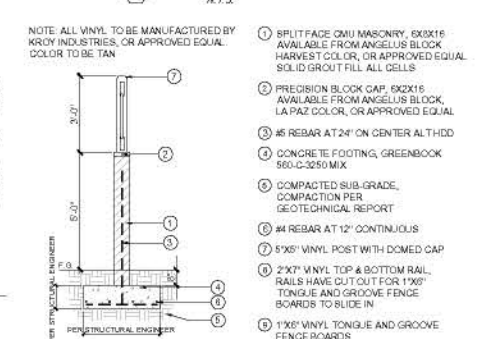
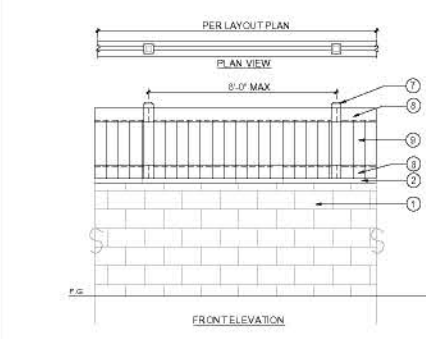


Table with columns: DESCRIPTION OF REVISION, REV. DATE, APP. DATE. Includes a revision table for the drawing.

PREPARED BY: HZAYEN DESIGN GROUP, INC.
360 TWILIGHT COURT
CAMARILLO, CA 93012
PHONE (805) 233-7778

SITE PLAN/ LAND USE PLAN
EXHIBIT "A"
FEBRUARY 2022
PLOT DATE: 3/8/2022
SHEET 1 OF 1



Appendix B

Applicable Noise Regulations

Noise Mitigation Strategies

Many land uses emit noise above state-mandated acceptable levels. The noise emitted from a land use must be mitigated to acceptable levels indoors and outdoors in order for other, more noise-sensitive land uses to locate in proximity to these noise producers. There are a number of ways to mitigate noise and the following policies suggest some possible solutions to noise problems.

Policies:

- N 2.1 Create a County Noise Inventory to identify major noise generators and noise-sensitive land uses, and to establish appropriate noise mitigation strategies. (AI 105)
- N 2.2 Require a qualified acoustical specialist to prepare acoustical studies for proposed noise-sensitive projects within noise impacted areas to mitigate existing noise. (AI 105, 107)
- N 2.3 Mitigate exterior and interior noises to the levels listed in Table N-2 below to the extent feasible, for stationary sources: (AI 105)

**Table N-2:
Stationary Source Land Use Noise Standards¹**

Land Use	Interior Standards	Exterior Standards
<i>Residential</i>		
10:00 p.m. to 7:00 a.m.	40 L _{eq} (10 minute)	45 L _{eq} (10 minute)
7:00 a.m. to 10:00 p.m.	55 L _{eq} (10 minute)	65 L _{eq} (10 minute)

¹ These are only preferred standards; final decision will be made by the Riverside County Planning Department and Office of Public Health.

Noise Producers

Location of Noise Producers

“
Good neighbors keep
their noise to themselves.
”

The communities of Riverside County need a variety of land uses in order to thrive and succeed. These land uses may provide jobs, clean water, ensure safety, ship goods, and ease transportation woes. But they may also emit high levels of noise throughout the day. These noise-producing land uses can complement a community when the noise they emit is properly mitigated. The following policies suggest a series of surveys and analyses to correctly identify the proper noise mitigating procedures in order to promote the continued success of the communities of Riverside County.

Agriculture

One of the major economic thrusts of Riverside County is the agricultural industry. The Riverside County Right-to-Farm Ordinance conserves, protects, and encourages the development, improvement, and continued viability of agricultural land and industries for the long-term production of food and other agricultural products, and for the economic well-being of Riverside County’s residents. The Right-to-Farm Ordinance also attempts to balance the rights of farmers to produce food and other agricultural products with the rights of non-farmers who own,

**ORDINANCE NO. 847
(AS AMENDED THROUGH 847.1)
AN ORDINANCE OF THE COUNTY OF RIVERSIDE AMENDING
ORDINANCE NO. 847 REGULATING NOISE**

The Board of Supervisors of the County of Riverside Ordains as Follows:

Section 1. INTENT. At certain levels, sound becomes noise and may jeopardize the health, safety or general welfare of Riverside County residents and degrade their quality of life. Pursuant to its police power, the Board of Supervisors hereby declares that noise shall be regulated in the manner described herein. This ordinance is intended to establish countywide standards regulating noise. This ordinance is not intended to establish thresholds of significance for the purpose of any analysis required by the California Environmental Quality Act and no such thresholds are hereby established.

Section 2. EXEMPTIONS. Sound emanating from the following sources is exempt from the provisions of this ordinance:

- a. Facilities owned or operated by or for a governmental agency.
- b. Capital improvement projects of a governmental agency.
- c. The maintenance or repair of public properties.
- d. Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile.
- e. Public or private schools and school-sponsored activities
- f. Agricultural operations on land designated Agriculture in the Riverside County General Plan, or land zoned A-1 (Light Agriculture), A-P (Light Agriculture With Poultry), A-2 (Heavy Agriculture), A-D (Agriculture-Dairy) or C/V (Citrus/Vineyard), provided such operations are carried out in a manner consistent with accepted industry standards. This exemption includes, without limitation, sound emanating from all equipment used during such operations, whether stationary or mobile.
- g. Wind Energy Conversion Systems (WECS), provided such systems comply with the WECS noise provisions of Riverside County Ordinance No. 348.
- h. Private construction projects located one-quarter (1/4) of a mile or more from an inhabited dwelling.
- i. Private construction projects located within one-quarter (1/4) of a mile from an inhabited dwelling, provided that:
 1. Construction does not occur between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September; and
 2. Construction does not occur between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May.

Section 5. SOUND LEVEL MEASUREMENT METHODOLOGY. Sound level measurements may be made anywhere within the boundaries of an occupied property. The actual location of a sound level measurement shall be at the discretion of the enforcement officials identified in Section 8. of this ordinance. Sound level measurements shall be made with a sound level meter. Immediately before a measurement is made, the sound level meter shall be calibrated utilizing an acoustical calibrator meeting the standards of the American National Standards Institute. Following a sound level measurement, the calibration of the sound level meter shall be re-verified. Sound level meters and calibration equipment shall be certified annually.

Section 6. SPECIAL SOUND SOURCES STANDARDS. The general sound level standards set forth in Section 4. of this ordinance apply to sound emanating from all sources, including the following special sound sources, and the person creating, or allowing the creation of, the sound is subject to the requirements of that section. The following special sound sources are also subject to the following additional standards, the failure to comply with which constitute separate violations of this ordinance.

- a. Motor Vehicles.
 1. Off-Highway Vehicles.
 - i. No person shall operate an off-highway vehicle unless it is equipped with a USDA qualified spark arrester and a constantly operating and properly maintained muffler. A muffler is not considered constantly operating and properly maintained if it is equipped with a cutout, bypass or similar device.
 - ii. No person shall operate an off-highway vehicle unless the noise emitted by the vehicle is not more than 96 dBA if the vehicle was manufactured on or after January 1, 1986 or is not more than 101 dBA if the vehicle was manufactured before January 1, 1986. For purposes of this subsection, emitted noise shall be measured a distance of twenty (20) inches from the vehicle tailpipe using test procedures established by the Society of Automotive Engineers under Standard J-1287.
 2. Sound Systems. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, between the hours of 10:00 p.m. and 8:00 a.m., such that the sound system is audible to the human ear inside any inhabited dwelling. No person shall operate a motor vehicle sound system, whether affixed to the vehicle or not, at any other time such that the sound system is audible to the human ear at a distance greater than one hundred (100) feet from the vehicle.
- b. Power Tools and Equipment. No person shall operate any power tools or equipment between the hours of 10:00 p.m. and 8:00 a.m. such that the power tools or equipment are audible to the human ear inside an inhabited dwelling other than a dwelling in which the power tools or equipment may be located. No person shall operate any power tools or equipment at any other time such that the power tools

or equipment are audible to the human ear at a distance greater than one hundred (100) feet from the power tools or equipment.

- c. Audio Equipment. No person shall operate any audio equipment, whether portable or not, between the hours of 10:00 p.m. and 8:00 a.m. such that the equipment is audible to the human ear inside an inhabited dwelling other than a dwelling in which the equipment may be located. No person shall operate any audio equipment, whether portable or not, at any other time such that the equipment is audible to the human ear at a distance greater than one hundred (100) feet from the equipment.
- d. Sound Amplifying Equipment and Live Music. No person shall install, use or operate sound amplifying equipment, or perform, or allow to be performed, live music unless such activities comply with the following requirements. To the extent that these requirements conflict with any conditions of approval attached to an underlying land use permit, these requirements shall control.
 - 1. Sound amplifying equipment or live music is prohibited between the hours of 10:00 p.m. and 8:00 a.m.
 - 2. Sound emanating from sound amplifying equipment or live music at any other time shall not be audible to the human ear at a distance greater than two hundred (200) feet from the equipment or music.

Section 7. EXCEPTIONS. Exceptions may be requested from the standards set forth in Sections 4. or 6. of this ordinance and may be characterized as construction-related, single event or continuous events exceptions.

- a. Application and Processing.
 - 1. Construction-Related Exceptions. An application for a construction-related exception shall be made to and considered by the Director of Building and Safety on forms provided by the Building and Safety Department and shall be accompanied by the appropriate filing fee. No public hearing is required.
 - 2. Single Event Exceptions. An application for a single event exception shall be made to and considered by the Planning Director on forms provided by the Planning Department and shall be accompanied by the appropriate filing fee. No public hearing is required.
 - 3. Continuous Events Exceptions. An application for a continuous events exception shall be made to the Planning Director on forms provided by the Planning Department and shall be accompanied by the appropriate filing fee. Upon receipt of an application for a continuous events exception, the Planning Director shall set the matter for public hearing before the Planning Commission, notice of which shall be given as provided in Section 18.26.c. of Riverside County Ordinance No. 348. Notwithstanding the above, an application for a



Appendix C

Measurement Details



















Appendix D

Manufacturer Data Sheets

INGERSOLL RAND

1 Phase - Electrical Vertical Tank Mounted 7.5 hpHP - Air Compressor Stationary Air Compressor, 80 g

Item #4M310 Mfr. Model #2475N7.5-V-230/1
 UNSPSC #40151601 Catalog Page #2564

Country of Origin USA. Country of Origin is subject to change.

This 100% continuous-duty compressor features a totally enclosed belt guard and an automatic StartStop control.



Web Price
\$2,739.81 / each

This item requires special shipping, additional charges may apply.

Qty [Add to Cart](#)

Shipping Pickup

Expected to arrive **Tue, Aug 17.**

Ship to 92101 | [Change](#)

Shipping Weight **600 lbs**

[Ship Availability Terms](#)

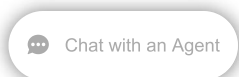
[Add to List](#)

Technical Specs

Item - Air Compressor	Stationary Air Compressor
HP - Air Compressor	7.5 hp
Phase - Electrical	1
Input Voltage - Air Compressor	240V AC
Number of Stages - Air Compressor	2
Pump Location - Air Compressor	Tank Mounted
Style - Air Compressor	Simplex
Lubrication Type - Air compressor	Splash Lubricated
Free Air CFM @ Max. Pressure - Air Compressor	24.0
Tank Style - Air Compressor	Vertical
Tank Size - Air Compressor	80 gal
Compressor Package Type	Base Model
Amps	40
Hz	60
ASME Tank	Yes
(F)NPT Outlet	3/4 in

dBa @ 3 Feet	85.0
Pump RPM	1,500
Pump Oil Capacity	41.6 oz
On Pressure Switch Setting	135
Off Pressure Switch Setting	175 psi
Cylinder Material	Cast Iron
Finish	Powder Coated
Enclosure	NEMA 1
Control	Pressure Switch
Motor Type	Open Dripproof
Overall Length	37 in
Overall Width	28 in
Overall Height	70 in
Standards	ASME, California Code, CSA
Includes	Manual Drain Valve, Motor Starter, Pressure Gauge, Pressure Safety Valve
Item	Electric Air Compressor

Required Accessories





Turn to the experts

Product Data

WeatherMaster® Single Packaged Rooftop Heat Pump Units

3 to 10 Nominal Tons



WeatherMaster®



50HCQ 04, 05, 06, 07, 08, 09, 12
with Puron® (R-410) Refrigerant



MINIMUM - MAXIMUM AIRFLOWS (CFM) COOLING AND ELECTRIC HEAT

UNIT	COOLING			ELECTRIC HEATERS		
	Minimum CFM	Minimum CFM 2-Speed Fan Motor (at High Speed)	Minimum CFM 2-Speed Fan Motor (at Low Speed)	Maximum CFM	Minimum CFM	Maximum CFM
50HCQA04	900	N/A	N/A	1500	900	1500
50HCQA05	1200	N/A	N/A	2000	1200	2000
50HCQA06	1500	N/A	N/A	2500	1500	2500
50HCQA07	1800	N/A	N/A	3000	1800	3000
50HCQD07	1800	1800	1200	3000	1800	3000
50HCQD08	2250	2250	1500	3750	2250*	3750
50HCQD09	2550	2873	1915	4250	2252*	4250
50HCQD12	3000	3380	2253	5000	3000*	5000

* Minimum electric heat CFM exceptions:

UNIT	UNIT VOLTAGE	HEATER kW	UNIT CONFIGURATION	REQUIRED MINIMUM CFM
50HCQD08 50HCQD09	575	17.0	Horizontal or Vertical	2800
		34.0		2350
50HCQD12	230	50.0	Vertical	3550
		50.0	Horizontal	3420
		43.5	Horizontal or Vertical	3040
	575	50.0	Vertical	3150
		33.5	Vertical	3520
		33.5	Horizontal	3420
		26.5	Vertical	3610

SOUND PERFORMANCE

50HCQ UNIT	OUTDOOR SOUND (dB) AT 60 Hz								
	A-Weighted	63	125	250	500	1000	2000	4000	8000
A04	76	51.8	69.0	64.6	67.8	70.7	63.8	60.9	59.0
A05	79	56.1	69.6	68.7	72.5	72.8	68.9	65.0	61.2
A06	79	57.7	66.6	68.7	72.9	74.5	71.1	67.6	62.6
A07	81	86.7	82.7	79.1	78.4	75.4	71.2	67.8	62.9
D07	81	86.7	82.7	79.1	78.4	75.4	71.2	67.8	62.9
D08	83	87.3	81.6	79.7	80.6	79.0	73.5	69.2	66.1
D09	87	61.7	74.7	77.4	82.6	84.9	81.9	78.8	75.9
D12	83	61.0	67.3	75.1	77.7	78.1	75.5	71.2	66.7

LEGEND

dB —Decibel

NOTES:

1. Outdoor sound data is measure in accordance with AHRI standard 270.
2. Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environmental factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.
3. A-weighted sound ratings filter out very high and very low frequencies, to better approximate the response of "average" human ear. A-weighted measurements for Carrier units are taken in accordance with AHRI standard 270.



Appendix E

Project Traffic Study Excerpt

**PROJECT TRIP GENERATION SUMMARY
NO WORRIES! RV AND BOAT STORAGE PROJECT**

LAND USE	SIZE		RATE ¹	ADT	AM PEAK				PM PEAK					
					RATE ¹	SPLIT		VOLUME		RATE ¹	SPLIT		VOLUME	
						IN	OUT	IN	OUT		IN	OUT	IN	OUT
Storage	3.53	Acres	30	106	0.06	50%	50%	3	3	0.09	50%	50%	5	5
TOTAL TRAFFIC GENERATION:				106				3	3				5	5

1 = SANDAG's Not So Brief Guide of Vehicular Traffic Generation Rates.



Appendix F

CadnaA Analysis Data and Results

S210612 No Worries! RV and Boat Storage - Mechanical Equipment - Day

Eilar Associates, Inc.
 210 South Juniper Street, Suite 100
 Escondido, California 92025-4230
 Phone: (760) 738-5570

Date: 10 Mar 2022

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	1000.00
Min. Length of Section (#(Unit,LEN))	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (Schall 03 (1990))	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

Receivers

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height	Coordinates			
			Day	Night	Day	Night	Type	Auto	Noise Type		X	Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)	
R1			50.3	50.3	65.0	0.0				5.00	r	640.18	780.82	5.00
R2			51.6	51.6	65.0	0.0				5.00	r	598.71	849.82	5.00
R3			50.5	50.5	65.0	0.0				5.00	r	726.45	849.51	5.00
R4			59.8	59.8	65.0	0.0				5.00	r	732.84	759.55	5.00

Point Sources

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Height		Coordinates		
			Day (dBA)	Evening (dBA)	Night (dBA)	Type	Value	norm. dB(A)	Day dB(A)	Evening dB(A)	Night dB(A)	R	Area (ft²)		Day (min)	Special (min)	Night (min)				(dB)	(Hz)	(ft)		X (ft)
Compressor			95.3	95.3	95.3	Lw	S2		0.0	0.0	0.0						0.0		(none)	6.00	r	726.87	759.64	6.00	
HVAC			80.5	80.5	80.5	Lw	S1		0.0	0.0	0.0						0.0		(none)	3.50	g	716.30	698.69	15.50	

Barriers

Name	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height	
			left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)
9ft CMU Wall			0.21	0.21				9.00	r
6ft CMU Wall	+		0.21	0.21				6.00	r

Geometry - Barriers

Name	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height		Coordinates			
			left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)
9ft CMU Wall			0.21	0.21				9.00	r	731.77	780.76	9.00	0.00
										732.03	630.02	9.00	0.00
										832.81	629.33	9.00	0.00
										832.63	780.07	9.00	0.00
										982.12	780.18	9.00	0.00
										981.80	280.92	9.00	0.00
										641.58	281.79	9.00	0.00
										642.12	780.78	9.00	0.00
6ft CMU Wall	+		0.21	0.21				6.00	r	721.72	754.60	6.00	0.00
										731.74	754.59	6.00	0.00
										731.49	764.39	6.00	0.00
										721.60	764.43	6.00	0.00

Buildings

Name	M.	ID	RB	Residents	Absorption	Height
						Begin
						(ft)
Office				0		12.00 r

Geometry - Buildings

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)
Office				0		12.00 r	706.61	729.21	12.00	0.00
							726.36	729.08	12.00	0.00
							725.96	669.73	12.00	0.00
							706.47	669.73	12.00	0.00

Sound Level Spectra

Name	ID	Type	1/3 Oktave Spectrum (dB)											Source	
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A		lin
Carrier 50HCQA06 5-ton RTU	S1	Lw			86.7	82.7	79.1	78.4	75.4	71.2	67.8	62.9	80.5	89.3	Manufacturer
Air Compressor (85 @ 3')	S2	Lw (c)			76.8	76.8	78.8	82.8	88.8	91.8	85.8	76.8	95.3	94.9	Measurement

S210612 No Worries! RV and Boat Storage - Mechanical Equipment - Night

Eilar Associates, Inc.
 210 South Juniper Street, Suite 100
 Escondido, California 92025-4230
 Phone: (760) 738-5570

Date: 10 Mar 2022

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	1000.00
Min. Length of Section (#(Unit,LEN))	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (Schall 03 (1990))	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

Receivers

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height	Coordinates			
			Day	Night	Day	Night	Type	Auto	Noise Type		X	Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)	
R1			30.6	30.6	45.0	0.0				5.00	r	640.18	780.82	5.00
R2			33.3	33.3	45.0	0.0				5.00	r	598.71	849.82	5.00
R3			32.5	32.5	45.0	0.0				5.00	r	726.45	849.51	5.00
R4			34.1	34.1	45.0	0.0				5.00	r	732.84	759.55	5.00

Point Sources

Name	M.	ID	Result. PWL			Lw / Li			Correction			Sound Reduction		Attenuation	Operating Time			K0	Freq.	Direct.	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Evening	Night	R	Area		Day	Special	Night				X	Y	Z		
			(dBA)	(dBA)	(dBA)															(ft)		(ft)	(ft)	(ft)	
HVAC			80.5	80.5	80.5	Lw	S1		0.0	0.0	0.0						0.0		(none)	3.50	g	716.30	698.69	15.50	

Barriers

Name	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height	
			left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)
9ft CMU Wall			0.21	0.21				9.00	r
6ft CMU Wall	+		0.21	0.21				6.00	r

Geometry - Barriers

Name	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height		Coordinates			
			left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)
9ft CMU Wall			0.21	0.21				9.00	r	731.77	780.76	9.00	0.00
										732.03	630.02	9.00	0.00
										832.81	629.33	9.00	0.00
										832.63	780.07	9.00	0.00
										982.12	780.18	9.00	0.00
										981.80	280.92	9.00	0.00
										641.58	281.79	9.00	0.00
										642.12	780.78	9.00	0.00
6ft CMU Wall	+		0.21	0.21				6.00	r	721.72	754.60	6.00	0.00
										731.74	754.59	6.00	0.00
										731.49	764.39	6.00	0.00
										721.60	764.43	6.00	0.00

Buildings

Name	M.	ID	RB	Residents	Absorption	Height
						Begin
						(ft)
Office				0		12.00 r

Geometry - Buildings

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)
Office				0		12.00 r	706.61	729.21	12.00	0.00
							726.36	729.08	12.00	0.00
							725.96	669.73	12.00	0.00
							706.47	669.73	12.00	0.00

Sound Level Spectra

Name	ID	Type	1/3 Oktave Spectrum (dB)											Source	
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A		lin
Carrier 50HCQA06 5-ton RTU	S1	Lw			86.7	82.7	79.1	78.4	75.4	71.2	67.8	62.9	80.5	89.3	Manufacturer
Air Compressor (85 @ 3')	S2	Lw (c)			76.8	76.8	78.8	82.8	88.8	91.8	85.8	76.8	95.3	94.9	Measurement

S210612 No Worries! RV and Boat Storage - Existing Traffic

Eilar Associates, Inc.

210 South Juniper Street, Suite 100
 Escondido, California 92025-4230
 Phone: (760) 738-5570

Date: 11 Aug 2021

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius #(Unit,LEN)	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section #(Unit,LEN)	1000.00
Min. Length of Section #(Unit,LEN)	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature #(Unit,TEMP)	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. #(Unit,SPEED)	3.0
Roads (TNM)	
Railways (Schall 03 (1990))	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

Receivers

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height	Coordinates			
			Day	Night	Day	Night	Type	Auto	Noise Type		X	Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)	
R5			50.5	-77.1	0.0	0.0		x	Total	5.00	r	636.12	780.71	5.00
R6			54.4	-75.0	0.0	0.0		x	Total	5.00	r	782.14	780.22	5.00
R7			54.4	-75.0	0.0	0.0		x	Total	5.00	r	795.83	849.47	5.00
R8			64.8	-67.8	0.0	0.0		x	Total	5.00	r	1088.57	856.17	5.00
R9			61.5	-70.2	0.0	0.0		x	Total	5.00	r	1128.21	427.77	5.00
R10			63.7	-68.7	0.0	0.0		x	Total	5.00	r	968.68	179.04	5.00
R11			50.8	-76.9	0.0	0.0		x	Total	5.00	r	664.70	215.49	5.00
R12			50.4	-77.1	0.0	0.0		x	Total	5.00	r	632.29	278.51	5.00

Roads

Name	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection			
			Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Dstro	Type		Drefl	Hbuild	Dist.	
			(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(mph)	(mph)		(dB)		(%)	(dB)	(ft)	(ft)	
Winchester Current	+		66.0	0.0	0.0			1472.0	0.0	0.0	9.5	0.0	0.0	40		3.5	0.0	1	0.0	0.0			

Geometry - Roads

Name	Height		Coordinates				Dist	LSlope
	Begin	End	x	y	z	Ground	(ft)	(%)
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		
Winchester Current	0.00	r	1032.38	67.01	0.00	0.00		
			1031.68	243.98	0.00	0.00		
			1033.76	815.08	0.00	0.00		
			1033.03	999.12	0.00	0.00		

Barriers

Name	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height	
			left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)
9ft CMU Wall	-		0.21	0.21				9.00	r
6ft CMU Wall	-		0.21	0.21				6.00	r

Geometry - Barriers

Name	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height		Coordinates			
			left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)
9ft CMU Wall	-		0.21	0.21				9.00	r	731.77	780.76	9.00	0.00
										732.03	630.02	9.00	0.00
										832.81	629.33	9.00	0.00
										832.63	780.07	9.00	0.00
										982.12	780.18	9.00	0.00
										981.80	280.92	9.00	0.00
										641.58	281.79	9.00	0.00
										642.12	780.78	9.00	0.00
6ft CMU Wall	-		0.21	0.21				6.00	r	721.31	745.46	6.00	0.00
										731.34	745.46	6.00	0.00
										731.08	755.25	6.00	0.00
										721.19	755.29	6.00	0.00

Buildings

Name	M.	ID	RB	Residents	Absorption	Height
						Begin
						(ft)
Office	-			0		12.00 r

Geometry - Buildings

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)
Office	-			0		12.00 r	647.99	770.91	12.00	0.00
							659.89	771.05	12.00	0.00
							660.02	738.92	12.00	0.00
							647.31	738.92	12.00	0.00

S210612 No Worries! RV and Boat Storage - Existing + Project-Generated Traffic

Eilar Associates, Inc.

210 South Juniper Street, Suite 100

Escondido, California 92025-4230

Phone: (760) 738-5570

Date: 11 Aug 2021

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.00
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	1000.00
Min. Length of Section (#(Unit,LEN))	1.00
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	6.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	0
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Excl. Ground Att. over Barrier Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (Schall 03 (1990))	
Strictly acc. to Schall 03 / Schall-Transrapid	
Aircraft (???)	
Strictly acc. to AzB	

Receivers

Name	M.	ID	Level Lr		Limit. Value		Land Use			Height	Coordinates			
			Day	Night	Day	Night	Type	Auto	Noise Type		X	Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)				(ft)	(ft)	(ft)	(ft)	
R5			50.7	-71.6	0.0	0.0		x	Total	5.00	r	636.12	780.71	5.00
R6			54.7	-65.3	0.0	0.0		x	Total	5.00	r	782.14	780.22	5.00
R7			55.5	-65.1	0.0	0.0		x	Total	5.00	r	795.83	849.47	5.00
R8			64.9	-64.4	0.0	0.0		x	Total	5.00	r	1088.57	856.17	5.00
R9			61.6	-67.3	0.0	0.0		x	Total	5.00	r	1128.21	427.77	5.00
R10			63.8	-65.8	0.0	0.0		x	Total	5.00	r	968.68	179.04	5.00
R11			49.5	-75.5	0.0	0.0		x	Total	5.00	r	664.70	215.49	5.00
R12			47.5	-76.3	0.0	0.0		x	Total	5.00	r	632.29	278.51	5.00

Roads

Name	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
			Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Dstro	Type		Drefl	Hbuild	Dist.
			(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(mph)	(mph)		(dB)		(%)	(dB)	(ft)	(ft)
PG Traffic Winchester	+		48.7	0.0	0.0			10.0	0.0	0.0	50.0	0.0	0.0	35		3.5	0.0	1	0.0	0.0		
Winchester Current	+		66.0	0.0	0.0			1472.0	0.0	0.0	9.5	0.0	0.0	40		3.5	0.0	1	0.0	0.0		
PG Traffic Willard	+		48.7	0.0	0.0			10.0	0.0	0.0	50.0	0.0	0.0	35		3.5	0.0	1	0.0	0.0		

Geometry - Roads

Name	Height		Coordinates				Dist (ft)	LSlope (%)
	Begin	End	x	y	z	Ground		
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		
PG Traffic Winchester	0.00	r	1033.14	37.39	0.00	0.00		
			1033.94	807.98	0.00	0.00		
			1032.86	998.76	0.00	0.00		
Winchester Current	0.00	r	1032.38	67.01	0.00	0.00		
			1031.68	243.98	0.00	0.00		
			1033.76	815.08	0.00	0.00		
			1033.03	999.12	0.00	0.00		
PG Traffic Willard	0.00	r	1032.66	815.26	0.00	0.00		
			687.91	815.11	0.00	0.00		

Barriers

Name	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height	
			left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)
9ft CMU Wall	+		0.21	0.21				9.00	r
6ft CMU Wall	+		0.21	0.21				6.00	r

Geometry - Barriers

Name	M.	ID	Absorption		Z-Ext. (ft)	Cantilever		Height		Coordinates			
			left	right		horz. (ft)	vert. (ft)	Begin (ft)	End (ft)	x (ft)	y (ft)	z (ft)	Ground (ft)
9ft CMU Wall	+		0.21	0.21				9.00	r	731.77	780.76	9.00	0.00
										732.03	630.02	9.00	0.00
										832.81	629.33	9.00	0.00
										832.63	780.07	9.00	0.00
										982.12	780.18	9.00	0.00
										981.80	280.92	9.00	0.00
										641.58	281.79	9.00	0.00
										642.12	780.78	9.00	0.00
6ft CMU Wall	+		0.21	0.21				6.00	r	721.31	745.46	6.00	0.00
										731.34	745.46	6.00	0.00
										731.08	755.25	6.00	0.00
										721.19	755.29	6.00	0.00

Buildings

Name	M.	ID	RB	Residents	Absorption	Height
						Begin
						(ft)
Office	+			0		12.00 r

Geometry - Buildings

Name	M.	ID	RB	Residents	Absorption	Height	Coordinates			
						Begin	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)
Office	+			0		12.00 r	647.99	770.91	12.00	0.00
							659.89	771.05	12.00	0.00
							660.02	738.92	12.00	0.00
							647.31	738.92	12.00	0.00



Appendix G

Construction Noise and Vibration Calculation Results

Noise Attenuation by Distance Calculation

Job: No Worries! RV and Box
Job #: S210612
Date: 8/11/2021
Source: Front Loader
Phase: Grading and Utilities

Noise Source

Noise Level (dBA) 72 at 50 feet

Distances

Source Elevation 0 feet at 5 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 170 feet

Path Calculation

Source to Receiver Direct Path Distance: 170 feet

Sound Pressure Level

61.4 at 170 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 57.4

Summation

Number of Sources: 4
Level during 8 hour day: 66.3

Noise Attenuation by Distance Calculation

Job: No Worries! RV and Boat Storage
Job #: S210612
Date: 8/11/2021
Source: Excavator
Receiver: Grading and Utilities

Noise Source

Noise Level (dBA) 75 at 50 feet

Distances

Source Elevation: 0 feet at 5 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 170 feet

Path Calculation

Source to Receiver Direct Path Distance: 170 feet

Sound Pressure Level

64.4 at 170 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 60.4

Noise Attenuation by Distance Calculation

Job: No Worries! RV and Boat Storage
Job #: S210612
Date: 8/11/2021
Source: **Backhoe**
Receiver: Grading and Utilities

Noise Source

Noise Level (dBA) 74 at 50 feet

Distances

Source Elevation: 0 feet at 5 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 170 feet

Path Calculation

Source to Receiver Direct Path Distance: 170 feet

Sound Pressure Level

63.4 at 170 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 59.4

Noise Attenuation by Distance Calculation

Job: No Worries! RV and Boat Storage
Job #: S210612
Date: 8/11/2021
Source: **Water Truck**
Receiver: Grading and Utilities

Noise Source

Noise Level (dBA) 77 at 50 feet

Distances

Source Elevation: 0 feet at 5 feet above grade
Receiver Elevation: 0 feet at 5 feet above grade
Source to Receiver Distance: 170 feet

Path Calculation

Source to Receiver Direct Path Distance: 170 feet

Sound Pressure Level

66.4 at 170 feet
Hours of Use: 8
Duty Cycle (%): 40
Level During 8 Hour day: 62.4

Construction Vibration Calculation

Job: No Worries!
Job #: S210612
Date: 8/12/2021
Source 1: Vibratory Roller
Receiver: West

Vibration Source
Vibration Level (PPV, in/sec) <u>0.21</u> at <u>25</u> feet

Path Calculation
Source to Receiver Direct Path Distance: <u>15</u> feet

Vibration Level (PPV, in/sec)	<u>0.452</u>	at	<u>15</u>	feet
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Path Calculation
Source to Receiver Direct Path Distance: <u>75</u> feet

Vibration Level (PPV, in/sec)	<u>0.040</u>	at	<u>75</u>	feet
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Construction Vibration Calculation

Job: **No Worries!**
Job #: **S210612**
Date: **8/12/2021**
Source 1: **Excavator**
Receiver: **West**

Vibration Source

Vibration Level (PPV, in/sec) 0.003 at 25 feet

Path Calculation

Source to Receiver Direct Path Distance: 10 feet

Vibration Level (PPV, in/sec) 0.012 at 10 feet
