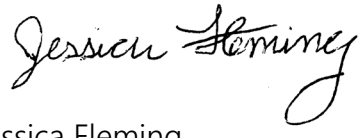
RECON

Noise Analysis for the Santee Auto Center Project Santee, California

Prepared for
Cameron Brothers
10580 Prospect Avenue
Santee, CA 92071

Prepared by
RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108
P 619.308.9333

RECON Number 9999
August 8, 2023



Jessica Fleming
Senior Noise Specialist

TABLE OF CONTENTS

FIGURES

TABLE OF CONTENTS (cont.)

FIGURES (cont.)

TABLES

ATTACHMENTS

Acronyms and Abbreviations

ADA	Americans with Disabilities Act
APN	Assessor's Parcel Number
Caltrans	California Department of Transportation
City	City of Santee
CNEL	community noise equivalent level
CU	condensing units
dB	decibel
dB(A)	A-weighted decibel
EV	electric vehicle
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
Hz	hertz
L_{eq}	one-hour equivalent noise level
L_{pw}	sound power level
project	Santee Auto Center Project
RTU	rooftop units
SR-52	State Route 52

Executive Summary

The Santee Auto Center Project (project) site is located the southeast corner of Mission Gorge Road and Cottonwood Avenue intersection on approximately 13.1 acres (Assessor's Parcel Number [APN] 384-091-01, -13, and -14), located in the city of Santee, California, north of State Route 52. The project site is accessible via Cottonwood Avenue and Mission Gorge Road. The project site is currently undeveloped.

The project would construct a 33,974-square-foot auto sales and service building and a 2,549-square-foot detail bay on Parcel A (APN 384-091-14), a 33,112-square-foot auto sales and service building on Parcel B (APN 384-091-01), and a 5,400-square-foot self-service car wash and 16,405-square-foot body shop on Parcel C (APN 384-091-13).

This report discusses potential noise impacts from the construction and operation of the project. The potential for noise to impact adjacent receivers from future on-site sources and construction activity was assessed in order to determine if the project would comply with noise standards established in the City of Santee (City) Noise Element and Municipal Code. A summary of the findings is provided below.

Construction Noise

Project construction noise would be generated by diesel engine-driven construction equipment used for site preparation and grading, rock breaking and processing, building construction, loading, unloading, and placing materials and paving. Residential uses are located south, east, and west of the project site and commercial uses are located north of the project site. The Noise Element defines noise sensitive areas as rear yard areas on single-family residences and ground floor common areas and private patio areas for multi-family residences. Noise levels associated with the rock processing, grading, building, and paving for the project were calculated at the property lines of the surrounding properties. As calculated in this analysis, construction noise levels are not anticipated to exceed 75 A-weighted decibels one-hour equivalent noise level [dB(A) L_{eq}] at the property lines of the adjacent residential uses, and therefore would not exceed 75 dB(A) L_{eq} at the noise sensitive areas. In accordance with City Municipal Code Section 5.04.090, construction activities would not occur before 7:00 a.m. or after 7:00 p.m. on Mondays through Saturdays and would not occur at any time on Sundays and holidays. Although the adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be temporary (one year). Additionally, as required by the City Municipal Code, a notice would be provided to all owners and occupants within 300 feet of the project site if the construction equipment has a manufacturer's noise rating of 85 dB and operates at a specific location for 10 consecutive workdays. Because on-site rock crushing may occur and the noise levels calculated in this analysis are based on the assumption that the stationary rock crusher would be located a certain distance away from the adjacent residential property lines, Mitigation Measure NOISE-1 would be required. Mitigation includes locating rock crushing 165 feet from property lines, limiting construction to daytime hours, and implementing other construction best management practices as detailed in this analysis. With

implementation of Mitigation Measure NOISE-1, impacts associated with temporary increases in noise during construction would be less than significant.

On-site Generated Noise

The noise sources on the project site after completion of construction would include rooftop mechanical ventilation equipment on the auto dealership and body shop buildings, car wash blowers, car wash vacuums, and the auto service departments and body shop. In accordance with the Noise Element of the General Plan, the noise level threshold is 65 dB(A) L_{eq} at the property line. As calculated in this analysis, at the adjacent residential uses, peak hour daytime operational noise levels would be 58 dB(A) L_{eq} or less and nighttime operational noise levels would be 45 dB(A) L_{eq} or less. At the adjacent commercial uses, peak hour daytime operational noise levels would be 57 dB(A) L_{eq} or less and nighttime operational noise levels would be 42 dB(A) L_{eq} or less. Due to the existing ambient noise levels in the vicinity of the project site that are dominated by vehicle traffic on Mission Gorge Road and because car wash dryers, vacuums, service department, and auto body shop would not be operational during the nighttime hours, the property line noise levels generated by the project are not considered "disturbing, excessive or offensive." Nighttime noise levels due to rooftop mechanical equipment would range from 38 to 45 dB(A) L_{eq}, which is not considered louder than the average conversational noise level.

To ensure that noise levels do not exceed those calculated in this analysis, Mitigation Measure NOISE-2 would be required. Mitigation includes constructing a 6-foot noise barrier on the property boundaries, noise specification requirements for car wash blower system and vacuums, and limiting car wash operation to the daytime hours as detailed in this analysis. With implementation of Mitigation Measure NOISE-2, operational noise levels are not anticipated to violate the City's Municipal Code. Operational noise impacts would be less than significant.

Vehicle Traffic Noise

The project would increase traffic volumes on local roadways. However, the project would not substantially alter the vehicle classifications mix on local or regional roadways, nor would the project alter the speed on an existing roadway or create a new roadway. Thus, the primary factor affecting off-site noise levels would be increased traffic volumes. A substantial noise increase is defined as an increase of 3 dB above existing conditions. As calculated in this analysis, off-site noise level increases due to the project would be less than 3 dB and would not be perceptible. Therefore, impacts associated with off-site vehicle noise would be less than significant.

1.0 Introduction

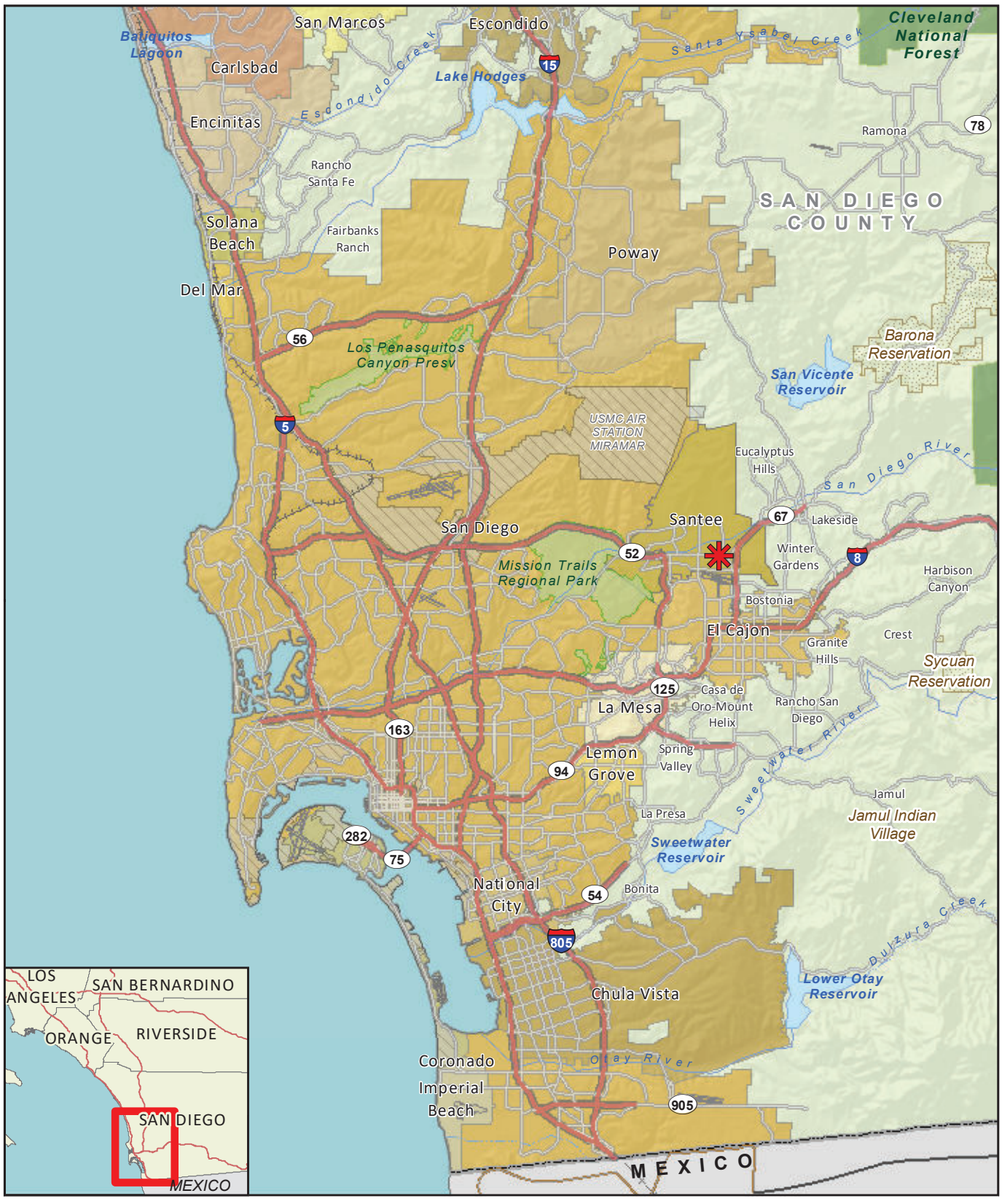
1.1 Project Description

The Santee Auto Center Project (project) site is located the southeast corner of Mission Gorge Road and Cottonwood Avenue intersection on approximately 13.1 acres (Assessor's Parcel Number [APN] 384-091-01, -13, and -14), located in the city of Santee, California, north of State Route 52 (SR-52). The project site is accessible via Cottonwood Avenue and Mission Gorge Road. The project site is currently undeveloped. Figure 1 shows the project's regional location. Figure 2 shows an aerial photograph of the project site and vicinity. Figure 3 shows the proposed site plan.

On Parcel A (APN 384-091-14), the project would construct a 33,974-square-foot auto dealership consisting of auto sales and service and a 2,549-square-foot detail bay which can hold six vehicles. The two-level, 33,974-square-foot, auto sales and service building would consist of a sales and showrooms area, parts department, service department, and administrative office. Level one would total 30,992 square feet and level two would solely consist of parts storage and total 2,549 square feet. Parcel A would have approximately 100 employees and hours of operation would be 7 a.m. to 9 p.m. Monday through Sunday. Parcel A would include 358 parking spaces, which exceeds the required 93 spaces specified in 13.24.040 of the City Municipal Code. Of the 358 parking spaces, four spaces would be Americans with Disabilities Act (ADA) accessible, 12 spaces would be clean air vehicle spaces, and nine spaces would be electric vehicle (EV) spaces. One two-capacity bicycle rack would also be provided. Motorcycle parking would also be provided per City Municipal Code Section 13.24.

On Parcel B (APN 384-091-01), the project would construct a second auto dealership consisting of a 33,112-square-foot auto sales and service building. Similar to Parcel A, the two-level 33,112-square-foot auto sales and service building would consist of a sales and showrooms area, parts department, service department, and administrative office. Level one would total 30,015 square feet and level two would solely consist of parts and total 3,097 square feet. Parcel B would have approximately 100 employees and hours of operation would be 7 a.m. to 9 p.m. Monday through Sunday. Parcel B would also include 218 parking spaces, which exceeds the required 84 spaces specified in 13.24.040 of the City Municipal Code. Of the 218 parking spaces, four spaces would be ADA accessible, 12 spaces would be clean air vehicle spaces, and nine spaces would be EV spaces. One two-capacity bicycle rack would also be provided. Motorcycle parking would also be provided per City Municipal Code Section 13.24.

On Parcel C (APN 384-091-13), the project would construct a 5,400-square-foot self-service car wash and a 16,405-square-foot body shop. The 16,405-square-foot body shop would consist of a customer reception area, parts department, body shop, paint booths, reception canopy and general office. The proposed carwash on Parcel C would have approximately four employees and hours of operation would be 7 a.m. to 7 p.m. Monday through Saturday. The proposed body shop on Parcel C would have approximately 23 employees and hours of operation would be 8 a.m. to 5:30 p.m. Monday through Friday. The project proposes 112 parking spaces within Parcel C, which exceeds the required 57 spaces specified in 13.24.040 of the City Municipal Code. Of the 112 parking spaces, three spaces would be ADA accessible, nine spaces would be clean air vehicle spaces, and six would be EV spaces. Two two-capacity bicycle racks would also be provided.



Project Location

RECON

M:\JOBS5\9999\common_gis\fig1.mxd 12/06/2022 bma

FIGURE 1
Regional Location

Image Source: NearMap (flown April 2022)

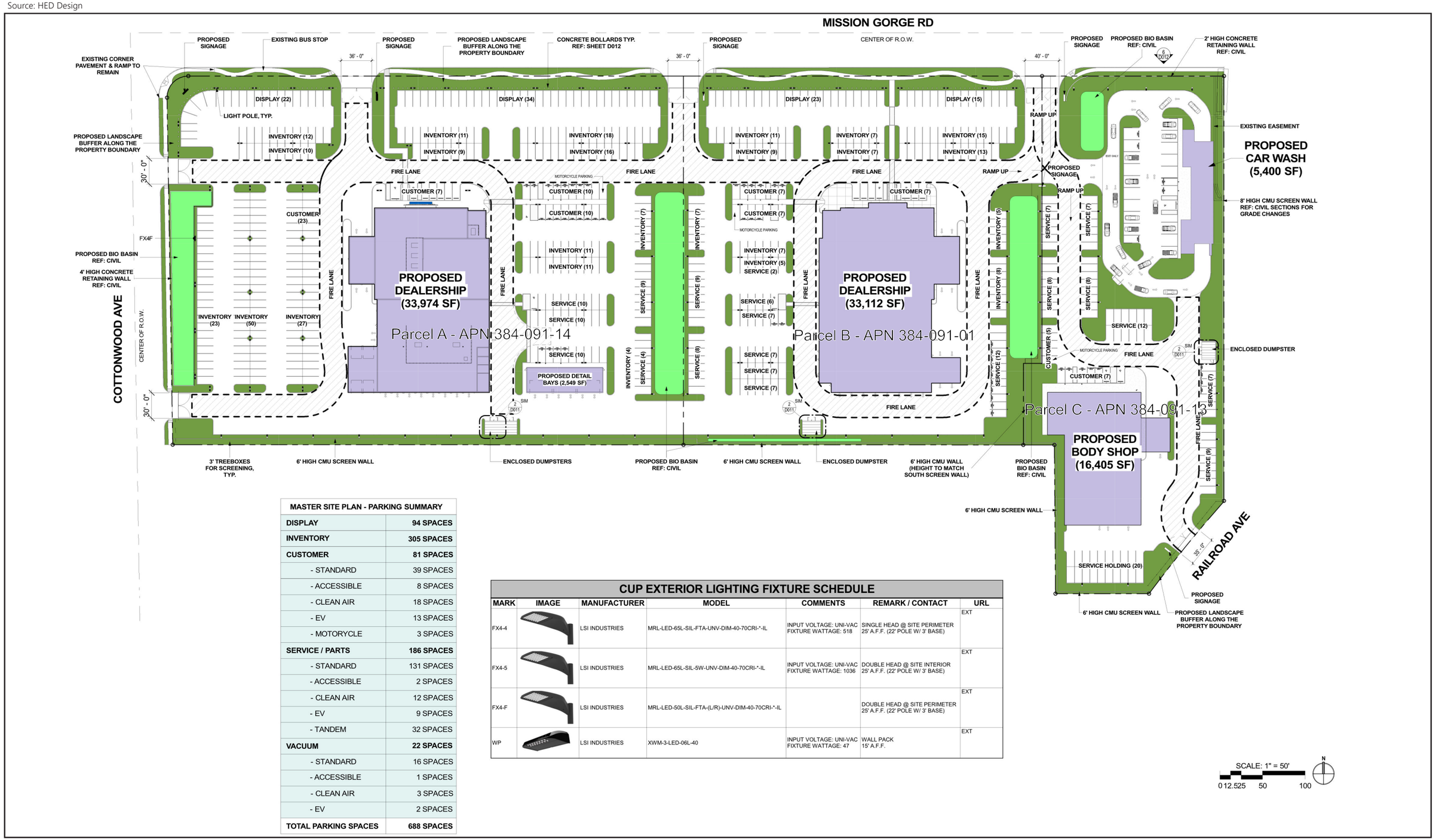
Project Boundary

FIGURE 2
Project Location on Aerial Photograph

RECON

M:\JOBS5\9999\common_gis\fig2_nos.mxd 12/06/2022 bma

Source: HED Design



MASTER SITE PLAN - PARKING SUMMARY	
DISPLAY	**94 SPACES**
INVENTORY	**305 SPACES**
CUSTOMER	**81 SPACES**
- STANDARD	39 SPACES
- ACCESSIBLE	8 SPACES
- CLEAN AIR	18 SPACES
- EV	13 SPACES
- MOTORYCLE	3 SPACES
SERVICE / PARTS	**186 SPACES**
- STANDARD	131 SPACES
- ACCESSIBLE	2 SPACES
- CLEAN AIR	12 SPACES
- EV	9 SPACES
- TANDEM	32 SPACES
VACUUM	**22 SPACES**
- STANDARD	16 SPACES
- ACCESSIBLE	1 SPACES
- CLEAN AIR	3 SPACES
- EV	2 SPACES
TOTAL PARKING SPACES	**688 SPACES**

CUP EXTERIOR LIGHTING FIXTURE SCHEDULE

MARK	IMAGE	MANUFACTURER	MODEL	COMMENTS	REMARK / CONTACT	URL
FX4-4		LSI INDUSTRIES	MRL-LED-65L-SIL-FTA-UNV-DIM-40-70CRI-*-IL	INPUT VOLTAGE: UNI-VAC FIXTURE WATTAGE: 518	SINGLE HEAD @ SITE PERIMETER 25' A.F.F. (22' POLE W/ 3' BASE)	EXT
FX4-5		LSI INDUSTRIES	MRL-LED-65L-SIL-5W-UNV-DIM-40-70CRI-*-IL	INPUT VOLTAGE: UNI-VAC FIXTURE WATTAGE: 1036	DOUBLE HEAD @ SITE INTERIOR 25' A.F.F. (22' POLE W/ 3' BASE)	EXT
FX4-F		LSI INDUSTRIES	MRL-LED-50L-SIL-FTA-(L/R)-UNV-DIM-40-70CRI-*-IL		DOUBLE HEAD @ SITE PERIMETER 25' A.F.F. (22' POLE W/ 3' BASE)	EXT
WP		LSI INDUSTRIES	XWM-3-LED-06L-40	INPUT VOLTAGE: UNI-VAC FIXTURE WATTAGE: 47	WALL PACK 15' A.F.F.	EXT

RECON

M:\JOBS5\9999\nos\graphics\fig3_nos.afdesign 05/04/23 bma

FIGURE 3
Site Plan

Screening

Parking lot screening would be constructed in accordance with City Municipal Code 13.24.030.A.8. The project would construct a six-foot-high screen wall along the perimeter of all three parcels. The masonry wall would be stepped up to eight feet along the eastern project boundary 50 feet south of Mission Gorge Road and 50 feet north of Railroad Avenue. Additionally, the project proposes a landscape buffer along the property boundary with a curved sidewalk along Mission Gorge Road. In addition to the six-foot-high screen wall along the southern edge of the property, the project would include three-foot tree boxes to screen the project from the adjacent residential homes.

Site Access

All three parcels can be accessed within the project boundaries. All access points from outside the project boundaries are secured with a two-door swing gate. The project site is accessible via two driveways on Cottonwood Avenue, three driveways on Mission Gorge Road, and one driveway on Railroad Avenue.

Security Lighting and Cameras

The project site would be well lit to provide convenience and security at any time of day. All project lighting would be implemented consistent with applicable security and Municipal Code requirements.

1.2 Fundamentals of Noise and Vibration

1.2.1 Definition and Measurement of Noise

Sound levels are described in units called the decibel (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease.

Additionally, in technical terms, sound levels are described as either a "sound power level" or a "sound pressure level," which while commonly confused, are two distinct characteristics of sound. Both share the same unit of measure, the dB. However, sound power, expressed as L_{pw}, is the energy converted into sound by the source. The L_{pw} is used to estimate how far a noise will travel and to predict the sound levels at various distances from the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers such as an eardrum or microphone and is the sound pressure level. Noise measurement instruments only measure sound pressure, and noise level limits used in standards are generally sound pressure levels.

The human ear is not equally sensitive to all frequencies within the sound spectrum. To accommodate this phenomenon, the A-scale, which approximates the frequency response of the average young ear when listening to most ordinary everyday sounds, was devised. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Therefore, the "A-weighted" noise scale is used for

measurements and standards involving the human perception of noise. Noise levels using A-weighted measurements are designated with the notation dB(A).

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this study are the one-hour equivalent noise level (L_{eq}), the community noise equivalent level (CNEL), and the sound exposure level. The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional 5 dB(A) penalty to noise occurring during evening hours, between 7:00 p.m. and 10:00 p.m., and an additional 10 dB(A) penalty is added to noise occurring during the night, between 10:00 p.m. and 7:00 a.m. These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night. Similar to the CNEL, the day-night noise level (L_{dn}) adds a 10 dB(A) penalty to nighttime noise but does not add a penalty to evening noise. By definition, L_{dn} is always less than or equal to CNEL, and the two descriptors usually agree within one decibel. In the context of noise sources discussed in this analysis, L_{dn} and CNEL can be considered synonymous and functionally interchangeable. The sound exposure level is a noise level over a stated period of time or event and normalized to one second. Sound from a small, localized source (approximating a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dB(A) for each doubling of the distance.

Traffic noise is not a single, stationary point source of sound. The movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point when viewed over some time interval. The drop-off rate for a line source is 3 dB(A) for each doubling of distance.

The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site (such as parking lots or smooth bodies of water) receives no additional ground attenuation, and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. A soft site (such as soft dirt, grass, or scattered bushes and trees) receives an additional ground attenuation value of 1.5 dB(A) per doubling of distance. Thus, a point source over a soft site would attenuate at 7.5 dB(A) per doubling of distance.

Human perception of noise has no simple correlation with acoustical energy. A change in noise levels is generally perceived as follows: 3 dB(A) barely perceptible, 5 dB(A) readily perceptible, and 10 dB(A) perceived as a doubling or halving of noise (California Department of Transportation 2013).

1.2.2 Definition and Measurement of Vibration

Vibration consists of energy waves transmitted through solid material (Federal Transit Administration 2006). Groundborne vibration propagates from the source through the ground to adjacent buildings by surface waves. Vibration may be composed of a single pulse, a series of pulses, or a continuous oscillatory motion. The frequency of a vibrating object describes how rapidly it is oscillating, measured in hertz (Hz). The normal frequency range of most groundborne vibration that can be felt generally starts from a low frequency of less than 1 Hz to a high of about 200 Hz (Federal Transit Administration 2018).

Vibration energy spreads out as it travels through the ground, causing the vibration amplitude to decrease with distance away from the source. Instantaneous groundborne vibration is measured by its peak particle velocity. The peak particle velocity is normally described in inches per second. Excessive groundborne vibration has the potential to result in structural damage.

Continued vibration of building components can also take the form of an audible, low-frequency, rumbling noise, which is referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hz), or when foundations or utilities, such as sewer and water pipes, connect the structure and the vibration source.

2.0 Applicable Standards

2.1 City of Santee General Plan

The City of Santee (City) General Plan includes various goals, objectives, and policies related to noise standards and protections against excessive noise exposure, including the following:

Objective 1.0. Control noise from sources adjacent to residential, institutional, and other noise-sensitive receptors.

- Policy 1.1: The City shall support a coordinated program to protect and improve the acoustical environment of the City including development review for new public and private development and code compliance for existing development.
- Policy 1.2: The City shall utilize noise studies and noise contour maps when evaluating development proposals during the discretionary review process.
- Policy 1.4: The City shall promote alternative sound attenuation measures rather than traditional wall barrier wherever feasible; these may include glass or polycarbonate walls, berms, landscaping, and the siting of noise-sensitive uses on a parcel away from the roadway or other noise source.
- Policy 1.5: The City shall review future projects with particular scrutiny regarding the reduction of unnecessary noise near noise-sensitive areas such as hospitals, schools, parks, etc.

Objective 2.0. Ensure that future developments will be constructed to minimize interior and exterior noise levels.

- Policy 2.1: The City shall adhere to planning guidelines and building codes which include noise control for the exterior and interior living space of all new residential developments within noise impacted areas.
- Policy 2.2: The City should require new development to mitigate noise impacts to existing uses resulting from new development when: 1) such development adds traffic to existing City

streets that necessitates the widening of the street; and 2) the additional traffic generated by new development causes the noise standard or significance thresholds to be exceeded.

- Policy 2.3: The City should not require new development to mitigate noise impacts to existing uses when new development only adds traffic already anticipated by the City's General Plan to an existing street but does not necessitate widening of that street.

The Noise Element also provides guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories (Table 1). Normally acceptable noise levels are defined as satisfactory, based on the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements. Conditionally acceptable noise levels indicate that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features have been included in the design. Conventional construction with closed windows and fresh air supply systems or air conditioning will normally suffice. The City's General Plan states that these compatibility guidelines are not prohibitive but should be used as a guide and a resource (City of Santee 2003).

The Noise Element further states that when new development may result in the exposure of existing or future noise-sensitive uses to noise levels in excess of 65 dB(A) L_{dn}, an acoustical study will be required. The Noise Element defines noise sensitive areas as rear yard areas on single-family residences and ground floor common areas and private patio areas for multi-family residences. If the acoustical study shows that the noise levels at any noise-sensitive area will exceed 65 dB(A) L_{dn}, the development should not be approved unless the following findings are made:

1. Modifications to the development have been, or will be made, which will reduce the exterior noise levels in noise-sensitive areas to 65 dB(A) L_{dn} or less, or

2. If, with current noise abatement technology, it is not feasible to reduce the exterior noise levels to 65 dB(A) L_{dn} or less, then modifications to the development have been, or will be made, which reduce the exterior noise level to the maximum extent feasible and the interior noise level to 45 dB(A) L_{dn} or less. Particular attention shall be given to noise-sensitive spaces such as bedrooms.

3. For rooms in noise-sensitive areas which are occupied only for a part of the day (schools, libraries, or similar), the interior 1-hour average sound level during occupation, due to noise outside, should not exceed 45 dB(A) L_{eq}.

Further, noise impacts shall be considered significant if any of the following occur as a result of the project:

1. If, as a direct result of the project, noise levels for any existing or planned development will exceed the noise levels considered compatible for that use as identified in Table 1.

2. If, as a direct result of the proposed development, noise levels which already exceed the levels considered compatible for that use are increased by 3 dB or more.

Table 1
Noise/Land Use Compatibility Guide

	Community Noise Exposure (CNEL)						
	55	60	65	70	75	80	
Residential – Low Density Single Family, Duplex, Mobile Homes							
Residential – Multiple Family							
Transient Lodging – Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes[1]							
Auditoriums, Concert Halls, Amphitheaters							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial and Professional							
Industrial, Manufacturing, Utilities, Agriculture							

[1]Applies to noise sensitive areas which serve a significant function for the use which could be adversely affected by noise; such as, outside areas used primarily for instruction, meditation areas, rest and relaxation areas, and other areas where general peace and quiet are important.

Table 1 Noise/Land Use Compatibility Guide	
	Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
	Clearly Unacceptable: New construction or development should generally not be undertaken.

Section 8.0, Implementation, of the Noise Element lists the following measures that may be incorporated into a proposed project as mitigation measures. The following measures are not always required, and mitigation is not limited to this list:

1. The use of site design techniques, such as the provision of buffers to increase distances between the noise source and receiver, siting of buildings and parking areas, and the careful siting of noise-sensitive outdoor features to minimize noise impacts.

2. Provision of berms, landscaping, and other sound barriers, without the exclusive use of walls (e.g., a combination of a small wall and a berm in concert with the overall streetscape in the area could be appropriate).

3. Insulation of buildings against noise, including thicker-than-standard glazing and mechanical ventilation.

4. Improvement of traffic circulation to "smooth" flow by such measures as interconnecting traffic signals.

5. Consideration of the use of innovative construction technologies and materials in constructing or reconstructing streets.

6. Setting of time limits on certain noisy activities.

7. Purchasing of demonstrably quiet equipment for City use.

2.2 City of Santee Municipal Code

Title 5 - Health and Safety

Chapter 5.04 Noise Abatement and Control Ordinance

On-site generated noise is regulated by the City Municipal Code, Title 5 Health and Safety, Chapter 5.04 Noise Abatement and Control. The sections applicable to the project are as follows:

Section 5.04.040 General Noise Regulations

A. General Prohibitions. It is unlawful for any person to make, continue, or cause to be made or continued, within the limits of the City, any disturbing, excessive or offensive noise which causes discomfort or annoyance to reasonable persons of normal sensitivity residing in the area. The characteristics and conditions which should be considered in determining whether a violation of the provisions of this section exists, include, but are not limited to, the following:

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

B. Disturbing, Excessive or Offensive Noises. The following acts, among others, are declared to be disturbing, excessive and offensive noises in violation of this section:

1. Horns, Signaling Devices or Similar Devices. Violations for disturbing, excessive or offensive noises associated with the use or operation of horns, signaling device or similar devices, on automobiles, motorcycles, or any other vehicle, except as provided elsewhere in this code, will be prosecuted under applicable provisions of the California Vehicle Code.

2. Radio, Television, Music, Sound Amplifiers, and Similar Devices.

    a. Uses Restricted. No person is permitted to play, use, operate, or allow to be played, used or operated, any radio, musical instrument, television, loudspeaker, bullhorn, amplifier, public address system, musical instrument, or other machine or device that produces sound

in such manner that disturbs the peace, quiet and comfort of persons of normal sensitivity in the area.

b. Prima Facie Violations. The operation of any device in subsection (B)(2)(a) between the hours of 10:00 p.m. and 7:00 a.m., in such a manner as to be louder than the average conversational level at a distance of 50 feet from the building, structure or vehicle in which it is located, measured vertically or horizontally, is prima facie evidence of a violation of this section.

c. The limitations imposed in this section do not apply between the hours of 7:00 a.m. and 10:00 p.m. to a person participating in: (i) a public assembly; or (ii) a parade, athletic event, or outdoor special event; provided that a permit has been issued for the parade, athletic event or outdoor special event, if required, and the person is in compliance with the permit.

d. The limitations imposed in this section do not apply to emergency signal devices as described in Section 5.04.100 of this code.

3. Disturbing or raucous yelling, shouting, hooting, whistling or singing on the public streets, between the hours of 10:00 p.m. and 7:00 a.m. or at any time or place so as to annoy or disturb the quiet, comfort or repose of neighboring residents or persons of normal sensitivity within the area for whatever reason, is prohibited. This provision may not be construed to prohibit the selling by outcry of merchandise, food and beverages at sporting events, parades, fairs, celebrations, festivals, circuses, carnivals and other similar special events for public entertainment.

4. Heating and Air Conditioning Equipment and Generators.

a. It is unlawful for any person to operate or allow the operation of any generator, air conditioning, refrigeration or heating equipment in such manner as to create a noise disturbance on the premises of any other occupied property, or if a condominium, apartment house, duplex, or attached business, within any adjoining unit.

b. All generators, heating, air conditioning, or refrigeration equipment are subject to the setback and screening requirements in this code.

Section 5.04.070 Motorized Equipment

It is unlawful to operate any lawn mower, backpack blower, lawn edger, leaf blower, riding tractor, or any other machinery, equipment, or other device, or any hand tool which creates a loud, raucous or impulsive sound, within or adjacent to any residential zone between the hours of 10:00 p.m. and 7:00 a.m. of the following day.

Section 5.04.130 Loading and Unloading Operations

A. It is unlawful for any person to engage in loading, unloading, opening, idling of trucks, closing or other handling of boxes, crates, containers, building materials, garbage cans, dumpsters or similar objects between the hours of 10:00 p.m. and 7:00 a.m. in such a manner as to cause a noise disturbance within or adjacent to a residential district.

Section 5.04.160 Limitations on sources of noise not otherwise addressed:

A. Between 10:00 p.m. and 7:00 a.m., it is unlawful for any person to generate any noise on the public way that is louder than average conversational level at a distance of 50 feet or more, vertically or horizontally, from the source.

B. Between 10:00 p.m. and 7:00 a.m., no person is permitted to generate any noise on any private open space that is louder than average conversational level at a distance of 50 feet or more, measured from the property line of the property from which the noise is being generated.

Municipal Code Section 5.04.090, which specifically pertains to construction equipment, makes operation of any construction equipment outside the hours of 7:00 a.m. through 7:00 p.m., Monday through Saturday, except holidays, unlawful unless the operation is expressly approved by the City's Director of Development Services. Construction equipment with a manufacturer's noise rating of 85 dB(A) maximum equivalent noise level (L_{max}) or greater may only operate at a specific location for 10 consecutive workdays. If work involving such equipment would involve more than 10 consecutive workdays, a notice must be provided to all property owners and residents within 300 feet of the site no later than 10 days before the start of construction. The notice must be approved by the City and describe the proposed project and the expected duration of work and provide a point of contact to resolve noise complaints.

Title 13 - Zoning

Chapter 13.30 General Development and Performance Standards

The intent of this section is to protect properties in all districts and the health and safety of persons from environmental nuisances and hazards and to provide a pleasing environment in keeping with the nature of the district character. Section 13.30.030 applies to operation of land uses and states that no operation or activity is permitted which will create vibration noticeable without instruments at the perimeter of the subject property.

3.0 Existing Conditions

Existing noise levels at the project site were measured on July 21, 2022, using one Larson-Davis LxT Sound Expert Sound Level Meters, serial number 3897. The following parameters were used:

Filter:	A-weighted
Response:	Slow
Time History Period:	5 seconds

The meter was calibrated before and after the measurements. The meter was set 5 feet above the ground level for each measurement.

Noise measurements were taken to obtain typical ambient noise levels at the project site and in the vicinity. The weather was warm and sunny with a slight breeze. Four 15-minute measurements were taken, as described below. The measurement locations are shown on Figure 4, and detailed data is presented in Attachment 1.

Measurement 1 was located at the northern project boundary, approximately 50 feet south of Mission Gorge Road. The main source of noise at this location was vehicle traffic on Mission Gorge Road. Secondary sources of noise included aircraft flyovers from Gillespie Field. During the 15-minute measurement period, vehicle traffic on Mission Gorge Road was counted. The average measured noise level was 60.3 dB(A) L_{eq}.

Measurement 2 was located at the western project boundary, approximately 50 feet east of Cottonwood Avenue. The main source of noise at this location was vehicle traffic on Mission Gorge Road and Cottonwood Avenue. During the 15-minute measurement period, vehicle traffic on Cottonwood Avenue was counted. The average measured noise level was 58.8 dB(A) L_{eq}.

Measurement 3 was located at the southern portion of the project site, approximately 10 feet from the southern project boundary. The main source of noise at this location was vehicle traffic on Mission Gorge Road. Secondary sources of noise included barking dogs. The average measured noise level was 48.1 dB(A) L_{eq}.

Measurement 4 was located at the eastern portion of the project site, approximately 10 feet from the eastern project boundary. The main source of noise at this location was vehicle traffic on Mission Gorge Road. Secondary sources of noise included aircraft flyovers and barking dogs. The average measured noise level was 56.6 dB(A) L_{eq}.

Noise measurements are summarized in Table 2, and vehicle traffic counts are summarized in Table 3.

Image Source: NearMap (flown April 2022)

RECON

M:\JOBS5\9999\common_gis\fig4_nos.mxd 12/06/2022 bma

FIGURE 4
Noise Measurement Locations

Table 2 Noise Measurements				
Measurement	Location	Time	Main Noise Sources	L_{eq}
1	50 feet south of Mission Gorge Road	11:22 a.m. – 11:37 a.m.	Vehicle traffic on Mission Gorge Road	60.3
2	50 feet east of Cottonwood Avenue	11:10 a.m. – 11:16 a.m.	Vehicle traffic on Cottonwood Avenue and Mission Gorge Road	58.8
3	10 feet from southern property line	12:07 p.m. – 12:22 p.m.	Vehicle traffic on Mission Gorge Road	48.1
4	10 feet from eastern property line	11:48 a.m. – 12:03 p.m.	Vehicle traffic on Mission Gorge Road	56.6
NOTE: Noise measurement data is contained in Attachment 1.				

Table 3 15-minute Traffic Counts							
Measurement	Roadway	Direction	Autos	Medium Trucks	Heavy Trucks	Buses	Motorcycles
1	Mission Gorge Road	Westbound	199	3	0	2	1
		Eastbound	206	3	0	0	0
2	Cottonwood Avenue	Northbound	37	1	0	0	1
		Southbound	20	0	1	0	0

4.0 Analysis Methodology

Noise level predictions and contour mapping were developed using noise modeling software, SoundPlan Essential, version 4.1 (Navcon Engineering 2018). SoundPLAN calculates noise propagation based on the International Organization for Standardization method (ISO 9613-2 – Acoustics, Attenuation of Sound during Propagation Outdoors). The model calculates noise levels at selected receiver locations using input parameter estimates such as total noise generated by each noise source; distances between sources, barriers, and receivers; and shielding provided by intervening terrain, barriers, and structures. The model outputs can be developed as noise level contour maps or noise levels at specific receivers. In all cases, receivers were modeled at five feet above ground elevation, which represents the average height of the human ear.

4.1 Construction Noise Analysis

Project construction noise would be generated by diesel engine-driven construction equipment used for site preparation and grading, rock processing, building construction, loading, unloading, and placing materials and paving. Diesel engine-driven trucks also would bring materials to the site and remove the soil from excavation.

Construction equipment with a diesel engine typically generates maximum noise levels from 70 to 95 dB(A) L_{eq} at a distance of 50 feet (Federal Highway Administration [FHWA] 2006). Table 4 summarizes typical construction equipment noise levels.

Table 4 Typical Construction Equipment Noise Levels			
Equipment	Maximum Noise Level at 50 Feet [dB(A) L_{eq}]	Typical Duty Cycle	Average Hourly Noise Level at 50 Feet [dB(A) L_{eq}]
Auger Drill Rig	85	20%	77
Backhoe	80	40%	76
Blasting	94	1%	74
Chain Saw	85	20%	78
Clam Shovel	93	20%	86
Compactor (ground)	80	20%	73
Compressor (air)	80	40%	76
Concrete Mixer Truck	85	40%	81
Concrete Pump	82	20%	75
Concrete Saw	90	20%	83
Crane (mobile or stationary)	85	20%	73
Dozer	85	40%	81
Dump Truck	84	40%	80
Excavator	85	40%	81
Front End Loader	80	40%	76
Generator (25 kilovolt amps or less)	70	50%	67
Generator (more than 25 kilovolt amps)	82	50%	79
Grader	85	40%	81
Hydra Break Ram	90	10%	80
Impact Pile Driver (diesel or drop)	95	20%	88
Insitu Soil Sampling Rig	84	20%	77
Jackhammer	85	20%	78
Mounted Impact Hammer (hoe ram)	90	20%	83
Paver	85	50%	82
Pneumatic Tools	85	50%	82
Pumps	77	50%	74
Rock Drill	85	20%	78
Roller	74	40%	70
Scraper	85	40%	81
Tractor	84	40%	80
Vacuum Excavator (vac-truck)	85	40%	81
Vibratory Concrete Mixer	80	20%	73
Vibratory Pile Driver	95	20%	88
SOURCE: FHWA 2006.			

There are large boulders and bedrock located in the southeast portion of the project site. At the beginning of project construction, prior to site grading, rock breaking and crushing activities would also be required. It is anticipated that these activities would last approximately two months. First, the larger boulders would be drilled with a rock drill and chemicals would be used to break them down to manageable sizes. A rock drill would generate an average hourly noise level of 78 dB(A) L_{eq} at 50 feet. Then, an excavator with a mounted 10,000-pound hydraulic hammer/breaker would break those rock pieces down to two-foot diameter or less fragments. An excavator with a mounted impact hammer would generate a combined noise level of 85 dB(A) L_{eq} at 50 feet. These smaller rocks would

then be hauled off-site or crushed on-site. As a worst-case noise analysis, a rock crusher was modeled on the project site. Based on noise measurements taken at a temporary rock crushing operation, the rock crusher would generate a noise level of 88 dB(A) L_{eq} at 50 feet. This noise level would attenuate to 75 dB(A) L_{eq} at a distance of 165 feet. Therefore, as a noise reduction feature, the rock crusher was modeled at a distance of more than 165 feet from all adjacent residential property lines (refer to Mitigation Measure NOISE-1). A loader may also be required to transfer rock to the crusher. A loader generates a noise level of 76 dB(A) L_{eq} at 50 feet.

During the remaining excavation, grading, and paving operations, equipment moves to different locations and goes through varying load cycles (i.e., amount of time that equipment operates at full power), and there are breaks for the operators and for non-equipment tasks, such as measurement. Although maximum noise levels may be 70 to 95 dB(A) at a distance of 50 feet during most construction activities, hourly average noise levels from the grading phase of construction would be 85 dB(A) L_{eq} at 50 feet from the center of construction activity when assessing the loudest pieces of equipment–dozer, excavator, and loader–working simultaneously.

Table 5 summarizes the modeled construction equipment for the rock drilling, rock breaking, rock crushing, and grading phases of construction. Once grading is complete, all other on-site construction activity, such as building construction and paving, would be quieter than these modeled phases.

Table 5
Modeled Construction Equipment

Phase	Equipment	Average Noise Level at 50 Feet [dB(A) L_{eq}]	Sound Power Level [dB(A) L_{PW}]
Rock Drilling	Rock Drill	78	109.7
Rock Breaking	Excavator	81	112.7
	Mounted Impact Hammer	83	114.7
	Combined Noise Level	85	116.8
Rock Crushing	Rock Crusher	88	119.9
	Jaw Crusher	*81*	*112.7*
	Cone Crusher	*81*	*113.1*
	Screens	*86*	*117.4*
	Conveyor	*73*	*104.4*
	Loader	76	107.7
	Combined Noise Level	88	120.1
Grading	Dozer	81	112.7
	Excavator	81	112.7
	Loader	76	107.7
	Combined Noise Level	85	116.3

4.2 On-site Generated Noise Analysis

The noise sources on the project site after the project is constructed would include rooftop mechanical ventilation equipment on the auto dealership and body shop buildings, car wash blowers, car wash vacuums, and the auto service departments and body shop. Noise levels associated with these on-site noise sources were modeled using the SoundPLAN program. Modeled noise levels take into account the six-foot masonry screening walls that would be constructed along the western, southern, and eastern property lines. The masonry wall would be stepped up to eight feet along the eastern project boundary 50 feet south of Mission Gorge Road and 50 feet north of Railroad Avenue.

The rooftop mechanical ventilation systems would include rooftop units (RTUs) and condensing units (CUs). RTU and CU locations were obtained from the project roof plans. The 5-ton RTUs would be similar to Trane packaged rooftop air conditioners Model YSC, the 6- through 15-ton RTUs would be similar to Trane packaged rooftop air conditioners Model YSJ, and the CUs would be similar to Trane Mitsubishi heat pump Model TRUZ. The sound power levels for this equipment is summarized in Table 6 and the noise specifications are provided in Attachment 2. All units were modeled at 100 percent capacity during the daytime hours and the nighttime hours.

The car wash tunnel would include a blower system located within the tunnel approximately 15 feet from the exit. The dryers would be similar to Proto-Vest Dryer systems. Each of the dryers would be equipped with the manufacturer's silencer packages. Noise specifications for the dryers were obtained from the manufacturer and are included in Attachment 2. Based on the traffic impact analysis prepared for the project, the car wash would generate up to 39 peak hour trips (Linscott, Law & Greenspan, Engineers 2023). A 1-minute drying cycle time was modeled for each wash, for a total blower operating time of 39 minutes per hour. The car wash exit would also include a door that would be closed during a majority of the washing and drying process and would open to allow vehicles to exit. This door would reduce property line noise levels due to operation of the car wash. However, as a conservative analysis, noise reduction due to this door was not included in the model.

The car wash would also include a vacuum system consisting of two central enclosed vacuum motors and 22 vacuum hoses. Vacuums hoses were modeled at each of the proposed vacuum parking spaces located on the west side of the car wash tunnel. A sound power level of 77.3 dB(A) L_{pw} was modeled at each vacuum location (AcoustiControl 2017). The car wash would operate during the daytime hours only from 7 a.m. to 7 p.m.

The auto dealerships on Parcels A and B would include service departments and an auto body shop is proposed on Parcel C. Noise-generating equipment at the service stations and auto body shop would include tools such as air compressors, pneumatic tools, and tire machines. All auto body repair services and activities would occur within the proposed buildings with doors closed. However, as a conservative analysis, noise levels were modeled with the doors open. The enclosed buildings would act as noise-reducing barriers to minimize exposure of adjacent receivers to excess noise levels. Modern construction materials, consistent with the Universal Building Code, typically provide an exterior-to-interior noise level reduction of 25 to 30 dB with all exterior openings sealed, and provide an exterior-to-interior noise level reduction of 10 dB with windows and doors open (California Department of Transportation 2013). Noise levels due to the operation of an air compressor and pneumatic tools within the proposed buildings were modeled using the maximum noise levels

summarized in Table 4 and a usage factor of 20 percent. To account for an enclosed building with doors open, equipment noise levels were reduced by 10 dB. The service departments and auto body shop would operate during the daytime hours only from 7 a.m. to 7 p.m.

Parcel A would also include detail bays for up to six vehicles. Noise generated at the detail bays would be generated by Rigid WD1450 shop vacuums that generate a sound power level of 87 dB(A) L_{pw}. Noise levels were modeled with the vacuums operating simultaneously at full power at each of the six open detail bays. There would be no radios and trucks would either pull up on Mission Gorge Road or pull onto the site and continue forward, not requiring backup.

The sound power levels for this equipment are summarized in Table 6 and the noise specifications are provided in Attachment 2.

Table 6
Sound Power Levels of Proposed Mechanical Equipment

Equipment	Sound Power Level
Proto-Vest Dryer	98 dB(A) L_{pw}
Vacuums	77.3 dB(A) L_{pw} per Vacuum Hose
5-Ton RTU	81 dB(A) L_{pw}
6-Ton RTU	86 dB(A) L_{pw}
8.5-Ton RTU	86 dB(A) L_{pw}
10-Ton RTU	86 dB(A) L_{pw}
15-Ton RTU	87 dB(A) L_{pw}
2-Ton CU	48 dB(A) L_{pw}
2.5-Ton CU	48 dB(A) L_{pw}
Air Compressor	105 dB(A) L_{pw}
Pneumatic Tools	110 dB(A) L_{pw}
Shop Vacuums	87 dB(A) L_{pw}
SOURCES: Attachment 2, AcoustiControl 2017, FHWA 2006.	

4.3 Traffic Noise Analysis

Off-site traffic noise was modeled using the FHWA Traffic Noise Prediction Model algorithms and reference levels. Traffic noise levels were calculated at 50 feet from the centerline of the affected roadways to determine the noise level increase associated with the project. The model uses various input parameters, such as traffic volumes, vehicle mix, distribution, and speed.

Roadways in the vicinity of the project site that are included in the traffic analysis are Mission Gorge Road, Mast Boulevard, Carlton Oaks Boulevard, Cuyamaca Street, and Magnolia Avenue. Traffic noise levels were calculated based on the total average daily traffic volume on each roadway segment. For modeling purposes, "hard" ground conditions were used for the analysis of future conditions, since a majority of the project area is paved and the hard site provides the most conservative impact assessment. Noise levels were modeled at 50 feet from roadway centerlines. Modeled noise levels do not account for shielding provided by intervening barriers and structures.

Existing, existing plus project, existing plus cumulative projects, and existing plus cumulative projects plus proposed project were obtained from the Traffic Impact Analysis prepared for the project (Linscott, Law & Greenspan, Engineers 2023). Table 7 summarizes the modeled traffic volumes.

Table 7
Roadway Traffic Volumes

Roadway Segment	Existing	Existing + Project	Existing + Cumulative Projects	Existing + Cumulative Projects + Project	Speed (mph)
Mission Gorge Road					
Carlton Hills Boulevard to Cuyamaca Street	38,720	39,050	42,010	42,340	35
Cuyamaca Street to Cottonwood Avenue	26,060	28,300	30,020	32,260	40
Cottonwood Avenue to Edgemoor Drive	25,460	27,700	27,910	30,150	40
Edgemoor Drive to Magnolia Avenue	25,460	26,460	27,700	28,700	40
Mast Boulevard					
Carlton Hills Boulevard to Cuyamaca Street	20,600	20,730	22,470	22,600	40
Cuyamaca Street to Magnolia Avenue	18,860	18,890	20,040	20,070	40
Magnolia Avenue to Los Ranchitos	7,860	8,030	9,210	9,380	35
Carlton Hills Boulevard					
Mast Boulevard to Carlton Oaks Drive	10,230	10,460	11,560	11,790	35
Carlton Oaks Drive to Mission Gorge Road	25,460	25,790	27,340	27,670	35
Cuyamaca Street					
El Nopal to Mast Boulevard	9,040	9,210	10,800	10,970	35
Mast Boulevard to Mission Gorge Road	27,220	27,550	29,710	30,040	35
Mission Gorge Road to SR-52 Ramps	39,500	41,070	43,400	44,970	35
SR-52 Ramps to Prospect Avenue	26,580	27,010	30,400	30,830	35
Magnolia Avenue					
El Nopal to Mast Boulevard	13,960	14,130	15,260	15,430	40
Mast Boulevard to Mission Gorge Road	26,350	26,680	28,100	28,430	45
Mission Gorge Road to Prospect Avenue	34,550	34,880	37,710	38,040	40
Woodside Avenue					
Magnolia Avenue to SR-67 Eastbound Ramps	27,750	28,080	28,880	29,210	45
SOURCE: Linscott, Law & Greenspan, Engineers 2023					

5.0 Future Acoustical Environment and Impacts

5.1 Construction Noise

Residential uses are located south, east, and west of the project site and commercial uses are located north of the project site. The Noise Element defines noise sensitive areas as rear yard areas on single-family residences and ground floor common areas and private patio areas for multi-family residences. Noise associated with the rock processing, grading, building, and paving for the project would potentially result in short-term impacts to surrounding properties. Construction noise levels were modeled using the parameters summarized in Section 4.1.

Construction noise is considered a point source and would attenuate at approximately 6 dB(A) for every doubling of distance. To reflect the nature of grading and construction activities, rock drilling

and breaking equipment was modeled as an area source over the area where the rock is located in the southeast portion of the project site, and grading equipment was modeled as an area source distributed over the project footprint. Since a rock crusher is a stationary source, it was modeled as a point source in a fixed location. Noise levels were modeled at a series of 25 receivers located at the adjacent uses. The results are summarized in Table 8. Modeled receiver locations and construction noise contours are shown in Figures 5a through 5d. SoundPLAN data is contained in Attachment 3.

Table 8
Construction Noise Levels at Off-site Receivers

Receiver	Land Use	Construction Noise Level [dB(A) L_{eq}]			
		Rock Drilling	Rock Breaking	Rock Crushing	Grading
1	Residential	62	45	52	61
2	Residential	63	45	52	61
3	Residential	63	45	52	60
4	Residential	66	47	54	62
5	Residential	67	48	55	64
6	Residential	67	50	57	65
7	Residential	67	51	58	67
8	Residential	67	54	61	67
9	Residential	62	60	68	63
10	Residential	62	63	70	61
11	Residential	65	67	74	64
12	Residential	65	67	74	65
13	Residential	64	66	73	64
14	Residential	64	64	72	64
15	Residential	67	60	67	65
16	Residential	63	58	65	63
17	Commercial	60	55	62	61
18	Commercial	61	54	61	63
19	Commercial	62	54	61	67
20	Commercial	63	53	60	69
21	Commercial	63	51	58	72
22	Commercial	63	50	57	71
23	Commercial	63	48	55	68
24	Commercial	62	47	54	65
25	Commercial	62	47	54	64

Image Source: NearMap (flown April 2022)

Project Boundary

Receivers

Rock Drilling Noise

- 60 dB(A) L_{eq}
- 65 dB(A) L_{eq}
- 70 dB(A) L_{eq}
- 75 dB(A) L_{eq}

0 Feet 250

FIGURE 5a
Construction Noise Contours - Rock Drilling

RECON

M:\JOBS5\9999\common_gis\fig5a_nos.mxd 12/06/2022 bma

Image Source: NearMap (flown April 2022)

Project Boundary

Receivers

Rock Breaking Noise

60 dB(A) L_{eq}

65 dB(A) L_{eq}

70 dB(A) L_{eq}

75 dB(A) L_{eq}

0 Feet 300

FIGURE 5b
Construction Noise Contours - Rock Breaking

RECON

M:\JOBS5\9999\common_gis\fig5b_nos.mxd 6/23/2023 fmm

Image Source: NearMap (flown April 2022)

Project Boundary

Receivers

Rock Crushing Noise

60 dB(A) L_{eq}

65 dB(A) L_{eq}

70 dB(A) L_{eq}

75 dB(A) L_{eq}

0 Feet 250

FIGURE 5c
Construction Noise Contours - Rock Crushing

RECON

M:\JOBS5\9999\common_gis\fig5c_nos.mxd 12/06/2022 bma

Image Source: NearMap (flown April 2022)

Project Boundary

Receivers

Grading Noise

- 60 dB(A) L_{eq}
- 65 dB(A) L_{eq}
- 70 dB(A) L_{eq}
- 75 dB(A) L_{eq}

0 Feet 250

FIGURE 5d
Construction Noise Contours - Grading

RECON

M:\JOBS5\9999\common_gis\fig5d_nos.mxd 12/06/2022 bma

As shown, construction noise levels are not anticipated to exceed 75 dB(A) L_{eq} at the property lines of the adjacent residential uses and therefore would not exceed 75 dB(A) L_{eq} at the noise sensitive areas. In accordance with City Municipal Code Section 5.04.090, construction activities would not occur before 7:00 a.m. or after 7:00 p.m. on Mondays through Saturdays and would not occur at any time on Sundays and holidays. Although the adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be temporary (one year). Additionally, as required by the City's Municipal Code, a notice would be provided to all owners and occupants within 300 feet of the project site if the construction equipment has a manufacturer's noise rating of 85 dB(A) and operates at a specific location for 10 consecutive workdays. The noise levels summarized in Table 8 are based on the assumption that the stationary rock crusher would be located a certain distance away from the adjacent residential property lines. If rock crushing were to occur closer to the property lines, a significant noise impact would occur. Therefore, the following mitigation measure would be required:

Mitigation Measures

NOISE-1: Construction Noise

Prior to issuance of any grading permit(s) for the project, the project applicant or its contractor(s) shall ensure that:

- All on-site rock crushing shall occur at a distance of 165 feet or more from the southern, eastern, and western property lines.
- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers.
- Construction noise reduction methods such as shutting off idling equipment, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from or shielded from sensitive noise receivers.
- During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise sensitive receptors.
- The project shall be in compliance with the City's Noise Abatement and Control Ordinance such that construction shall occur on the weekdays (Monday through Friday) and Saturday between the hours of 7:00 a.m. to 7:00 p.m. and a notice of construction shall be mailed to all owners and occupants within 300 feet of the project site no more than 10 days before the start of construction. Construction hours, allowable workdays and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding property owners and residents to contact the job superintendent. In the event that the City receives a complaint regarding construction noise, appropriate corrective actions shall be implemented and a report of the action provided to the reporting party.

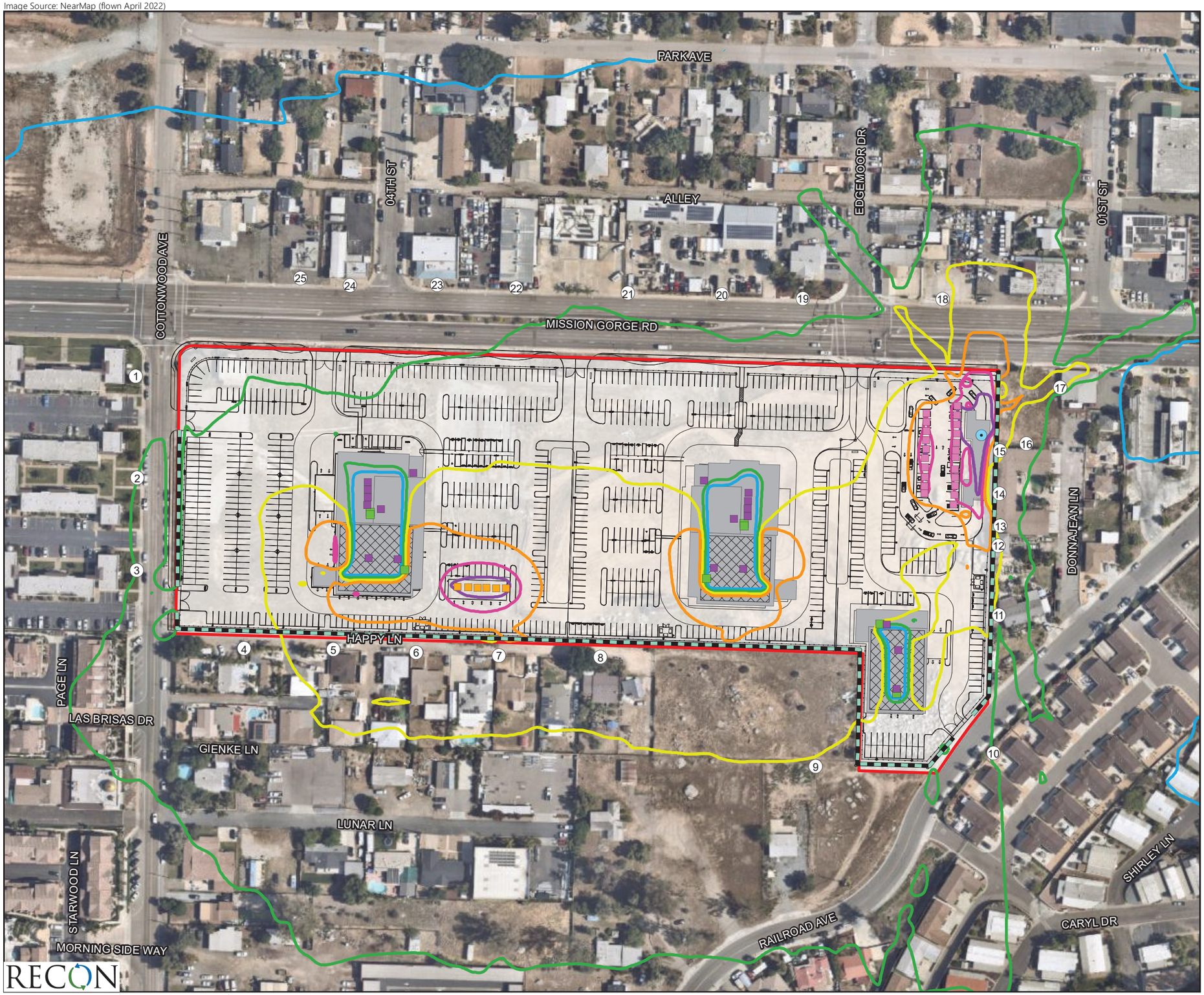
With implementation of Mitigation Measure NOISE-1, impacts associated with temporary increases in noise during construction would be less than significant.

5.2 On-site Generated Noise

The noise sources on the project site after completion of construction would include rooftop mechanical ventilation equipment on the auto dealership and body shop buildings, car wash dryer system, car wash vacuums, and the auto service departments and body shop. Noise levels associated with these on-site noise sources were modeled using the parameters discussed in Section 4.2. Modeled noise levels take into account the six-foot masonry screening walls that would be constructed along the western, southern, and eastern property lines. The masonry wall would be stepped up to eight feet along the eastern project boundary 50 feet south of Mission Gorge Road and 50 feet north of Railroad Avenue.

Modeled receivers, equipment locations, and daytime on-site generated noise contours are shown in Figure 6a. Nighttime noise contours are shown in Figure 6b. Because the project would only be operational during the daytime noise levels, nighttime noise levels generated on-site would only be associated with the operation of the RTUs and CUs. Modeled data is included in Attachment 4. Future projected noise levels are summarized in Table 9.

Image Source: NearMap (flown April 2022)



- Project Boundary
- Site Plan
- Receivers
- Blowers
- Vacuums
- Shop Vacs
- RTUs
- CUs
- Wall
- Body Shop
- Buildings

Daytime Operational Noise

- 40 dB(A) L_{eq}
- 45 dB(A) L_{eq}
- 50 dB(A) L_{eq}
- 55 dB(A) L_{eq}
- 60 dB(A) L_{eq}
- 65 dB(A) L_{eq}
- 70 dB(A) L_{eq}

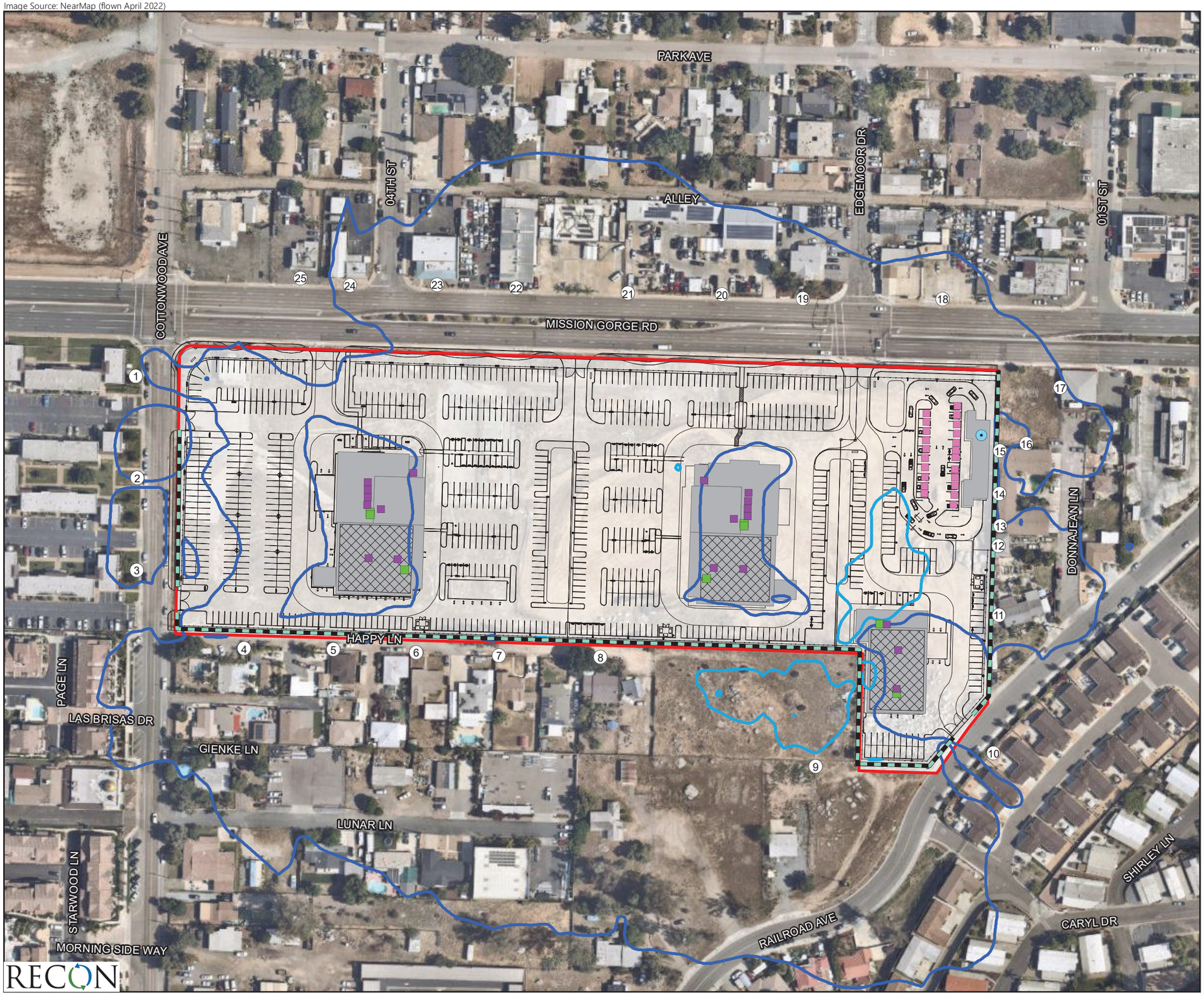
0 Feet 150

RECON

M:\JOBS5\9999\common_gis\fig6a_nos.mxd 4/24/2023 fmm

FIGURE 6a
Operational Noise Contours - Daytime

Image Source: NearMap (flown April 2022)



Project Boundary
Site Plan
Receivers
Blowers
Vacuums
RTUs
CUs
Wall
Body Shop
Buildings

Nighttime Operational Noise

40 dB(A) L_{eq}
45 dB(A) L_{eq}

0 Feet 150

RECON

M:\JOBS5\9999\common_gis\fig6b_nos.mxd 12/14/2022 bma

FIGURE 6b
Operational Noise Contours - Nighttime

Table 9 On-site Generated Noise Levels at Adjacent Property Lines					
		Daytime Noise Level [dB(A) L_{eq}]		Nighttime Noise Level [dB(A) L_{eq}]	
Receiver	Land Use	First-Floor	Second-Floor	First-Floor	Second-Floor
1	Residential	48	49	40	41
2	Residential	50	51	41	42
3	Residential	50	51	40	41
4	Residential	54	--	42	--
5	Residential	57	--	42	--
6	Residential	57	--	42	--
7	Residential	58	--	44	--
8	Residential	57	--	44	--
9	Residential	55	--	45	--
10	Residential	51	52	39	42
11	Residential	52	--	44	--
12	Residential	56	--	41	--
13	Residential	50	55	40	44
14	Residential	50	51	39	43
15	Residential	56	55	38	43
16	Residential	52	52	41	42
17	Commercial	57	--	40	--
18	Commercial	53	--	41	--
19	Commercial	49	--	41	--
20	Commercial	49	--	41	--
21	Commercial	50	--	42	--
22	Commercial	49	--	42	--
23	Commercial	49	--	42	--
24	Commercial	48	--	41	--
25	Commercial	47	--	39	--

In accordance with the Noise Element of the General Plan, the noise level threshold is 65 dB(A) L_{eq} at the property line. As shown, at the adjacent residential uses, peak hour daytime operational noise levels would be 58 dB(A) L_{eq} or less and nighttime operational noise levels would be 45 dB(A) L_{eq} or less. At the adjacent commercial uses, peak hour daytime operational noise levels would be 57 dB(A) L_{eq} or less and nighttime operational noise levels would be 42 dB(A) L_{eq} or less. Noise levels are not anticipated to exceed 65 dB(A) L_{eq} during the operational hours.

As discussed, the car wash exit would include a door that would be closed during a majority of the washing and drying process and would open to allow vehicles to exit. This door would reduce property line noise levels due to operation of the car wash beyond the levels summarized in Table 9. However, as a conservative analysis, noise reduction due to this door was not included in the model.

Section 5.04.160 of the City Municipal Code places limitations on noise sources that occur during the nighttime hours between 10:00 p.m. and 7:00 a.m. During the nighttime hours, "no person is permitted to generate any noise on any private open space that is louder than average conversational level at a distance of 50 feet or more, measured from the property line of the property

from which the noise is being generated." The car wash dryers, vacuums, service department, and auto body shop would not be operational during the nighttime hours. Nighttime noise levels due to rooftop mechanical equipment would range from 38 to 45 dB(A) L_{eq}, which is not considered louder than the average conversational noise level.

To ensure that noise levels do not exceed those summarized in Table 9, the following mitigation measure would be required:

Mitigation Measures

NOISE-2: Operational Noise

The project shall incorporate the following measures:

- Prior to precise grading, a six-foot masonry wall noise barrier shall be constructed along the western, southern, and eastern project boundaries as depicted in Figure 6a. The masonry wall shall be stepped up to eight feet along the eastern project boundary 50 feet south of Mission Gorge Road and 50 feet north of Railroad Avenue The sound attenuation walls must be solid and free of cracks, gaps or holes through or below the wall. Any seams or cracks must be filled or caulked.

- The manufacturer noise specifications for the car wash blower system selected for the project shall include a silencer package and shall not exceed a sound power level of 106 dB(A) L_{pw}.

- The manufacturer noise specifications for the car wash vacuum hoses selected for the project shall not exceed a sound power level of 77.3 dB(A) L_{pw}.

- Operation of the car wash shall be prohibited during the hours of 7 p.m. and 7 a.m.

With implementation of Mitigation Measure NOISE-2, operational noise levels are not anticipated to violate the City's Municipal Code. Operational noise impacts would be less than significant.

5.3 Vehicle Traffic Noise

The project would increase traffic volumes on local roadways. However, the project would not substantially alter the vehicle classifications mix on local or regional roadways nor would the project alter the speed on an existing roadway or create a new roadway. Thus, the primary factor affecting off-site noise levels would be increased traffic volumes. While changes in noise levels would occur along any roadway where project-related traffic occurs, for noise assessment purposes, noise level increases are assumed to be greatest nearest the project site, as this location would represent the greatest concentration of project-related traffic. As discussed in Section 2.1 above, the City's General Plan Noise Element states that noise impacts would be significant if the project results in an increase of 3 dB or more where noise levels already exceed the land use compatibility levels. A 3 dB increase in noise is barely perceptible to the human ear.

Table 10 presents a conservative assessment of traffic noise levels based on the existing, existing plus project, existing plus cumulative projects, and existing plus cumulative projects plus proposed project. Table 10 also summarizes the traffic noise level increases due to the project. Noise level calculations are contained in Attachment 5.

As shown in Table 10, off-site noise level increases due to the project would be less than 3 dB and would not be perceptible. Therefore, impacts associated with off-site vehicle noise would be less than significant.

Table 10
Vehicle Traffic Noise
[dB(A)]

Roadway Segment	Existing Noise Level	Existing + Project		Existing + Cumulative Projects		Existing + Cumulative Projects + Project	
		Noise Level	Increase Over Existing	Noise Level	Increase Over Existing	Noise Level	Increase Over Existing
Mission Gorge Road							
Carlton Hills Boulevard to Cuyamaca Street	73.1	73.2	0.1	73.5	0.4	73.5	0.4
Cuyamaca Street to Cottonwood Avenue	72.6	73.0	0.4	73.2	0.6	73.5	0.9
Cottonwood Avenue to Edgemoor Drive	72.5	72.9	0.4	72.9	0.4	73.2	0.7
Edgemoor Drive to Magnolia Avenue	72.5	72.7	0.2	72.9	0.4	73.0	0.5
Mast Boulevard							
Carlton Hills Boulevard to Cuyamaca Street	71.6	71.6	0.0	72.0	0.4	72.0	0.4
Cuyamaca Street to Magnolia Avenue	71.2	71.2	0.0	71.5	0.3	71.5	0.3
Magnolia Avenue to Los Ranchitos	66.2	66.3	0.1	66.9	0.7	67.0	0.8
Carlton Hills Boulevard							
Mast Boulevard to Carlton Oaks Drive	67.3	67.4	0.1	67.9	0.6	68.0	0.7
Carlton Oaks Drive to Mission Gorge Road	71.3	71.4	0.1	71.6	0.3	71.7	0.4
Cuyamaca Street							
El Nopal to Mast Boulevard	66.8	66.9	0.1	67.6	0.8	67.7	0.9
Mast Boulevard to Mission Gorge Road	71.6	71.6	0.0	72.0	0.4	72.0	0.4
Mission Gorge Road to SR-52 Ramps	73.2	73.4	0.2	73.6	0.4	73.8	0.6
SR-52 Ramps to Prospect Avenue	71.5	71.6	0.1	72.1	0.6	72.1	0.6
Magnolia Avenue							
El Nopal Mast Boulevard	69.9	70.0	0.1	70.3	0.4	70.3	0.4
Mast Boulevard to Mission Gorge Road	73.8	73.8	0.0	74.1	0.3	74.1	0.3

Table 10 Vehicle Traffic Noise [dB(A)]							
		Existing + Project		Existing + Cumulative Projects		Existing + Cumulative Projects + Project	
Roadway Segment	Existing Noise Level	Noise Level	Increase Over Existing	Noise Level	Increase Over Existing	Noise Level	Increase Over Existing
Mission Gorge Road to Prospect Avenue	73.8	73.9	0.1	74.2	0.4	74.3	0.5
Woodside Avenue							
Magnolia Avenue to SR-67 Eastbound Ramps	74.0	74.1	0.1	74.2	0.2	74.2	0.2
SOURCE: Attachment 5							

6.0 Conclusions

6.1 Construction Noise

As shown in Table 8, construction noise levels are not anticipated to exceed 75 dB(A) L_{eq} at the property lines of the adjacent residential uses, and therefore would not exceed 75 dB(A) L_{eq} at the noise sensitive areas. In accordance with City Municipal Code Section 5.04.090, construction activities would not occur before 7:00 a.m. or after 7:00 p.m. on Mondays through Saturdays, and would not occur at any time on Sundays and holidays. Although the adjacent residences would be exposed to construction noise levels that could be heard above ambient conditions, the exposure would be temporary (one year). Additionally, as required by the City Municipal Code, a notice would be provided to all owners and occupants within 300 feet of the project site if the construction equipment has a manufacturer's noise rating of 85 dB and operates at a specific location for 10 consecutive workdays. The noise levels summarized in Table 8 are based on the assumption that the stationary rock crusher would be located a certain distance away from the adjacent residential property lines. If rock crushing were to occur closer to the property lines, a significant noise impact would occur. Therefore, the following mitigation measure would be required:

NOISE-1: Construction Noise

Prior to issuance of any grading permit(s) for the project, the project applicant or its contractor(s) shall ensure that:

- On-site rocks and boulders shall be relocated off-site to the maximum extent feasible.
- All on-site rock crushing shall occur at a distance of 165 feet or more from the southern, eastern, and western property lines.
- All construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers.

- Construction noise reduction methods such as shutting off idling equipment, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.

- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from or shielded from sensitive noise receivers.

- During construction, stockpiling and vehicle staging areas shall be located as far as practical from noise sensitive receptors.

- The project shall be in compliance with the City's Noise Abatement and Control Ordinance such that construction shall occur on the weekdays (Monday through Friday) and Saturday between the hours of 7:00 a.m. to 7:00 p.m. and a notice of construction shall be mailed to all owners and occupants within 300 feet of the project site no more than 10 days before the start of construction. Construction hours, allowable workdays and the phone number of the job superintendent shall be clearly posted at all construction entrances to allow surrounding property owners and residents to contact the job superintendent. In the event that the City receives a complaint regarding construction noise, appropriate corrective actions shall be implemented and a report of the action provided to the reporting party.

Timeframe of Mitigation: Prior to issuance of grading permits.

Monitoring, Enforcement, and Reporting Responsibility: City of Santee.

With implementation of Mitigation Measure NOISE-1, impacts associated with temporary increases in noise during construction would be less than significant.

6.2 On-site Generated Noise

The noise sources on the project site after completion of construction would include rooftop mechanical ventilation equipment on the auto dealership and body shop buildings, car wash blowers, car wash vacuums, and the auto service departments and body shop. In accordance with the Noise Element of the General Plan, the noise level threshold is 65 dB(A) L_{eq} at the property line. As shown in Table 9, at the adjacent residential uses, peak hour daytime operational noise levels would be 58 dB(A) L_{eq} or less and nighttime operational noise levels would be 45 dB(A) L_{eq} or less. At the adjacent commercial uses, peak hour daytime operational noise levels would be 57 dB(A) L_{eq} or less and nighttime operational noise levels would be 42 dB(A) L_{eq} or less. Due to the existing ambient noise levels in the vicinity of the project site which are dominated by vehicle traffic on Mission Gorge Road and because car wash dryers, vacuums, service department, and auto body shop would not be operational during the nighttime hours, the property line noise levels generated by the project are not considered "disturbing, excessive or offensive." Nighttime noise levels due to rooftop mechanical equipment would range from 38 to 45 dB(A) L_{eq}, which is not considered louder than the average conversational noise level.

To ensure that noise levels do not exceed those summarized in Table 9, the following mitigation measure would be required:

Mitigation Measures

NOISE-2: Operational Noise

As a condition of approval, the project shall incorporate the following measures:

- An 8-foot masonry noise barrier shall be constructed along the western, southern, and eastern project boundaries as depicted in Figure 6a. The sound attenuation walls must be solid and free of cracks or holes. The walls will have no cracks or gaps, through or below the wall. Any seams or cracks must be filled or caulked.
- The manufacturer noise specifications for the car wash blower system selected for the project shall include a silencer package and shall not exceed a sound power level of 106 dB(A) L_{pw}.
- The manufacturer noise specifications for the car wash vacuum hoses selected for the project shall not exceed a sound power level of 77.3 dB(A) L_{pw}.
- Operation of the car wash shall be prohibited during the hours of 7 p.m. and 7 a.m.

Timeframe of Mitigation: Prior to precise grading.

Monitoring, Enforcement, and Reporting Responsibility: City of Santee.

With implementation of Mitigation Measure NOISE-2, operational noise levels are not anticipated to violate the City's Municipal Code. Operational noise impacts would be less than significant.

6.3 Vehicle Traffic Noise

The project would increase traffic volumes on local roadways. However, the project would not substantially alter the vehicle classifications mix on local or regional roadways, nor would the project alter the speed on an existing roadway or create a new roadway. Thus, the primary factor affecting off-site noise levels would be increased traffic volumes. A substantial noise increase is defined as an increase of 3 dB above existing conditions. As shown in Table 10, off-site noise level increases due to the project would be less than 3 dB and would not be perceptible. Therefore, impacts associated with off-site vehicle noise would be less than significant.

7.0 References Cited

AcoustiControl
2017 Mobil Car Wash Environmental Noise Study. H1293 Revised. Prepared for Civil and Environmental Consultants, Inc. August 29.

California Department of Transportation
2013 Technical Noise Supplement. November.

Federal Highway Administration (FHWA)
2006 Roadway Construction Noise Model User's Guide. FHWA-HEP-05-054, SOT-VNTSC-FHWA-05-01. Final Report. January.

Federal Transit Administration (FTA)
2018 Transit Noise and Vibration Impact Assessment Manual. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. September.

Linscott, Law & Greenspan, Engineers
2023 Traffic Impact Analysis for the Santee Auto Center. LLG Ref. 3-22-3591. April 20.

Navcon Engineering, Inc.
2018 SoundPLAN Essential version 4.1.

Santee, City of
2003 City of Santee General Plan 2000-2020, adopted August.

ATTACHMENTS

ATTACHMENT 1

Noise Measurement Data

Summary

File Name on Meter	LxT_Data.018.s
File Name on PC	LxT_0003897-20220721 112208-LxT_Data.018.ldbin
Serial Number	0003897
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	Measurement 1
Job Description	9999 Santee Auto Center
Note	

Measurement

Description	
Start	2022-07-21 11:22:08
Stop	2022-07-21 11:37:23
Duration	00:15:15.3
Run Time	00:15:15.3
Pause	00:00:00.0
Pre-Calibration	2022-07-21 10:59:45
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Linear
Overload	144.1 dB

	A	C	Z
Under Range Peak	**100.4**	97.4	102.4 dB
Under Range Limit	**49.4**	47.4	55.4 dB
Noise Floor	36.2	36.9	44.5 dB

Results

LAeq	60.3		
LAE	90.0		
EA	110.073	µPa²h	
EA8	3.463	mPa²h	
EA40	17.317	mPa²h	
LApeak (max)	2022-07-21 11:29:30	97.4	dB
LASmax	2022-07-21 11:29:30	79.1	dB
LASmin	2022-07-21 11:32:05	46.2	dB
SEA	-99.9	dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	30	337.3	s
LAS > 70.0 dB (Exceedance Counts / Duration)	2	9.4	s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0	s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0	s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0	s
LCeq	72.8	dB	
LAeq	60.3	dB	
LCeq - LAeq	12.5	dB	
LAleq	63.2	dB	
LAeq	60.3	dB	
LAleq - LAeq	2.8	dB	

	A		C		Z	
	dB	Time Stamp	dB	Time Stamp	dB	Time Stamp
Leq	60.3		72.8			
LS(max)	79.1	2022/07/21 11:29:30				
LS(min)	46.2	2022/07/21 11:32:05				
LPeak(max)	97.4	2022/07/21 11:29:30				

Overload Count	0	
Overload Duration	0.0	s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5 dB	5 dB
Threshold	90 dB	80 dB
Criterion Level	90 dB	90 dB
Criterion Duration	8 h	8 h

Results

Dose	-99.94	-99.94	%
Projected Dose	-99.94	-99.94	%
TWA (Projected)	-99.9	-99.9	dB
TWA (t)	-99.9	-99.9	dB
Lep (t)	45.4	45.4	dB

Statistics

LA5.00	65.0	dB
LA10.00	62.7	dB
LA33.30	59.2	dB
LA50.00	57.8	dB
LA66.60	55.8	dB
LA90.00	52.1	dB

Summary

File Name on Meter	LxT_Data.017.s
File Name on PC	LxT_0003897-20220721 110044-LxT_Data.017.ldbin
Serial Number	0003897
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	Measurement 2
Job Description	9999 Santee Auto Center
Note	

Measurement

Description	
Start	2022-07-21 11:00:44
Stop	2022-07-21 11:15:48
Duration	00:15:04.2
Run Time	00:15:00.8
Pause	00:00:03.4
Pre-Calibration	2022-07-21 10:59:49
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Linear
Overload	144.1 dB

	A	C	Z
Under Range Peak	**100.4**	97.4	102.4 dB
Under Range Limit	**49.4**	47.4	55.4 dB
Noise Floor	36.2	36.9	44.5 dB

Results

LAeq	58.8	
LAE	88.3	
EA	75.948 µPa²h	
EA8	2.428 mPa²h	
EA40	12.141 mPa²h	
LApeak (max)	2022-07-21 11:11:25	96.2 dB
LASmax	2022-07-21 11:13:45	77.7 dB
LASmin	2022-07-21 11:09:59	46.1 dB
SEA	-99.9 dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	30	151.8 s
LAS > 70.0 dB (Exceedance Counts / Duration)	1	12.0 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCeq	72.1 dB	
LAeq	58.8 dB	
LCeq - LAeq	13.3 dB	
LAleq	61.5 dB	
LAeq	58.8 dB	
LAleq - LAeq	2.7 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	58.8		72.1			
LS(max)	77.7	2022/07/21 11:13:45				
LS(min)	46.1	2022/07/21 11:09:59				
LPeak(max)	96.2	2022/07/21 11:11:25				

Overload Count	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5 dB	5 dB
Threshold	90 dB	80 dB
Criterion Level	90 dB	90 dB
Criterion Duration	8 h	8 h

Results

Dose	-99.94 %	-99.94 %
Projected Dose	-99.94 %	-99.94 %
TWA (Projected)	-99.9 dB	-99.9 dB
TWA (t)	-99.9 dB	-99.9 dB
Lep (t)	43.8 dB	43.8 dB

Statistics

LA5.00	62.6 dB
LA10.00	60.7 dB
LA33.30	56.4 dB
LA50.00	54.7 dB
LA66.60	53.2 dB
LA90.00	49.9 dB

Summary

File Name on Meter	LxT_Data.020.s
File Name on PC	LxT_0003897-20220721 120715-LxT_Data.020.ldbin
Serial Number	0003897
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	Measurement 3
Job Description	9999 Santee Auto Center
Note	

Measurement

Description	
Start	2022-07-21 12:07:15
Stop	2022-07-21 12:22:16
Duration	00:15:00.7
Run Time	00:15:00.7
Pause	00:00:00.0
Pre-Calibration	2022-07-21 10:59:45
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Linear
Overload	144.1 dB

	A	C	Z
Under Range Peak	**100.4**	97.4	102.4 dB
Under Range Limit	**49.4**	47.4	55.4 dB
Noise Floor	36.2	36.9	44.5 dB

Results

LAeq	48.1	
LAE	77.6	
EA	6.417 µPa²h	
EA8	205.199 µPa²h	
EA40	1.026 mPa²h	
LApeak (max)	2022-07-21 12:07:32	91.4 dB
LASmax	2022-07-21 12:09:43	60.5 dB
LASmin	2022-07-21 12:17:43	42.1 dB
SEA	-99.9 dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	2	1.8 s
LAS > 70.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCeq	63.8 dB	
LAeq	48.1 dB	
LCeq - LAeq	15.7 dB	
LAleq	52.3 dB	
LAeq	48.1 dB	
LAleq - LAeq	4.3 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	48.1		63.8			
LS(max)	60.5	2022/07/21 12:09:43				
LS(min)	42.1	2022/07/21 12:17:43				
LPeak(max)	91.4	2022/07/21 12:07:32				

Overload Count	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5 dB	5 dB
Threshold	90 dB	80 dB
Criterion Level	90 dB	90 dB
Criterion Duration	8 h	8 h

Results

Dose	-99.94	-99.94 %
Projected Dose	-99.94	-99.94 %
TWA (Projected)	-99.9	-99.9 dB
TWA (t)	-99.9	-99.9 dB
Lep (t)	33.0	33.0 dB

Statistics

LA5.00	52.9 dB
LA10.00	50.8 dB
LA33.30	47.3 dB
LA50.00	45.8 dB
LA66.60	44.8 dB
LA90.00	43.5 dB

Summary

File Name on Meter	LxT_Data.019.s
File Name on PC	LxT_0003897-20220721 114813-LxT_Data.019.ldbin
Serial Number	0003897
Model	SoundTrack LxT®
Firmware Version	2.302
User	
Location	Measurement 4
Job Description	9999 Santee Auto Center
Note	

Measurement

Description	
Start	2022-07-21 11:48:13
Stop	2022-07-21 12:03:38
Duration	00:15:24.9
Run Time	00:15:24.9
Pause	00:00:00.0
Pre-Calibration	2022-07-21 10:59:45
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting
Peak Weight	A Weighting
Detector	Slow
Preamplifier	PRMLxT1
Microphone Correction	Off
Integration Method	Linear
Overload	144.1 dB

	A	C	Z
Under Range Peak	**100.4**	97.4	102.4 dB
Under Range Limit	**49.4**	47.4	55.4 dB
Noise Floor	36.2	36.9	44.5 dB

Results

LAeq	56.6	
LAE	86.2	
EA	46.824 µPa²h	
EA8	1.458 mPa²h	
EA40	7.290 mPa²h	
LApeak (max)	2022-07-21 11:50:47	93.9 dB
LASmax	2022-07-21 12:00:05	72.1 dB
LASmin	2022-07-21 12:02:17	46.9 dB
SEA	-99.9 dB	
LAS > 60.0 dB (Exceedance Counts / Duration)	7	65.2 s
LAS > 70.0 dB (Exceedance Counts / Duration)	2	9.7 s
LApeak > 135.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 137.0 dB (Exceedance Counts / Duration)	0	0.0 s
LApeak > 140.0 dB (Exceedance Counts / Duration)	0	0.0 s
LCeq	70.5 dB	
LAeq	56.6 dB	
LCeq - LAeq	14.0 dB	
LAleq	59.4 dB	
LAeq	56.6 dB	
LAleq - LAeq	2.8 dB	

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
Leq	56.6		70.5			
LS(max)	72.1	2022/07/21 12:00:05				
LS(min)	46.9	2022/07/21 12:02:17				
LPeak(max)	93.9	2022/07/21 11:50:47				

Overload Count	0
Overload Duration	0.0 s

Dose Settings

Dose Name	OSHA-1	OSHA-2
Exchange Rate	5	5 dB
Threshold	90	80 dB
Criterion Level	90	90 dB
Criterion Duration	8	8 h

Results

Dose	-99.94	-99.94 %
Projected Dose	-99.94	-99.94 %
TWA (Projected)	-99.9	-99.9 dB
TWA (t)	-99.9	-99.9 dB
Lep (t)	41.7	41.7 dB

Statistics

LA5.00	60.9 dB
LA10.00	57.1 dB
LA33.30	53.9 dB
LA50.00	52.6 dB
LA66.60	51.5 dB
LA90.00	49.6 dB

ATTACHMENT 2

Noise Specifications

Product Catalog

Packaged Rooftop Air Conditioners Precedent™ Cooling and Gas/Electric

3 to 10 Tons - 60 Hz

December 2022

RT-PRC023AY-EN

General Data

Table 5. General data — 3 to 5 tons — standard efficiency

	3 Tons	4 Tons	5 Tons
	T/YSC036G3,4,W	T/YSC048G3,4,W	T/YSC060G3,4,W
Cooling Performance[a]			
Gross Cooling Capacity	37,000	49,000	60,000
EER/SEER[b]	12.0/14.0	12.0/14.0	12.0/14.0
EER2/SEER2[c]	10.6/13.4	10.6/13.4	10.6/13.4
Nominal cfm/AHRI Rated cfm	1,200/1,200	1,600/1,600	2,000/2,000
AHRI Net Cooling Capacity	36,000	48,000	58,500
System Power (kW)	3.00	4.00	4.88
Compressor			
Number/Type	1/Scroll	1/Scroll	1/Scroll
Sound			
Outdoor Sound Rating (dB)[d]	79	80	81
Outdoor Coil			
Type	Microchannel	Microchannel	Microchannel
Configuration	Full Face	Full Face	Full Face
Tube Size (in.)	0.63	0.63	1.00
Face Area (sq. ft.)	10.50	10.50	11.90
Rows/FPI (Fins per inch)	1/23	1/23	1/23
Indoor Coil			
Type	Microchannel	Microchannel	Microchannel
Configuration	Full Face	Full Face	Full Face
Tube Size (in.)	0.63	0.63	0.81
Face Area (sq. ft.)	6.98	6.98	8.15
Rows/FPI (Fins per inch)	2/16	2/16	2/16
Refrigerant Control	Thermal Expansion Valve	Thermal Expansion Valve	Thermal Expansion Valve
Drain Connection No./Size (in.)	1¾ NPT	1¾ NPT	1¾ NPT
Outdoor Fan			
Type	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/22	1/22	1/22
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1
CFM	3,600	4,050	3950
Motor HP	0.25	0.33	0.40
Motor RPM	1,100	1,100	1100
Indoor Fan			
Type (Standard)	FC Centrifugal	FC Centrifugal	FC Centrifugal
No. Used/Diameter (in.)/Width (in.)	1	1	1
Drive Type/No. Speeds/RPM	11x11	11x11	11x11
Number Motors	Direct/5[e]	Direct/5[e]	Direct/5[e]
Motor HP	0.75/1.5	1.0/1.5	1.0/1.5
Motor Frame Size	48	48	48
Filters[f]			
Type Furnished	Throwaway	Throwaway	Throwaway
Number Size Recommended	(2) 20x35x2	(2) 20x35x2	(2) 20x35x2
Refrigerant Charge[g]			
lbs of R-410A	3.2	3.5	4.8
Heating Performance (Gas/Electric Only)[h]			
Heating Input			
Low Heat Input (Btu)	80,000 / 56,000	80,000 / 56,000	80,000 / 56,000
Mid Heat Input (Btu)	100,000 / 70,000	100,000 / 70,000	100,000 / 70,000

Table 5. General data — 3 to 5 tons — standard efficiency (continued)

	3 Tons	4 Tons	5 Tons
	T/YSC036G3,4,W	T/YSC048G3,4,W	T/YSC060G3,4,W
High Heat Input (Btu)	120,000 / 84,000	130,000 / 91,000	150,000 / 105,000
Heating Output			
Low Heat Output (Btu)	64,800 / 45,300	64,800 / 45,300	64,800 / 45,300
Mid Heat Output (Btu)	81,000 / 56,700	81,000 / 56,700	81,000 / 56,700
High Heat Output (Btu)	97,200 / 68,000	105,300 / 73,700	121,500 / 85,100
Steady State Efficiency %			
Low Heat Input (Btu)	81	81	81
Mid Heat Input (Btu)	81	81	81
High Heat Input (Btu)	81	81	81
No. Burners			
Low Heat Output (Btu)	2	2	2
Mid Heat Output (Btu)	3	3	3
High Heat Output (Btu)	4	4	4
No. Stages			
Low Heat Input (Btu)	2	2	2
Mid Heat Input (Btu)	2	2	2
High Heat Input (Btu)	2	2	2
Gas Supply Line Pressure			
Natural (minimum/maximum)	4.5/14.0	4.5/14.0	4.5/14.0
LP (minimum/maximum)	11.0/14.0	11.0/14.0	11.0/14.0
Gas Connection Pipe Size (in.)			
Low Heat	1/2	1/2	1/2
Mid Heat	1/2	1/2	1/2
High Heat	3/4	3/4	3/4

(a) Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on AHRI Standard 210/240.

(b) EER and/or SEER are rated at AHRI conditions and in accordance with DOE test procedures.

(c) EER2 and SEER2 is rated at AHRI conditions and calculated in accordance with AHRI Standard 210/240-2023. Airflow and net cooling capacity not shown.

(d) Outdoor sound rating shown is tested in accordance with AHRI Standard 270. For additional information reference the outdoor sound power level data in the performance section.

(e) For multispeed direct drive rpm TSC/YSC values, reference the direct drive, evaporator fan performance data.

(f) Optional 2" MERV 8 and MERV 13 filters also available.

(g) Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

(h) Heating performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Applicable to gas/electric units only.

Table 6. General data — 6 to 10 tons — standard efficiency

	6 Tons	7.5 Tons	7.5 Tons	8.5 Tons	10 Tons
	T/YSC072H3,4,W	Single Compressor T/YSC090H3,4,W	Dual Compressor T/YSC092H3,4,W	T/YSC102H3,4,W	T/YSC120H3,4,W
Cooling Performance[a]					
Gross Cooling Capacity	75,000	92,500	94,800	107,200	116,000
EER[b]	11.2	11.2	11.2	11.2	11.2
Nominal cfm/AHRI Rated cfm	2,400/2,100	3,000/2,400	3,000/2,325	3,400/2,720	4,000/4,000
AHRI Net Cooling Capacity	71,000	87,000	90,000	102,000	113,000
IEER (T/Y)[c]	12.9 / 12.7	12.9 / 12.7	12.9/12.7[d]	12.9 / 12.7[e]	12.9/12.7
System Power (kW)	6.36	7.77	8.04	9.11	10.09
Compressor					
Number/Type	1/Scroll	1/Scroll	2/Scroll	2/Scroll	2/Scroll
Sound					
Outdoor Sound Rating (dB)[f]	89	89	91	88	88
Outdoor Coil					
Type	Microchannel	Microchannel	Microchannel	Microchannel	Microchannel
Configuration	Full Face	Full Face	Face-split	Face-Split	Face Split
Tube Size (in.)	0.71	1.00	0.71	1	1
Face Area (sq. ft.)	16.91	16.91	17.31	20.77	20.77
Rows/FPI (Fins per inch)	1/23	1/21	1/23	1/21	1/20
Indoor Coil					
Type	Lanced	Lanced	Lanced	Lanced	Lanced
Configuration	Full Face	Full Face	Face-split	Intertwined	Intertwined
Tube Size (in.)	0.3125	0.3125	0.3125	0.3125	0.3125
Face Area (sq. ft.)	9.89	9.89	12.36	12.36	12.36
Rows/FPI (Fins per inch)	3/16	4/16	3/16	4/16	4/16
Refrigerant Control	Thermal Expansion Valve	Thermal Expansion Valve	Thermal Expansion Valve	Thermal Expansion Valve	Thermal Expansion Valve
Drain Connection No./Size (in.)	1¾ NPT	1¾ NPT	1¾ NPT	1¾ NPT	1¾ NPT
Outdoor Fan					
Type	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/26	1/26	1/26	1/26	1/26
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
CFM	6,037	6400	6600	6680	6800
Motor HP	0.70	0.70	0.70	0.70	0.70
Motor RPM	1,100	1,100	1,100	1,100	1,100
Indoor Fan					
Type	FC Centrifugal	FC Centrifugal	FC Centrifugal[g]	FC Centrifugal[g]	BC Plenum
No. Used/Diameter (in.)/Width (in.)	1/12x12	1/12x12	1/15x15[h]	1/15x15[h]	1/17.7x6.17
Drive Type/No. Speeds/RPM	Belt/Variable/1,750	Belt/Variable/1,750	Belt/Variable/1,750[i]	Belt/Variable/1,750[i]	Direct/Variable[f]
Motor HP (Standard/Oversized)	1.0/2.0	1.0/3.0	1.0/3.0[j]	2.0/3.0[j]	3.45/-
Motor Frame Size (Standard/Oversized)	56/56	56/56	56/56	56/56	—/—
Filters[k]					
Type Furnished	Throwaway	Throwaway	Throwaway	Throwaway	Throwaway
Number Size Recommended	(4) 16x25x2	(4) 16x25x2	(4) 20x25x2	(4) 20x25x2	(4) 20x25x2
Refrigerant Charge[l]					
lbs of R-410A	5.5	7.5	3.8/3.6	5.9/4.0	5.6/4.4
Heating Performance (Gas/Electric Only)[m]					
Heating Input					
Low Heat Input (Btu)	80,000	120,000	120,000	120,000	150,000/105,000
Mid Heat Input (Btu)	120,000	150,000/105,000	150,000/105,000	150,000/105,000	200,000/140,000
High Heat Input (Btu)	150,000/105,000	200,000/140,000	200,000/140,000	200,000/140,000	235,000/164,500

Table 6. General data — 6 to 10 tons — standard efficiency (continued)

	6 Tons	7.5 Tons	7.5 Tons	8.5 Tons	10 Tons
	T/YSC072H3,4,W	Single Compressor T/YSC090H3,4,W	Dual Compressor T/YSC092H3,4,W	T/YSC102H3,4,W	T/YSC120H3,4,W
Heating Output					
Low Heat Output (Btu)	64,000	96,000	96,000[n]	96,000[n]	120,000/84,000
Mid Heat Output (Btu)	96,000	120,000/84,000	120,000/84,000[n]	120,000/84,000[n]	160,000/112,000
High Heat Output (Btu)	120,000/84,000	160,000/112,000	160,000/112,000[n]	160,000/112,000[n]	188,000/131,600
Steady State Efficiency %					
Low Heat Input (Btu)	80	80	80[o]	80[o]	80
Mid Heat Input (Btu)	80	80	80[o]	80[o]	80
High Heat Input (Btu)	80	80	80[o]	80[o]	80
No. Burners					
Low Heat Output (Btu)	2	3	3	3	3
Mid Heat Output (Btu)	3	3	3	3	4
High Heat Output (Btu)	3	4	4[p]	4[p]	5
No. Stages					
Low Heat Input (Btu)	1	1	1	1	2
Mid Heat Input (Btu)	1	2	2	2	2
High Heat Input (Btu)	2	2	2	2	2
Gas Supply Line Pressure					
Natural (minimum/maximum)	4.5/14.0	4.5/14.0	4.5/14.0	4.5/14.0	4.5/14.0
LP (minimum/maximum)	11.0/14.0	11.0/14.0	11.0/14.0	11.0/14.0	11.0/14.0
Gas Connection Pipe Size (in.)					
Low Heat	1/2	1/2	1/2	1/2	3/4
Mid Heat	1/2	3/4	3/4	3/4	3/4
High Heat	3/4	3/4	3/4	3/4	3/4

[a] Cooling performance is rated at 95°F ambient, 80°F entering dry bulb, 67°F entering wet bulb. Gross capacity does not include the effect of fan motor heat. AHRI capacity is net and includes the effect of fan motor heat. Units are suitable for operation to ±20% of nominal cfm. Units are certified in accordance with the Unitary Air-Conditioner Equipment certification program, which is based on AHRI Standard 340/360.

[b] EER is rated at AHRI conditions and in accordance with DOE test procedures.

[c] Integrated Efficiency Ratio (IEER) is rated in accordance with AHRI Standard 340/360. The IEER rating requires that the unit efficiency be determined at 100%, 75%, 50% and 25% load (net capacity) at the specified in AHRI Standard.

[d] 13.7 IEER for SZVAV option, 13.4 IEER for Title24 2 speed fan option.

[e] 14.2 IEER for SZVAV option, 13.4 IEER for Title24 2 speed fan option.

[f] Outdoor sound rating shown is tested in accordance with AHRI Standard 270. For additional information reference the outdoor sound power level data in the performance section.

[g] For SZVAV / Title 24 Option, Backward Airfoil Plenum.

[h] For SZVAV / Title 24 Option, 1/23.03.

[i] For SZVAV / Title 24 Option, Plenum/Variable/1,700.

[j] For SZVAV / Title 24 Option, 2.75.

[k] Optional 2" MERV 8 and MERV 13 filters also available.

[l] Refrigerant charge is an approximate value. For a more precise value, see unit nameplate and service instructions.

[m] Heating performance limit settings and rating data were established and approved under laboratory test conditions using American National Standards Institute standards. Ratings shown are for elevations up to 2000 feet. For elevations above 2000 feet, ratings should be reduced at the rate of 4% for each 1000 feet above sea level. Applicable to gas/electric units only.

[n] For SZVAV / Title24 Option, Low = 97,200, Mid = 121,500, High = 162,000.

[o] For SZVAV / Title24 Option, Steady State Efficiency = 81%.

[p] 5 burners for SZVAV / Title24 Option.

Product Catalog

Packaged Rooftop Air Conditioners Precedent™ Cooling and Gas/Electric

Standard Efficiency

6 to 25 Tons — 60 Hz

September 2022

RT-PRC098B-EN

General Data

Table 3. General data— 6 to 12.5 tons— standard efficiency

	6 Tons	7.5 Tons	8.5 Tons	10 Tons	12.5 Tons
	YSJ072	YSJ090	YSJ102	YSJ120	YSJ150
Cooling Performance					
Gross Cooling Capacity	73000	91000	104000	123000	154000
EER	11.0	11.0	11.0	11.0	10.8
Nominal cfm/AHRI Rated cfm	1860	2475	2975	3700	4875
AHRI Net Cooling Capacity	72000	90000	102000	120000	148000
IEER (2-Speed)	14.6	14.6	14.6	14.6	14.0
IEER (SZVAV/MZVAV)	15.1/15.1	15.1/15.1	15.1/15.1	15.1/15.1	14.5/14.5
System Power (kW)	6.55	8.18	9.27	10.91	13.70
Compressor					
Number/Type	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll
Percent Capacity (Stage 1 - Stage 3)	32/68/100	33/67/100	32/68/100	28/72/100	32/68/100
Sound					
Outdoor Sound Rating (dBA)	86	86	86	86	89
Outdoor Coil					
Type	Microchannel	Microchannel	Microchannel	Microchannel	Microchannel
Configuration	Full Face	Full Face	Full Face	Full Face	Full Face
Tube Size (in.)	0.7	0.7	1.0	1.0	1.0
Face Area (sq. ft.)	21.64	21.64	21.64	21.64	28.32
Rows/FPI (Fins per inch)	1/23	1/23	1/23	1/23	1/23
Indoor Coil					
Type	Microchannel	Microchannel	Microchannel	Microchannel	Microchannel
Configuration	Full Face	Full Face	Full Face	Full Face	Full Face
Tube Size (in.)	1.0	1.0	1.0	1.0	1.0
Face Area (sq. ft.)	11.84	11.84	11.84	11.84	14.27
Rows/FPI (Fins per inch)	2/18	2/18	2/18	2/18	2/18
Refrigerant Control	TXV	TXV	TXV	TXV	TXV
Drain Connection No./Size (in.) NPT	1/0.75	1/0.75	1/0.75	1/0.75	1/0.75
Reheat Coil					
Type	Microchannel	Microchannel	Microchannel	Microchannel	Microchannel
Configuration	Full Face	Full Face	Full Face	Full Face	Full Face
Tube Size (in.)	0.6	0.6	0.6	0.6	0.6
Face Area (sq. ft.)	9.04	9.04	9.04	9.04	11.82
Rows/FPI (Fins per inch)	1/23	1/23	1/23	1/23	1/23
Outdoor Fan					
Type	Propeller	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	1/26	1/26	1/26	1/26	1/30
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1	Direct/1
CFM	5900	5900	5900	6700	8200
Motor HP	0.70	0.70	0.70	0.75	1.00
Motor RPM	1100	1100	1100	1100	1100
Indoor Fan					
Type	BC Plenum	BC Plenum	BC Plenum	BC Plenum	BC Plenum

Table 3. General data— 6 to 12.5 tons— standard efficiency (continued)

	6 Tons	7.5 Tons	8.5 Tons	10 Tons	12.5 Tons
	YSJ072	YSJ090	YSJ102	YSJ120	YSJ150
No. Used/Diameter (in.)/Width (in.)	1/23x6	1/23x6	1/23x6	1/23x6	1/23x6
Drive Type/No. Speeds/RPM	Direct/Variable	Direct/Variable	Direct/Variable	Direct/Variable	Direct/Variable
Motor HP (Standard/Oversized)	3.1 / –	3.1 / –	3.1 / –	3.1 / 4.6	4.6 / –
Max Motor RPM	1850	1850	1850	1850 / 1940	1940
Filters[a]					
Type Furnished	Throwaway	Throwaway	Throwaway	Throwaway	Throwaway
Number Size Recommended	(2) 18 x 24 x 2 (3) 24 x 16 x 2	(2) 18 x 24 x 2 (3) 24 x 16 x 2	(2) 18 x 24 x 2 (3) 24 x 16 x 2	(2) 18 x 24 x 2 (3) 24 x 16 x 2	(3) 18 x 18 x 2 (3) 24 x 18 x 2
Refrigerant Charge					
lbs of R-410A	9.0	9.0	9.5	10.1	11.4
lbs of R-410A, Hot Gas Reheat	10.3	9.6	10.1	10.7	11.6
Heating Performance (Gas/Electric Only)					
Heating Input					
Low Heat Input (Btu) (High/Low Stage)	80,000/56,000	120,000/84,000	120,000/84,000	150,000/105,000	150,000/105,000
Mid Heat Input (Btu) (High/Low Stage)	120,000/84,000	150,000/105,000	150,000/105,000	200,000/140,000	200,000/140,000
High Heat Input (Btu) (High/Low Stage)	150,000/105,000	200,000/140,000	200,000/140,000	240,000/168,000	250,000/175,000
Heating Output					
Low Heat Output (Btu) (High/Low Stage)	64,800/45,300	97,200/68,000	97,200/68,000	121,500/85,000	121,500/85,000
Mid Heat Output (Btu) (High/Low Stage)	97,200/68,000	121,500/85,000	121,500/85,000	162,000/113,400	162,000/113,400
High Heat Output (Btu) (High/Low Stage)	121,500/85,000	162,000/113,400	162,000/113,400	194,400/136,000	202,500/141,750
Steady State Efficiency %					
Low Heat Input (Btu)	81	81	81	81	81
Mid Heat Input (Btu)	81	81	81	81	81
High Heat Input (Btu)	81	81	81	81	81
No. Burners					
Low Heat Output (Btu)	3	3	3	4	4
Mid Heat Output (Btu)	3	4	4	6	4
High Heat Output (Btu)	4	6	6	6	6
No. Stages					
Low Heat Input (Btu)	2	2	2	2	2
Mid Heat Input (Btu)	2	2	2	2	2
High Heat Input (Btu)	2	2	2	2	2
Gas Supply Line Pressure (InWC)					
Natural (minimum/maximum)	4.5/14.0	4.5/14.0	4.5/14.0	4.5/14.0	4.5/14.0
LP (minimum/maximum)	11.5/14.0	11.5/14.0	11.5/14.0	11.5/14.0	11.5/14.0
Gas Connection Pipe Size (in.)					
Low Heat	1/2	3/4	3/4	3/4	3/4
Mid Heat	3/4	3/4	3/4	3/4	3/4
High Heat	3/4	3/4	3/4	3/4	3/4
Cabinet					
Cabinet Size	B0	B0	B0	B0	C0

[a] Outdoor sound rating shown is tested in accordance with AHRI 370-2015. For additional information reference the outdoor sound power level data in the performance section.

General Data

Table 4. General data— 15 to 25 tons— standard efficiency

	15 Tons	17.5 Tons	20 Tons	25 Tons
	YSJ180	YSJ210	YSJ240	YSJ300
Cooling Performance				
Gross Cooling Capacity	185000	215000	24700	282000
EER	10.8	10.8	9.8	9.8
Nominal cfm/AHRI Rated cfm	5250	6650	8000	10000
AHRI Net Cooling Capacity	182000	210000	240000	271000
IEER (2-Speed)	14	14.0	13.0	13.0
IEER (SZVAV/MZVAV)	14.5 / 14.5	14.5 / 14.5	13.5 / 13.5	13.5 / 13.5
System Power (kW)	16.85	19.44	24.49	27.65
Compressor				
Number/Type	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll	2/Manifold Scroll
Percent Capacity (Stage 1 - Stage 4)	33/67/100/NA	33/67/100/NA	24/36/64/100	25/37/63/100
Sound				
Outdoor Sound Rating (dBA)	87	91	91	93
Outdoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Configuration	Full Face	Full Face	Full Face	Full Face
Tube Size (in.)	0.71	0.71	1.0	1.0
Face Area (sq. ft.)	33.90	33.90	33.89	33.89
Rows/FPI (Fins per inch)	1/23	1/23	1/21	1/21
Indoor Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Configuration	Full Face	Full Face	Full Face	Full Face
Tube Size (in.)	1.0	1.0	1.0	1.0
Face Area (sq. ft.)	23.93	23.93	23.93	23.93
Rows/FPI (Fins per inch)	2/18	2/18	2/18	2/18
Refrigerant Control	TXV	TXV	TXV	TXV
STD. Drain Connection No./Size (in.)	1/1.00 PVC Female	1/1.00 PVC Female	1/1.00 PVC Female	1/1.00 PVC Female
Stainless Drain Connection No./Size (in.)	1/1.00 NPT	1/1.00 NPT	1/1.00 NPT	1/1.00 NPT
Reheat Coil				
Type	Microchannel	Microchannel	Microchannel	Microchannel
Configuration	Full Face	Full Face	Full Face	Full Face
Tube Size (in.)	0.6	0.6	0.6	0.6
Face Area (sq. ft.)	21.83	21.83	21.83	21.83
Rows/FPI (Fins per inch)	1/23	1/23	1/23	1/23
Outdoor Fan				
Type	Propeller	Propeller	Propeller	Propeller
No. Used/Diameter (in.)	2/26x3	2/26x4	2/26x4	2/28x4
Drive Type/No. Speeds	Direct/1	Direct/1	Direct/1	Direct/1
CFM	11520	14660	14220	16600
Motor HP	2/0.50	2/1.0	2/1.0	2/1.0
Motor RPM	1125	1125	1125	1125
Indoor Fan				
Type	BC Plenum	BC Plenum	BC Plenum	BC Plenum
No. Used/Diameter (in.)/Width (in.)	2/23x6	2/23x6	2/23x6	2/23x6

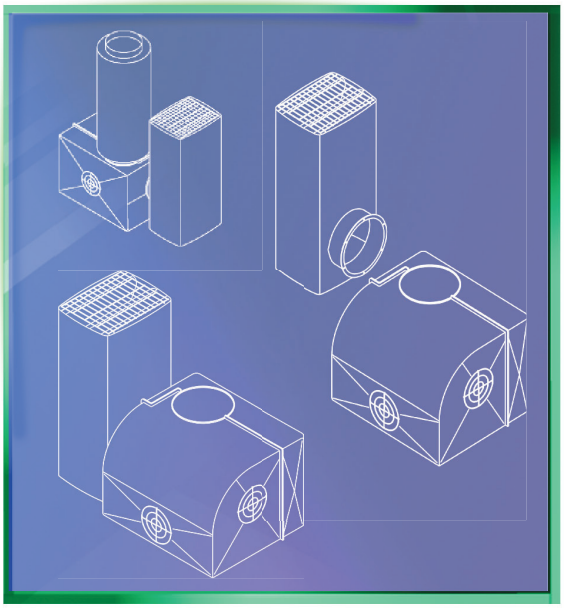
Table 4. General data— 15 to 25 tons— standard efficiency (continued)

	15 Tons	17.5 Tons	20 Tons	25 Tons
	YSJ180	YSJ210	YSJ240	YSJ300
Drive Type/No. Speeds/RPM	Direct/Variable	Direct/Variable	Direct/Variable	Direct/Variable
Motor HP (Standard/Oversized)	3.1 / –	3.1 / –	3.1 / –	3.1 / 4.6
Max Motor RPM	1850	1850	1850	1850 / 1940
Filters[a]				
Motor Frame Size (Standard/Oversized)	– / –	– / –	– / –	– / –
Type Furnished	Throwaway	Throwaway	Throwaway	Throwaway
Number Size Recommended	(8) 20 x 24 x 2	(8) 20 x 24 x 2	(8) 20 x 24 x 2	(8) 20 x 24 x 2
Refrigerant Charge				
lbs of R-410A	14.5	14.2	16.6	16.9
lbs of R-410A, Hot Gas Reheat	15.8	15.0	17.2	17.7
Heating Performance (Gas/Electric Only)				
Heating Input				
Low Heat Input (Btu) (High/Low Stage)	250,000/175,000	250,000/175,000	250,000/175,000	250,000/175,000
Mid Heat Input (Btu) (High/Low Stage)	320,000/224,000	320,000/224,000	320,000/224,000	320,000/224,000
High Heat Input (Btu) (High/Low Stage)	400,000/280,000	400,000/280,000	400,000/280,000	400,000/280,000
Heating Output				
Low Heat Input (Btu) (High/Low Stage)	202,500/141,750	202,500/141,750	202,500/141,750	202,500/141,750
Mid Heat Input (Btu) (High/Low Stage)	259,200/181,440	259,200/181,440	259,200/181,440	259,200/181,440
High Heat Input (Btu) (High/Low Stage)	324,000/226,800	324,000/226,800	324,000/226,800	324,000/226,800
Steady State Efficiency %				
Low Heat Input (Btu)	81	81	81	81
Mid Heat Input (Btu)	81	81	81	81
High Heat Input (Btu)	81	81	81	81
No. Burners				
Low Heat Output (Btu)	5	5	5	5
Mid Heat Output (Btu)	7	7	7	7
High Heat Output (Btu)	8	8	8	8
No. Stages				
Low Heat Input (Btu)	2	2	2	2
Mid Heat Input (Btu)	2	2	2	2
High Heat Input (Btu)	2	2	2	2
Gas Supply Line Pressure (InWC)				
Natural (minimum/maximum) Low Heat	4.5/14.0	4.5/14.0	4.5/14.0	4.5/14.0
Natural (minimum/maximum) Mid Heat	4.5/14.0	4.5/14.0	4.5/14.0	4.5/14.0
Natural (minimum/maximum) High Heat	6.0/14.0	6.0/14.0	6.0/14.0	6.0/14.0
LP (minimum/maximum)	11.5/14.0	11.5/14.0	11.5/14.0	11.5/14.0
Gas Connection Pipe Size (in.)				
Low Heat	3/4	3/4	3/4	3/4
Mid Heat	3/4	3/4	3/4	3/4
High Heat	3/4	3/4	3/4	3/4
Cabinet				
Cabinet Size	D0	D0	D0	D0

[a] Outdoor sound rating shown is tested in accordance with AHRI 370-2015. For additional information reference the outdoor sound power level data in the performance section.

Proto-Vest Inc.®

SILENCER PACKAGE | *Reduce Blower Motor Noise*



Features & Benefits

- Reduces noise to meet OSHA regulations
- Decreases noise generated by the impeller, rapidly moving air drawn into the blower and discharged air from the blower assembly
- Easy Installation
- Requires very low maintenance
- Available option for any Proto-Vest dryer

10x Quieter!

Lowers Noise Levels by about 10 Decibels

Why the Proto-Vest Silencer Package?

The Proto-Vest Silencer Package is compatible with all of Proto-Vest dryers, enabling our systems to meet and exceed OSHA noise regulations. Using state-of-the-art materials, which require virtually no maintenance, Proto-Vest has designed three components to comprise the Silencer Package.

Blower Inlet:
Captures the noise escaping the inlet area of the blower assembly.

Blower-motor Cover:
Houses the blower and motor completely to absorb noise emitted from the motor and impeller while providing the assembly additional protection.

Riser Can:
Absorbs the noise created by the blower assembly and the movement of the air as it leaves the blower advancing through the dryer's plenum.

The Ultimate in Drying Technology!

SILENCER PACKAGE

Reduce Blower Motor Noise

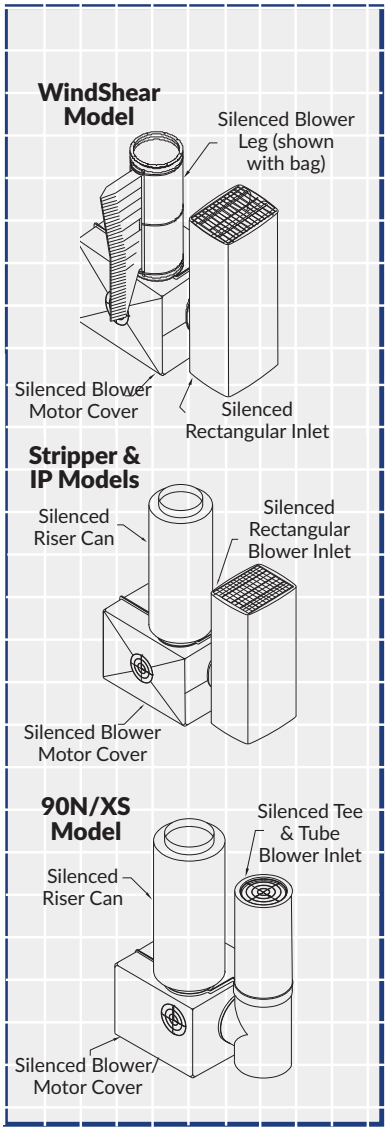
General Description

The Proto-Vest "Silencer Package" was developed to enable our dryers to meet OSHA, federal, state and local noise reduction standards. The OSHA permissible noise exposure is 85 dB for an 8-hour shift. By reducing noise levels into the 70 dB to 80 dB range, you can be assured of a pleasant environment for both your employees and customers. The Silencer Package reduces decibel levels on Proto-Vest dryers on an average of 10 decibels making them approximately 10 times quieter than the un-silenced models! The Silencing Package is an optional product for any Proto-Vest dryer.

Decibel Level Readings

With Silencer (WS)	Without Silencer (WOS)
Windshear InBay - (2) 30hp Dryer:	
WS: 10 ft=88 dBa;	WOS: 10 ft=94 dBa
WS: 20 ft=82 dBa;	WOS: 20 ft=88 dBa
WS: 30 ft=78.4 dBa;	WOS: 30 ft=84.5 dBa
WS: 40 ft=76 dBa;	WOS: 40 ft=82 dBa
WS: 50 ft=74 dBa;	WOS: 50 ft=80 dBa
WS: 60 ft=72.4 dBa;	WOS: 60 ft=78.4 dBa
Windshear - 30hp Dryer:	
WS: 10 ft=76.9 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=70.9 dBa;	WOS: 20 ft=84.9 dBa
WS: 30 ft=67.4 dBa;	WOS: 30 ft=81.4 dBa
WS: 40 ft=64.9 dBa;	WOS: 40 ft=78.9 dBa
WS: 50 ft=63 dBa;	WOS: 50 ft=77 dBa
Windshear II - (2) 30hp Dryer:	
WS: 10 ft=88 dBa;	WOS: 10 ft=99 dBa
WS: 20 ft=81.9 dBa;	WOS: 20 ft=92.9 dBa
WS: 30 ft=78.4 dBa;	WOS: 30 ft=89.4 dBa
WS: 40 ft=75.4 dBa;	WOS: 40 ft=86.9 dBa
WS: 50 ft=74 dBa;	WOS: 50 ft=85 dBa
S130 - 30hp Dryer:	
WS: 10 ft=76.9 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=70.9 dBa;	WOS: 20 ft=84.9 dBa
WS: 30 ft=67.4 dBa;	WOS: 30 ft=81.4 dBa
WS: 40 ft=64.9 dBa;	WOS: 40 ft=78.9 dBa
WS: 50 ft=63 dBa;	WOS: 50 ft=77 dBa
SideShot - 15hp Dryer:	
WS: 10 ft=74.5 dBa;	WOS: 10 ft=82.9 dBa
WS: 20 ft=68.5 dBa;	WOS: 20 ft=76.9 dBa
WS: 30 ft=64.9 dBa;	WOS: 30 ft=73.4 dBa
WS: 40 ft=62.4 dBa;	WOS: 40 ft=70.9 dBa
WS: 50 ft=60.5 dBa;	WOS: 50 ft=69 dBa
SideShot II - 30hp Dryer:	
WS: 10 ft=76.9 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=70.9 dBa;	WOS: 20 ft=84.9 dBa
WS: 30 ft=67.4 dBa;	WOS: 30 ft=81.4 dBa
WS: 40 ft=64.9 dBa;	WOS: 40 ft=78.9 dBa
WS: 50 ft=63 dBa;	WOS: 50 ft=77 dBa
IP Stripper - 30hp Dryer:	
WS: 10 ft=85 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=79 dBa;	WOS: 20 ft=85 dBa
WS: 30 ft=75.5 dBa;	WOS: 30 ft=81.5 dBa
WS: 40 ft=73 dBa;	WOS: 40 ft=79 dBa
WS: 50 ft=71 dBa;	WOS: 50 ft=77 dBa
IP330 - 30hp Dryer:	
WS: 10 ft=76.9 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=70.9 dBa;	WOS: 20 ft=84.9 dBa
WS: 30 ft=67.4 dBa;	WOS: 30 ft=81.4 dBa
WS: 40 ft=64.9 dBa;	WOS: 40 ft=78.9 dBa
WS: 50 ft=63 dBa;	WOS: 50 ft=77 dBa
IP345 - 45hp Dryer:	
WS: 10 ft=78.9 dBa;	WOS: 10 ft=95.5 dBa
WS: 20 ft=83 dBa;	WOS: 20 ft=89.5 dBa
WS: 30 ft=79.5 dBa;	WOS: 30 ft=85.9 dBa
WS: 40 ft=77 dBa;	WOS: 40 ft=83.5 dBa
WS: 50 ft=75 dBa;	WOS: 50 ft=81.5 dBa
TailWind - 30hp Dryer:	
WS: 10 ft=85 dBa;	WOS: 10 ft=91 dBa
WS: 20 ft=79 dBa;	WOS: 20 ft=85 dBa
WS: 30 ft=75.5 dBa;	WOS: 30 ft=83.5 dBa
WS: 40 ft=73 dBa;	WOS: 40 ft=79 dBa
WS: 50 ft=71 dBa;	WOS: 50 ft=77 dBa
90N/90XS - 15hp Dryers:	
WS: 10 ft=74.5 dBa;	WOS: 10 ft=82.9 dBa
WS: 20 ft=68.5 dBa;	WOS: 20 ft=76.9 dBa
WS: 30 ft=64.9 dBa;	WOS: 30 ft=73.4 dBa
WS: 40 ft=62.4 dBa;	WOS: 40 ft=70.9 dBa
WS: 50 ft=60.5 dBa;	WOS: 50 ft=69 dBa

(Proto-Vest's Silencing Package is standard on all of the Untouchable series.)



Proto-Vest Patents:

U.S.: 3,942,430; 4,161,801; 4,409,035; 4,418,442; 4,433,450; 4,445,251; 4,446,592; 4,589,160; 4,700,426; 5,027,714; 5,184,369; 5,187,881; 5,195,207; 5,280,665; 5,421,102; 5,553,346; 5,886,648; 5,901,461; 5,950,324; 5,960,564; 6,038,781; 6,176,024; 6,519,872; others pending.

Canada: 1,021,996; 1,111,328; 1,190,453; 1,201,040; 1,197,439; 1,219,195; 1,219,192; 1,219,194; 1,258,026; 1,219,193; 2,013,749; 2,071,568; 2,071,239; 2,071,388; others pending.

*Specifications subject to change without notice.
NOTE: Proto-Vest dryer's dimensions will vary with the Silencer Package.

7400 N. Glen Harbor Blvd., Glendale, AZ 85307
800-521-8218 • 623-872-8300 • Fax 623-872-6150
www.protovest.com

Ridgid WD1450 is manufactured in Mexico, has a 6 peak horsepower, 11 AMP motor that produces 150 CFM of airflow. The water lift test was unavailable, but it does run between 85 dB and 87 dB of sound.

ATTACHMENT 3

SoundPLAN Data – Construction Noise

9999 Santee Auto Center
SoundPLAN Data - Construction

Source name	Reference	Construction Phase Noise Level				Corrections		
		Grading	Rock Drilling	Rock Breaking	Rock Crushing	Cwall	CI	CT
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
Grading	Lw/unit	116.3	-	-	-	-	-	-
Rock Area	Lw/unit	-	109.7	116.8	-	-	-	-
Loader	Lw/unit	-	-	-	107.7	-	-	-
Rock Crusher	Lw/unit	-	-	-	119.9	-	-	-

9999 Santee Auto Center
SoundPLAN Data - Construction

No.	Coordinates		Height	Construction Phase			
	X	Y		Grading	Rock Drilling	Rock Breaking	Rock Crushing
	(meters)		(meters)	dB(A)	dB(A)	dB(A)	dB(A)
1	502456.72	3633351.18	108.79	61.9	45.0	52.1	60.7
2	502457.86	3633303.49	108.79	63.3	45.2	52.3	60.7
3	502457.86	3633260.72	108.88	62.7	45.3	52.4	60.3
4	502508.20	3633224.39	109.96	65.7	46.8	53.9	61.7
5	502549.83	3633224.39	110.03	66.7	48.1	55.2	63.5
6	502588.44	3633223.25	110.62	66.9	49.6	56.7	65.2
7	502627.05	3633222.11	111.23	67.0	51.3	58.4	66.7
8	502674.36	3633221.74	111.90	67.2	53.8	60.9	67.3
9	502775.04	3633171.40	115.34	61.8	60.4	67.5	62.6
10	502857.92	3633178.16	114.93	62.2	62.9	70.0	61.4
11	502859.82	3633242.55	116.96	65.1	67.3	74.4	64.2
12	502859.44	3633275.01	117.49	65.0	67.1	74.2	64.5
13	502860.35	3633284.15	116.45	64.1	65.9	73.0	63.8
14	502859.74	3633299.08	115.50	64.2	64.4	71.5	63.6
15	502859.74	3633319.18	114.75	67.4	59.7	66.8	65.1
16	502872.23	3633322.53	113.97	63.3	57.6	64.7	62.8
17	502887.83	3633348.91	113.67	60.1	54.9	62.0	61.1
18	502832.57	3633389.79	113.02	60.9	53.7	60.8	63.1
19	502767.46	3633389.54	112.45	62.4	53.6	60.7	66.7
20	502729.69	3633391.06	111.84	62.7	52.7	59.8	69.3
21	502685.83	3633391.36	111.23	62.8	51.3	58.4	72.1
22	502633.75	3633393.49	110.96	62.8	49.5	56.6	70.9
23	502596.89	3633394.71	110.53	62.6	48.3	55.4	68.1
24	502556.39	3633394.10	110.01	62.4	47.1	54.2	65.4
25	502533.24	3633397.45	109.64	61.7	46.5	53.6	63.9

ATTACHMENT 4

SoundPLAN Data – Operational Noise

Source name	Reference	Sound Power Level - Day		Sound Power Level - Night	Corrections		
		Without Silencer	With Silencer		Cwall	CI	CT
		dB(A)	dB(A)	dB(A)	dB(A)	dB(A)	dB(A)
RTU-1A	Lw/unit	86	86	86	-	-	-
RTU-2A	Lw/unit	86	86	86	-	-	-
RTU-3A	Lw/unit	81	81	81	-	-	-
RTU-4A	Lw/unit	86	86	86	-	-	-
RTU-5A	Lw/unit	86	86	86	-	-	-
RTU-6A	Lw/unit	86	86	86	-	-	-
RTU-7A	Lw/unit	87	87	87	-	-	-
RTU-8A	Lw/unit	87	87	87	-	-	-
RTU-1B	Lw/unit	86	86	86	-	-	-
RTU-2B	Lw/unit	86	86	86	-	-	-
RTU-3B	Lw/unit	81	81	81	-	-	-
RTU-4B	Lw/unit	86	86	86	-	-	-
RTU-5B	Lw/unit	86	86	86	-	-	-
RTU-6B	Lw/unit	86	86	86	-	-	-
RTU-7B	Lw/unit	87	87	87	-	-	-
RTU-8B	Lw/unit	87	87	87	-	-	-
RTU-1C	Lw/unit	86	86	86	-	-	-
RTU-2C	Lw/unit	86	86	86	-	-	-
RTU-3C	Lw/unit	86	86	86	-	-	-
CU-1A	Lw/unit	48	48	48	-	-	-
CU-2A	Lw/unit	48	48	48	-	-	-
CU-3A	Lw/unit	48	48	48	-	-	-
CU-1B	Lw/unit	48	48	48	-	-	-
CU-2B	Lw/unit	48	48	48	-	-	-
CU-3B	Lw/unit	48	48	48	-	-	-
CU-1C	Lw/unit	48	48	48	-	-	-
CU-2C	Lw/unit	48	48	48	-	-	-
Blowers	Lw/unit	113.1	102.1	-	-	-	-
Vacuum1	Lw/unit	77.3	77.3	-	-	-	-
Vacuum2	Lw/unit	77.3	77.3	-	-	-	-
Vacuum3	Lw/unit	77.3	77.3	-	-	-	-
Vacuum4	Lw/unit	77.3	77.3	-	-	-	-
Vacuum5	Lw/unit	77.3	77.3	-	-	-	-
Vacuum6	Lw/unit	77.3	77.3	-	-	-	-
Vacuum7	Lw/unit	77.3	77.3	-	-	-	-
Vacuum8	Lw/unit	77.3	77.3	-	-	-	-
Vacuum9	Lw/unit	77.3	77.3	-	-	-	-
Vacuum10	Lw/unit	77.3	77.3	-	-	-	-
Vacuum11	Lw/unit	77.3	77.3	-	-	-	-
Vacuum12	Lw/unit	77.3	77.3	-	-	-	-
Vacuum13	Lw/unit	77.3	77.3	-	-	-	-
Vacuum14	Lw/unit	77.3	77.3	-	-	-	-
Vacuum15	Lw/unit	77.3	77.3	-	-	-	-
Vacuum16	Lw/unit	77.3	77.3	-	-	-	-
Vacuum17	Lw/unit	77.3	77.3	-	-	-	-
Vacuum18	Lw/unit	77.3	77.3	-	-	-	-
Vacuum19	Lw/unit	77.3	77.3	-	-	-	-
Vacuum20	Lw/unit	77.3	77.3	-	-	-	-
Vacuum21	Lw/unit	77.3	77.3	-	-	-	-
Vacuum22	Lw/unit	77.3	77.3	-	-	-	-
Body Shop A	Lw/unit	115.8	115.8	-	-	-	-
Body Shop B	Lw/unit	115.8	115.8	-	-	-	-
Body Shop C	Lw/unit	115.8	115.8	-	-	-	-
Detail Bay Vacuum 1	Lw/unit	87.0	87.0	-	-	-	-
Detail Bay Vacuum 2	Lw/unit	87.0	87.0	-	-	-	-
Detail Bay Vacuum 3	Lw/unit	87.0	87.0	-	-	-	-
Detail Bay Vacuum 4	Lw/unit	87.0	87.0	-	-	-	-
Detail Bay Vacuum 5	Lw/unit	87.0	87.0	-	-	-	-
Detail Bay Vacuum 6	Lw/unit	87.0	87.0	-	-	-	-

9999 Santee Auto Center
SoundPLAN Data - Operation

	Coordinates				Noise Level - Day		Noise Level - Night
No.	X	Y	Floor	Height	Without Silencer	With Silencer	
1	502456.7	3633351	2.Fl	111.79	49.2	49.0	40.8
2	502457.9	3633303	2.Fl	111.79	50.8	50.7	41.6
3	502457.9	3633261	2.Fl	111.88	51.1	51.0	41.3
4	502508.2	3633224	2.Fl	112.95	54.9	54.8	43.9
5	502549.8	3633224	2.Fl	113.03	58.8	58.8	44.5
6	502588.4	3633223	2.Fl	113.61	60.0	59.9	45.6
7	502627.1	3633222	2.Fl	114.21	59.8	59.8	45.5
8	502674.4	3633222	2.Fl	114.9	58.0	57.9	45.5
9	502775	3633171	2.Fl	118.34	55.7	55.3	46.0
10	502857.9	3633178	2.Fl	117.85	59.6	52.2	41.5
11	502859.8	3633243	2.Fl	119.96	60.2	54.9	45.5
12	502859.4	3633275	2.Fl	119.59	70.4	60.3	44.4
13	502860.4	3633284	2.Fl	119.17	61.1	54.6	43.9
14	502859.7	3633299	2.Fl	118.72	61.0	51.3	43.4
15	502859.7	3633319	2.Fl	117.24	66.1	55.4	42.5
16	502872.2	3633323	2.Fl	116.97	62.4	52.0	42.0
17	502887.8	3633349	2.Fl	116.63	69.5	58.6	40.7
18	502832.6	3633390	2.Fl	116.02	62.5	53.7	41.5
19	502767.5	3633390	2.Fl	115.45	52.7	50.1	42.0
20	502729.7	3633391	2.Fl	114.84	51.5	49.9	42.3
21	502685.8	3633391	2.Fl	114.41	51.1	50.1	43.3
22	502633.8	3633393	2.Fl	113.92	50.4	49.8	43.4
23	502596.9	3633395	2.Fl	113.53	49.7	49.2	42.5
24	502556.4	3633394	2.Fl	113.01	49.1	48.6	42.2
25	502533.2	3633397	2.Fl	112.64	48.6	48.1	40.8

Source name	Noise Level Without Silencer	With Silencer
	dB(A)	
1 1.FI		
Blowers	36.9	25.9
Body Shop A	47.2	47.2
Body Shop B	38.0	38.0
Body Shop C	22.7	22.7
CU-1A	-6.2	-6.2
CU-1B	-18.9	-18.9
CU-1C	-22.1	-22.1
CU-2A	-4.7	-4.7
CU-2B	-18.6	-18.6
CU-2C	-22.2	-22.2
CU-3A	-6.0	-6.0
CU-3B	-16.0	-16.0
Detail Bay Vacuum 1	12.8	12.8
Detail Bay Vacuum 2	13.5	13.5
Detail Bay Vacuum 3	13.8	13.8
Detail Bay Vacuum 4	14.3	14.3
Detail Bay Vacuum 5	14.5	14.5
Detail Bay Vacuum 6	14.2	14.2
RTU-1A	30.9	30.9
RTU-1B	24.5	24.5
RTU-1C	16.9	16.9
RTU-2A	30.9	30.9
RTU-2B	23.8	23.8
RTU-2C	16.4	16.4
RTU-3A	12.5	12.5
RTU-3B	19.8	19.8
RTU-3C	15.9	15.9
RTU-4A	30.8	30.8
RTU-4B	23.8	23.8
RTU-5A	30.7	30.7
RTU-5B	22.2	22.2
RTU-6A	29.2	29.2
RTU-6B	24.6	24.6
RTU-7A	28.9	28.9
RTU-7B	24.3	24.3
RTU-8A	32.2	32.2
RTU-8B	23.6	23.6
Vacuum1	14.8	14.8
Vacuum2	14.8	14.8
Vacuum3	14.7	14.7
Vacuum4	12.6	12.6
Vacuum5	14.7	14.7
Vacuum6	14.7	14.7
Vacuum7	14.7	14.7
Vacuum8	14.7	14.7
Vacuum9	13.6	13.6
Vacuum10	11.6	11.6
Vacuum11	10.9	10.9
Vacuum12	12.0	12.0
Vacuum13	14.7	14.7
Vacuum14	14.6	14.6
Vacuum15	14.6	14.6
Vacuum16	14.6	14.6
Vacuum17	14.6	14.6
Vacuum18	14.6	14.6
Vacuum19	14.7	14.7
Vacuum20	14.7	14.7
Vacuum21	14.7	14.7
Vacuum22	12.3	12.3
1 2.FI		
Blowers	37.0	26.0
Body Shop A	47.6	47.6
Body Shop B	38.9	38.9
Body Shop C	23.0	23.0
CU-1A	-5.6	-5.6
CU-1B	-18.5	-18.5
CU-1C	-19.7	-19.7
CU-2A	-4.2	-4.2
CU-2B	-18.2	-18.2
CU-2C	-19.5	-19.5
CU-3A	-5.1	-5.1
CU-3B	-15.4	-15.4
Detail Bay Vacuum 1	13.7	13.7
Detail Bay Vacuum 2	14.5	14.5
Detail Bay Vacuum 3	14.9	14.9
Detail Bay Vacuum 4	15.5	15.5
Detail Bay Vacuum 5	15.8	15.8
Detail Bay Vacuum 6	15.5	15.5
RTU-1A	31.4	31.4
RTU-1B	24.8	24.8
RTU-1C	19.6	19.6
RTU-2A	31.5	31.5
RTU-2B	24.5	24.5
RTU-2C	19.0	19.0
RTU-3A	12.8	12.8
RTU-3B	19.9	19.9
RTU-3C	18.6	18.6
RTU-4A	31.4	31.4
RTU-4B	24.4	24.4
RTU-5A	31.3	31.3
RTU-5B	22.7	22.7
RTU-6A	30.6	30.6
RTU-6B	24.7	24.7
RTU-7A	29.3	29.3
RTU-7B	25.6	25.6
RTU-8A	33.5	33.5
RTU-8B	24.5	24.5
Vacuum1	14.9	14.9
Vacuum2	14.9	14.9
Vacuum3	14.9	14.9
Vacuum4	12.7	12.7
Vacuum5	14.8	14.8
Vacuum6	14.8	14.8
Vacuum7	14.8	14.8
Vacuum8	14.8	14.8
Vacuum9	14.0	14.0
Vacuum10	12.4	12.4
Vacuum11	12.0	12.0
Vacuum12	12.9	12.9
Vacuum13	14.8	14.8
Vacuum14	14.7	14.7
Vacuum15	14.7	14.7
Vacuum16	14.7	14.7
Vacuum17	14.7	14.7
Vacuum18	14.7	14.7
Vacuum19	14.8	14.8
Vacuum20	14.8	14.8
Vacuum21	14.8	14.8
Vacuum22	12.4	12.4

2	1.Fl	
Blowers	36.7	25.7
Body Shop A	49.2	49.2
Body Shop B	37.7	37.7
Body Shop C	23.0	23.0
CU-1A	-5.4	-5.4
CU-1B	-23.1	-23.1
CU-1C	-22.8	-22.8
CU-2A	-5.4	-5.4
CU-2B	-21.0	-21.0
CU-2C	-21.3	-21.3
CU-3A	-5.6	-5.6
CU-3B	-20.3	-20.3
Detail Bay Vacuum 1	13.4	13.4
Detail Bay Vacuum 2	14.0	14.0
Detail Bay Vacuum 3	14.4	14.4
Detail Bay Vacuum 4	14.6	14.6
Detail Bay Vacuum 5	14.9	14.9
Detail Bay Vacuum 6	15.2	15.2
RTU-1A	31.5	31.5
RTU-1B	17.8	17.8
RTU-1C	16.0	16.0
RTU-2A	31.5	31.5
RTU-2B	17.8	17.8
RTU-2C	16.8	16.8
RTU-3A	10.3	10.3
RTU-3B	11.4	11.4
RTU-3C	16.7	16.7
RTU-4A	31.5	31.5
RTU-4B	17.8	17.8
RTU-5A	32.5	32.5
RTU-5B	15.2	15.2
RTU-6A	30.9	30.9
RTU-6B	17.9	17.9
RTU-7A	32.2	32.2
RTU-7B	18.9	18.9
RTU-8A	34.0	34.0
RTU-8B	18.9	18.9
Vacuum1	11.2	11.2
Vacuum2	11.0	11.0
Vacuum3	10.9	10.9
Vacuum4	10.8	10.8
Vacuum5	9.7	9.7
Vacuum6	6.8	6.8
Vacuum7	5.9	5.9
Vacuum8	5.8	5.8
Vacuum9	5.7	5.7
Vacuum10	5.4	5.4
Vacuum11	5.5	5.5
Vacuum12	5.5	5.5
Vacuum13	5.9	5.9
Vacuum14	5.9	5.9
Vacuum15	5.9	5.9
Vacuum16	7.0	7.0
Vacuum17	10.6	10.6
Vacuum18	10.7	10.7
Vacuum19	10.8	10.8
Vacuum20	10.9	10.9
Vacuum21	11.1	11.1
Vacuum22	9.4	9.4
2	2.Fl	
Blowers	36.7	25.7
Body Shop A	49.7	49.7
Body Shop B	38.4	38.4
Body Shop C	23.2	23.2
CU-1A	-4.7	-4.7
CU-1B	-21.5	-21.5
CU-1C	-20.1	-20.1
CU-2A	-4.7	-4.7
CU-2B	-18.7	-18.7
CU-2C	-18.6	-18.6
CU-3A	-4.5	-4.5
CU-3B	-17.7	-17.7
Detail Bay Vacuum 1	14.3	14.3
Detail Bay Vacuum 2	15.0	15.0
Detail Bay Vacuum 3	15.4	15.4
Detail Bay Vacuum 4	15.8	15.8
Detail Bay Vacuum 5	16.1	16.1
Detail Bay Vacuum 6	16.4	16.4
RTU-1A	32.1	32.1
RTU-1B	20.8	20.8
RTU-1C	19.0	19.0
RTU-2A	32.1	32.1
RTU-2B	20.8	20.8
RTU-2C	19.5	19.5
RTU-3A	10.7	10.7
RTU-3B	13.6	13.6
RTU-3C	19.4	19.4
RTU-4A	32.1	32.1
RTU-4B	20.7	20.7
RTU-5A	33.2	33.2
RTU-5B	16.8	16.8
RTU-6A	31.5	31.5
RTU-6B	20.4	20.4
RTU-7A	32.9	32.9
RTU-7B	21.7	21.7
RTU-8A	34.9	34.9
RTU-8B	21.6	21.6
Vacuum1	13.8	13.8
Vacuum2	13.7	13.7
Vacuum3	13.6	13.6
Vacuum4	13.6	13.6
Vacuum5	12.5	12.5
Vacuum6	9.0	9.0
Vacuum7	8.2	8.2
Vacuum8	8.1	8.1
Vacuum9	8.0	8.0
Vacuum10	7.4	7.4
Vacuum11	7.5	7.5
Vacuum12	7.5	7.5
Vacuum13	8.2	8.2
Vacuum14	8.2	8.2
Vacuum15	8.2	8.2
Vacuum16	9.3	9.3
Vacuum17	13.5	13.5
Vacuum18	13.5	13.5
Vacuum19	13.6	13.6
Vacuum20	13.7	13.7
Vacuum21	13.7	13.7
Vacuum22	11.7	11.7

3	1.Fl	
Blowers	36.6	25.6
Body Shop A	49.3	49.3
Body Shop B	38.0	38.0
Body Shop C	27.0	27.0
CU-1A	-5.6	-5.6
CU-1B	-21.2	-21.2
CU-1C	-22.5	-22.5
CU-2A	-5.2	-5.2
CU-2B	-19.5	-19.5
CU-2C	-15.2	-15.2
CU-3A	-9.8	-9.8
CU-3B	-19.6	-19.6
Detail Bay Vacuum 1	13.8	13.8
Detail Bay Vacuum 2	14.5	14.5
Detail Bay Vacuum 3	14.9	14.9
Detail Bay Vacuum 4	15.2	15.2
Detail Bay Vacuum 5	15.4	15.4
Detail Bay Vacuum 6	15.6	15.6
RTU-1A	31.2	31.2
RTU-1B	19.6	19.6
RTU-1C	16.1	16.1
RTU-2A	31.2	31.2
RTU-2B	18.7	18.7
RTU-2C	17.0	17.0
RTU-3A	9.5	9.5
RTU-3B	13.0	13.0
RTU-3C	22.8	22.8
RTU-4A	31.3	31.3
RTU-4B	18.7	18.7
RTU-5A	32.3	32.3
RTU-5B	15.7	15.7
RTU-6A	30.8	30.8
RTU-6B	18.6	18.6
RTU-7A	32.1	32.1
RTU-7B	20.1	20.1
RTU-8A	32.1	32.1
RTU-8B	19.7	19.7
Vacuum1	9.3	9.3
Vacuum2	6.9	6.9
Vacuum3	6.5	6.5
Vacuum4	6.2	6.2
Vacuum5	6.1	6.1
Vacuum6	6.0	6.0
Vacuum7	5.8	5.8
Vacuum8	5.7	5.7
Vacuum9	5.5	5.5
Vacuum10	5.4	5.4
Vacuum11	2.7	2.7
Vacuum12	5.3	5.3
Vacuum13	5.8	5.8
Vacuum14	3.3	3.3
Vacuum15	5.9	5.9
Vacuum16	6.1	6.1
Vacuum17	6.2	6.2
Vacuum18	6.4	6.4
Vacuum19	6.5	6.5
Vacuum20	6.7	6.7
Vacuum21	9.1	9.1
Vacuum22	8.0	8.0
3	2.Fl	
Blowers	36.6	25.6
Body Shop A	50.1	50.1
Body Shop B	38.7	38.7
Body Shop C	27.1	27.1
CU-1A	-4.9	-4.9
CU-1B	-18.4	-18.4
CU-1C	-19.5	-19.5
CU-2A	-4.8	-4.8
CU-2B	-16.6	-16.6
CU-2C	-14.9	-14.9
CU-3A	-5.8	-5.8
CU-3B	-16.5	-16.5
Detail Bay Vacuum 1	16.3	16.3
Detail Bay Vacuum 2	17.0	17.0
Detail Bay Vacuum 3	17.4	17.4
Detail Bay Vacuum 4	17.7	17.7
Detail Bay Vacuum 5	17.9	17.9
Detail Bay Vacuum 6	18.2	18.2
RTU-1A	31.7	31.7
RTU-1B	22.8	22.8
RTU-1C	19.4	19.4
RTU-2A	31.8	31.8
RTU-2B	21.7	21.7
RTU-2C	19.7	19.7
RTU-3A	9.9	9.9
RTU-3B	15.3	15.3
RTU-3C	22.9	22.9
RTU-4A	31.9	31.9
RTU-4B	21.7	21.7
RTU-5A	33.0	33.0
RTU-5B	17.2	17.2
RTU-6A	31.4	31.4
RTU-6B	21.1	21.1
RTU-7A	32.9	32.9
RTU-7B	23.7	23.7
RTU-8A	33.2	33.2
RTU-8B	23.0	23.0
Vacuum1	12.1	12.1
Vacuum2	9.6	9.6
Vacuum3	9.2	9.2
Vacuum4	8.5	8.5
Vacuum5	8.3	8.3
Vacuum6	8.1	8.1
Vacuum7	7.8	7.8
Vacuum8	7.7	7.7
Vacuum9	7.4	7.4
Vacuum10	7.3	7.3
Vacuum11	4.5	4.5
Vacuum12	7.1	7.1
Vacuum13	7.9	7.9
Vacuum14	5.3	5.3
Vacuum15	8.0	8.0
Vacuum16	8.2	8.2
Vacuum17	8.4	8.4
Vacuum18	8.8	8.8
Vacuum19	8.8	8.8
Vacuum20	9.6	9.6
Vacuum21	12.1	12.1
Vacuum22	10.6	10.6

4	1.FI	
Blowers	37.6	26.6
Body Shop A	52.1	52.1
Body Shop B	45.3	45.3
Body Shop C	30.3	30.3
CU-1A	-4.0	-4.0
CU-1B	-12.8	-12.8
CU-1C	-14.3	-14.3
CU-2A	-3.9	-3.9
CU-2B	-12.4	-12.4
CU-2C	-13.9	-13.9
CU-3A	-6.5	-6.5
CU-3B	-15.3	-15.3
Detail Bay Vacuum 1	33.7	33.7
Detail Bay Vacuum 2	33.3	33.3
Detail Bay Vacuum 3	33.0	33.0
Detail Bay Vacuum 4	32.7	32.7
Detail Bay Vacuum 5	32.4	32.4
Detail Bay Vacuum 6	32.0	32.0
RTU-1A	32.4	32.4
RTU-1B	24.9	24.9
RTU-1C	24.6	24.6
RTU-2A	29.4	29.4
RTU-2B	24.9	24.9
RTU-2C	24.0	24.0
RTU-3A	9.5	9.5
RTU-3B	12.6	12.6
RTU-3C	24.1	24.1
RTU-4A	33.8	33.8
RTU-4B	22.8	22.8
RTU-5A	32.3	32.3
RTU-5B	21.4	21.4
RTU-6A	28.0	28.0
RTU-6B	26.8	26.8
RTU-7A	31.9	31.9
RTU-7B	28.2	28.2
RTU-8A	33.0	33.0
RTU-8B	27.8	27.8
Vacuum1	8.6	8.6
Vacuum2	8.6	8.6
Vacuum3	9.7	9.7
Vacuum4	9.9	9.9
Vacuum5	10.6	10.6
Vacuum6	9.9	9.9
Vacuum7	7.3	7.3
Vacuum8	11.8	11.8
Vacuum9	11.0	11.0
Vacuum10	10.7	10.7
Vacuum11	8.2	8.2
Vacuum12	11.6	11.6
Vacuum13	11.2	11.2
Vacuum14	10.7	10.7
Vacuum15	11.8	11.8
Vacuum16	10.8	10.8
Vacuum17	11.4	11.4
Vacuum18	10.4	10.4
Vacuum19	9.9	9.9
Vacuum20	8.5	8.5
Vacuum21	7.0	7.0
Vacuum22	4.3	4.3
4	2.FI	
Blowers	37.6	26.6
Body Shop A	53.5	53.5
Body Shop B	45.7	45.7
Body Shop C	30.4	30.4
CU-1A	-1.7	-1.7
CU-1B	-12.2	-12.2
CU-1C	-14.2	-14.2
CU-2A	-1.6	-1.6
CU-2B	-11.9	-11.9
CU-2C	-13.4	-13.4
CU-3A	-4.4	-4.4
CU-3B	-15.1	-15.1
Detail Bay Vacuum 1	34.6	34.6
Detail Bay Vacuum 2	34.2	34.2
Detail Bay Vacuum 3	33.8	33.8
Detail Bay Vacuum 4	33.5	33.5
Detail Bay Vacuum 5	33.2	33.2
Detail Bay Vacuum 6	32.7	32.7
RTU-1A	35.1	35.1
RTU-1B	25.8	25.8
RTU-1C	24.8	24.8
RTU-2A	32.8	32.8
RTU-2B	25.8	25.8
RTU-2C	24.4	24.4
RTU-3A	10.0	10.0
RTU-3B	14.5	14.5
RTU-3C	24.3	24.3
RTU-4A	35.7	35.7
RTU-4B	23.3	23.3
RTU-5A	35.0	35.0
RTU-5B	21.9	21.9
RTU-6A	30.0	30.0
RTU-6B	26.9	26.9
RTU-7A	36.2	36.2
RTU-7B	28.5	28.5
RTU-8A	35.8	35.8
RTU-8B	28.0	28.0
Vacuum1	10.3	10.3
Vacuum2	10.2	10.2
Vacuum3	10.9	10.9
Vacuum4	11.2	11.2
Vacuum5	11.7	11.7
Vacuum6	11.2	11.2
Vacuum7	8.4	8.4
Vacuum8	12.9	12.9
Vacuum9	12.3	12.3
Vacuum10	12.1	12.1
Vacuum11	9.8	9.8
Vacuum12	12.9	12.9
Vacuum13	12.6	12.6
Vacuum14	12.8	12.8
Vacuum15	12.8	12.8
Vacuum16	11.9	11.9
Vacuum17	12.4	12.4
Vacuum18	11.7	11.7
Vacuum19	11.3	11.3
Vacuum20	10.2	10.2
Vacuum21	9.2	9.2
Vacuum22	6.7	6.7

5	1.Fl	
Blowers	38.6	27.6
Body Shop A	56.6	56.6
Body Shop B	46.7	46.7
Body Shop C	31.4	31.4
CU-1A	-10.5	-10.5
CU-1B	-11.4	-11.4
CU-1C	-13.2	-13.2
CU-2A	-10.4	-10.4
CU-2B	-10.9	-10.9
CU-2C	-12.8	-12.8
CU-3A	-7.5	-7.5
CU-3B	-13.6	-13.6
Detail Bay Vacuum 1	37.4	37.4
Detail Bay Vacuum 2	36.8	36.8
Detail Bay Vacuum 3	36.4	36.4
Detail Bay Vacuum 4	36.0	36.0
Detail Bay Vacuum 5	35.5	35.5
Detail Bay Vacuum 6	35.1	35.1
RTU-1A	30.3	30.3
RTU-1B	25.6	25.6
RTU-1C	25.8	25.8
RTU-2A	30.7	30.7
RTU-2B	25.6	25.6
RTU-2C	25.1	25.1
RTU-3A	10.7	10.7
RTU-3B	14.7	14.7
RTU-3C	25.2	25.2
RTU-4A	31.2	31.2
RTU-4B	23.2	23.2
RTU-5A	30.6	30.6
RTU-5B	23.2	23.2
RTU-6A	27.4	27.4
RTU-6B	27.6	27.6
RTU-7A	33.3	33.3
RTU-7B	29.5	29.5
RTU-8A	33.8	33.8
RTU-8B	29.2	29.2
Vacuum1	9.5	9.5
Vacuum2	9.9	9.9
Vacuum3	10.4	10.4
Vacuum4	9.9	9.9
Vacuum5	11.0	11.0
Vacuum6	10.7	10.7
Vacuum7	10.5	10.5
Vacuum8	10.5	10.5
Vacuum9	10.6	10.6
Vacuum10	10.6	10.6
Vacuum11	8.1	8.1
Vacuum12	10.8	10.8
Vacuum13	11.0	11.0
Vacuum14	11.1	11.1
Vacuum15	11.1	11.1
Vacuum16	10.4	10.4
Vacuum17	11.8	11.8
Vacuum18	10.9	10.9
Vacuum19	10.0	10.0
Vacuum20	9.7	9.7
Vacuum21	9.7	9.7
Vacuum22	9.8	9.8
5	2.Fl	
Blowers	38.7	27.7
Body Shop A	58.0	58.0
Body Shop B	47.1	47.1
Body Shop C	31.6	31.6
CU-1A	-5.6	-5.6
CU-1B	-10.8	-10.8
CU-1C	-13.0	-13.0
CU-2A	-5.5	-5.5
CU-2B	-10.5	-10.5
CU-2C	-12.3	-12.3
CU-3A	-5.4	-5.4
CU-3B	-13.4	-13.4
Detail Bay Vacuum 1	39.4	39.4
Detail Bay Vacuum 2	38.7	38.7
Detail Bay Vacuum 3	38.1	38.1
Detail Bay Vacuum 4	37.6	37.6
Detail Bay Vacuum 5	37.0	37.0
Detail Bay Vacuum 6	36.5	36.5
RTU-1A	34.7	34.7
RTU-1B	26.7	26.7
RTU-1C	26.0	26.0
RTU-2A	35.0	35.0
RTU-2B	26.5	26.5
RTU-2C	25.5	25.5
RTU-3A	11.6	11.6
RTU-3B	14.9	14.9
RTU-3C	25.4	25.4
RTU-4A	35.4	35.4
RTU-4B	23.7	23.7
RTU-5A	34.8	34.8
RTU-5B	23.6	23.6
RTU-6A	30.8	30.8
RTU-6B	27.9	27.9
RTU-7A	36.6	36.6
RTU-7B	30.0	30.0
RTU-8A	36.9	36.9
RTU-8B	29.6	29.6
Vacuum1	11.3	11.3
Vacuum2	11.4	11.4
Vacuum3	11.8	11.8
Vacuum4	11.5	11.5
Vacuum5	12.3	12.3
Vacuum6	12.3	12.3
Vacuum7	12.1	12.1
Vacuum8	12.1	12.1
Vacuum9	12.3	12.3
Vacuum10	12.3	12.3
Vacuum11	9.9	9.9
Vacuum12	12.6	12.6
Vacuum13	12.7	12.7
Vacuum14	12.8	12.8
Vacuum15	12.6	12.6
Vacuum16	11.9	11.9
Vacuum17	13.0	13.0
Vacuum18	12.3	12.3
Vacuum19	11.4	11.4
Vacuum20	11.4	11.4
Vacuum21	11.5	11.5
Vacuum22	11.6	11.6

6	1.Fl	
Blowers	39.8	28.8
Body Shop A	55.8	55.8
Body Shop B	48.6	48.6
Body Shop C	32.1	32.1
CU-1A	-11.8	-11.8
CU-1B	-9.6	-9.6
CU-1C	-11.4	-11.4
CU-2A	-10.5	-10.5
CU-2B	-8.8	-8.8
CU-2C	-11.6	-11.6
CU-3A	-4.8	-4.8
CU-3B	-11.7	-11.7
Detail Bay Vacuum 1	42.6	42.6
Detail Bay Vacuum 2	42.0	42.0
Detail Bay Vacuum 3	41.5	41.5
Detail Bay Vacuum 4	40.9	40.9
Detail Bay Vacuum 5	40.3	40.3
Detail Bay Vacuum 6	39.7	39.7
RTU-1A	27.6	27.6
RTU-1B	26.3	26.3
RTU-1C	27.6	27.6
RTU-2A	27.9	27.9
RTU-2B	25.9	25.9
RTU-2C	26.3	26.3
RTU-3A	11.8	11.8
RTU-3B	14.5	14.5
RTU-3C	26.3	26.3
RTU-4A	28.1	28.1
RTU-4B	23.7	23.7
RTU-5A	25.8	25.8
RTU-5B	25.9	25.9
RTU-6A	28.9	28.9
RTU-6B	28.8	28.8
RTU-7A	34.9	34.9
RTU-7B	30.9	30.9
RTU-8A	33.0	33.0
RTU-8B	30.1	30.1
Vacuum1	11.1	11.1
Vacuum2	10.3	10.3
Vacuum3	11.1	11.1
Vacuum4	10.4	10.4
Vacuum5	12.0	12.0
Vacuum6	10.6	10.6
Vacuum7	10.4	10.4
Vacuum8	10.5	10.5
Vacuum9	10.4	10.4
Vacuum10	8.0	8.0
Vacuum11	8.1	8.1
Vacuum12	10.8	10.8
Vacuum13	10.8	10.8
Vacuum14	10.7	10.7
Vacuum15	10.7	10.7
Vacuum16	10.9	10.9
Vacuum17	11.1	11.1
Vacuum18	10.4	10.4
Vacuum19	11.4	11.4
Vacuum20	11.1	11.1
Vacuum21	9.9	9.9
Vacuum22	10.7	10.7
6	2.Fl	
Blowers	39.8	28.8
Body Shop A	58.5	58.5
Body Shop B	49.1	49.1
Body Shop C	32.3	32.3
CU-1A	-7.7	-7.7
CU-1B	-9.0	-9.0
CU-1C	-11.1	-11.1
CU-2A	-3.9	-3.9
CU-2B	-8.6	-8.6
CU-2C	-11.4	-11.4
CU-3A	-0.4	-0.4
CU-3B	-11.4	-11.4
Detail Bay Vacuum 1	46.4	46.4
Detail Bay Vacuum 2	45.4	45.4
Detail Bay Vacuum 3	44.6	44.6
Detail Bay Vacuum 4	43.8	43.8
Detail Bay Vacuum 5	42.9	42.9
Detail Bay Vacuum 6	42.1	42.1
RTU-1A	32.9	32.9
RTU-1B	27.8	27.8
RTU-1C	28.1	28.1
RTU-2A	33.2	33.2
RTU-2B	27.1	27.1
RTU-2C	26.6	26.6
RTU-3A	12.5	12.5
RTU-3B	14.8	14.8
RTU-3C	26.6	26.6
RTU-4A	33.9	33.9
RTU-4B	24.4	24.4
RTU-5A	30.2	30.2
RTU-5B	26.9	26.9
RTU-6A	34.4	34.4
RTU-6B	29.8	29.8
RTU-7A	40.4	40.4
RTU-7B	31.6	31.6
RTU-8A	38.8	38.8
RTU-8B	31.2	31.2
Vacuum1	12.7	12.7
Vacuum2	12.0	12.0
Vacuum3	12.9	12.9
Vacuum4	12.3	12.3
Vacuum5	13.5	13.5
Vacuum6	12.5	12.5
Vacuum7	14.2	14.2
Vacuum8	12.5	12.5
Vacuum9	12.4	12.4
Vacuum10	9.9	9.9
Vacuum11	10.1	10.1
Vacuum12	12.9	12.9
Vacuum13	13.0	13.0
Vacuum14	12.8	12.8
Vacuum15	12.8	12.8
Vacuum16	12.9	12.9
Vacuum17	13.0	13.0
Vacuum18	13.8	13.8
Vacuum19	13.0	13.0
Vacuum20	12.6	12.6
Vacuum21	12.8	12.8
Vacuum22	12.4	12.4

7	1.Fl	
Blowers	41.0	30.0
Body Shop A	54.4	54.4
Body Shop B	50.9	50.9
Body Shop C	34.3	34.3
CU-1A	-9.9	-9.9
CU-1B	-7.8	-7.8
CU-1C	-10.0	-10.0
CU-2A	-10.7	-10.7
CU-2B	-11.9	-11.9
CU-2C	-10.3	-10.3
CU-3A	-4.9	-4.9
CU-3B	-9.3	-9.3
Detail Bay Vacuum 1	42.9	42.9
Detail Bay Vacuum 2	43.3	43.3
Detail Bay Vacuum 3	43.7	43.7
Detail Bay Vacuum 4	44.0	44.0
Detail Bay Vacuum 5	44.2	44.2
Detail Bay Vacuum 6	44.2	44.2
RTU-1A	30.1	30.1
RTU-1B	26.1	26.1
RTU-1C	28.9	28.9
RTU-2A	26.5	26.5
RTU-2B	25.0	25.0
RTU-2C	28.2	28.2
RTU-3A	12.4	12.4
RTU-3B	14.5	14.5
RTU-3C	28.2	28.2
RTU-4A	27.6	27.6
RTU-4B	25.5	25.5
RTU-5A	30.4	30.4
RTU-5B	27.5	27.5
RTU-6A	35.1	35.1
RTU-6B	30.4	30.4
RTU-7A	35.3	35.3
RTU-7B	33.9	33.9
RTU-8A	37.0	37.0
RTU-8B	31.8	31.8
Vacuum1	10.9	10.9
Vacuum2	10.4	10.4
Vacuum3	10.3	10.3
Vacuum4	10.3	10.3
Vacuum5	10.5	10.5
Vacuum6	8.2	8.2
Vacuum7	10.5	10.5
Vacuum8	10.7	10.7
Vacuum9	10.8	10.8
Vacuum10	8.1	8.1
Vacuum11	8.3	8.3
Vacuum12	10.9	10.9
Vacuum13	10.8	10.8
Vacuum14	10.7	10.7
Vacuum15	8.6	8.6
Vacuum16	10.5	10.5
Vacuum17	10.5	10.5
Vacuum18	10.4	10.4
Vacuum19	10.5	10.5
Vacuum20	10.4	10.4
Vacuum21	10.2	10.2
Vacuum22	10.5	10.5
7	2.Fl	
Blowers	41.0	30.0
Body Shop A	55.9	55.9
Body Shop B	51.7	51.7
Body Shop C	34.5	34.5
CU-1A	-6.9	-6.9
CU-1B	-6.9	-6.9
CU-1C	-9.6	-9.6
CU-2A	-8.3	-8.3
CU-2B	-10.1	-10.1
CU-2C	-9.9	-9.9
CU-3A	-4.1	-4.1
CU-3B	-8.9	-8.9
Detail Bay Vacuum 1	46.2	46.2
Detail Bay Vacuum 2	47.2	47.2
Detail Bay Vacuum 3	47.9	47.9
Detail Bay Vacuum 4	48.3	48.3
Detail Bay Vacuum 5	48.6	48.6
Detail Bay Vacuum 6	48.6	48.6
RTU-1A	32.3	32.3
RTU-1B	28.9	28.9
RTU-1C	29.5	29.5
RTU-2A	31.2	31.2
RTU-2B	27.8	27.8
RTU-2C	28.7	28.7
RTU-3A	12.8	12.8
RTU-3B	14.8	14.8
RTU-3C	28.7	28.7
RTU-4A	30.8	30.8
RTU-4B	26.2	26.2
RTU-5A	33.1	33.1
RTU-5B	29.1	29.1
RTU-6A	35.7	35.7
RTU-6B	31.8	31.8
RTU-7A	38.5	38.5
RTU-7B	35.2	35.2
RTU-8A	37.9	37.9
RTU-8B	33.3	33.3
Vacuum1	13.0	13.0
Vacuum2	12.7	12.7
Vacuum3	12.9	12.9
Vacuum4	13.3	13.3
Vacuum5	12.9	12.9
Vacuum6	10.2	10.2
Vacuum7	12.8	12.8
Vacuum8	13.1	13.1
Vacuum9	13.1	13.1
Vacuum10	10.2	10.2
Vacuum11	11.0	11.0
Vacuum12	13.3	13.3
Vacuum13	13.1	13.1
Vacuum14	13.1	13.1
Vacuum15	10.9	10.9
Vacuum16	13.0	13.0
Vacuum17	13.1	13.1
Vacuum18	12.9	12.9
Vacuum19	13.0	13.0
Vacuum20	13.4	13.4
Vacuum21	12.8	12.8
Vacuum22	13.0	13.0

8	1.Fl	
Blowers	42.6	31.6
Body Shop A	51.9	51.9
Body Shop B	53.7	53.7
Body Shop C	38.0	38.0
CU-1A	-6.9	-6.9
CU-1B	-10.6	-10.6
CU-1C	-9.5	-9.5
CU-2A	-10.5	-10.5
CU-2B	-11.5	-11.5
CU-2C	-6.6	-6.6
CU-3A	-8.8	-8.8
CU-3B	-5.4	-5.4
Detail Bay Vacuum 1	36.7	36.7
Detail Bay Vacuum 2	37.2	37.2
Detail Bay Vacuum 3	37.7	37.7
Detail Bay Vacuum 4	38.2	38.2
Detail Bay Vacuum 5	38.8	38.8
Detail Bay Vacuum 6	39.4	39.4
RTU-1A	28.7	28.7
RTU-1B	28.2	28.2
RTU-1C	29.7	29.7
RTU-2A	27.8	27.8
RTU-2B	25.8	25.8
RTU-2C	29.7	29.7
RTU-3A	17.0	17.0
RTU-3B	12.4	12.4
RTU-3C	31.4	31.4
RTU-4A	26.1	26.1
RTU-4B	26.8	26.8
RTU-5A	29.0	29.0
RTU-5B	30.7	30.7
RTU-6A	31.6	31.6
RTU-6B	33.7	33.7
RTU-7A	35.3	35.3
RTU-7B	34.3	34.3
RTU-8A	33.4	33.4
RTU-8B	36.4	36.4
Vacuum1	7.6	7.6
Vacuum2	9.7	9.7
Vacuum3	9.9	9.9
Vacuum4	10.3	10.3
Vacuum5	10.5	10.5
Vacuum6	10.9	10.9
Vacuum7	11.1	11.1
Vacuum8	11.1	11.1
Vacuum9	11.3	11.3
Vacuum10	8.7	8.7
Vacuum11	9.7	9.7
Vacuum12	12.0	12.0
Vacuum13	11.7	11.7
Vacuum14	11.3	11.3
Vacuum15	8.7	8.7
Vacuum16	10.6	10.6
Vacuum17	10.3	10.3
Vacuum18	10.2	10.2
Vacuum19	10.1	10.1
Vacuum20	10.0	10.0
Vacuum21	9.8	9.8
Vacuum22	9.6	9.6
8	2.Fl	
Blowers	42.7	31.7
Body Shop A	52.7	52.7
Body Shop B	55.1	55.1
Body Shop C	37.9	37.9
CU-1A	-6.2	-6.2
CU-1B	-7.7	-7.7
CU-1C	-9.0	-9.0
CU-2A	-9.4	-9.4
CU-2B	-9.2	-9.2
CU-2C	-6.0	-6.0
CU-3A	-8.4	-8.4
CU-3B	-4.7	-4.7
Detail Bay Vacuum 1	38.3	38.3
Detail Bay Vacuum 2	39.0	39.0
Detail Bay Vacuum 3	39.6	39.6
Detail Bay Vacuum 4	40.2	40.2
Detail Bay Vacuum 5	40.9	40.9
Detail Bay Vacuum 6	41.6	41.6
RTU-1A	30.2	30.2
RTU-1B	31.5	31.5
RTU-1C	30.3	30.3
RTU-2A	28.7	28.7
RTU-2B	29.5	29.5
RTU-2C	30.2	30.2
RTU-3A	17.4	17.4
RTU-3B	12.8	12.8
RTU-3C	32.0	32.0
RTU-4A	27.0	27.0
RTU-4B	29.8	29.8
RTU-5A	29.9	29.9
RTU-5B	33.0	33.0
RTU-6A	33.2	33.2
RTU-6B	35.4	35.4
RTU-7A	35.8	35.8
RTU-7B	37.3	37.3
RTU-8A	34.1	34.1
RTU-8B	37.3	37.3
Vacuum1	10.5	10.5
Vacuum2	13.1	13.1
Vacuum3	13.2	13.2
Vacuum4	13.6	13.6
Vacuum5	13.8	13.8
Vacuum6	14.5	14.5
Vacuum7	14.8	14.8
Vacuum8	14.6	14.6
Vacuum9	14.7	14.7
Vacuum10	11.7	11.7
Vacuum11	13.5	13.5
Vacuum12	15.7	15.7
Vacuum13	15.5	15.5
Vacuum14	14.8	14.8
Vacuum15	11.7	11.7
Vacuum16	13.8	13.8
Vacuum17	14.0	14.0
Vacuum18	13.8	13.8
Vacuum19	13.6	13.6
Vacuum20	13.6	13.6
Vacuum21	13.5	13.5
Vacuum22	13.2	13.2

9	1.Fl	
Blowers	45.6	34.6
Body Shop A	46.5	46.5
Body Shop B	52.5	52.5
Body Shop C	43.7	43.7
CU-1A	-11.3	-11.3
CU-1B	-2.1	-2.1
CU-1C	-10.0	-10.0
CU-2A	-14.7	-14.7
CU-2B	-3.8	-3.8
CU-2C	-0.9	-0.9
CU-3A	-14.6	-14.6
CU-3B	-6.4	-6.4
Detail Bay Vacuum 1	28.4	28.4
Detail Bay Vacuum 2	28.7	28.7
Detail Bay Vacuum 3	28.9	28.9
Detail Bay Vacuum 4	29.1	29.1
Detail Bay Vacuum 5	29.3	29.3
Detail Bay Vacuum 6	29.5	29.5
RTU-1A	26.6	26.6
RTU-1B	34.7	34.7
RTU-1C	26.9	26.9
RTU-2A	25.5	25.5
RTU-2B	34.7	34.7
RTU-2C	34.8	34.8
RTU-3A	14.2	14.2
RTU-3B	10.5	10.5
RTU-3C	37.1	37.1
RTU-4A	22.5	22.5
RTU-4B	35.0	35.0
RTU-5A	24.9	24.9
RTU-5B	33.7	33.7
RTU-6A	27.4	27.4
RTU-6B	32.3	32.3
RTU-7A	28.9	28.9
RTU-7B	34.6	34.6
RTU-8A	28.6	28.6
RTU-8B	34.0	34.0
Vacuum1	14.6	14.6
Vacuum2	14.3	14.3
Vacuum3	14.1	14.1
Vacuum4	14.0	14.0
Vacuum5	13.8	13.8
Vacuum6	13.7	13.7
Vacuum7	13.5	13.5
Vacuum8	13.4	13.4
Vacuum9	14.0	14.0
Vacuum10	13.1	13.1
Vacuum11	9.8	9.8
Vacuum12	9.9	9.9
Vacuum13	12.0	12.0
Vacuum14	12.1	12.1
Vacuum15	12.2	12.2
Vacuum16	10.4	10.4
Vacuum17	10.5	10.5
Vacuum18	11.0	11.0
Vacuum19	11.8	11.8
Vacuum20	13.3	13.3
Vacuum21	13.8	13.8
Vacuum22	14.4	14.4
9	2.Fl	
Blowers	45.6	34.6
Body Shop A	46.9	46.9
Body Shop B	53.2	53.2
Body Shop C	44.7	44.7
CU-1A	-10.5	-10.5
CU-1B	-1.7	-1.7
CU-1C	-8.8	-8.8
CU-2A	-13.5	-13.5
CU-2B	-2.2	-2.2
CU-2C	0.9	0.9
CU-3A	-14.4	-14.4
CU-3B	-5.8	-5.8
Detail Bay Vacuum 1	28.8	28.8
Detail Bay Vacuum 2	28.9	28.9
Detail Bay Vacuum 3	29.1	29.1
Detail Bay Vacuum 4	29.2	29.2
Detail Bay Vacuum 5	29.3	29.3
Detail Bay Vacuum 6	29.5	29.5
RTU-1A	27.2	27.2
RTU-1B	35.5	35.5
RTU-1C	28.3	28.3
RTU-2A	26.3	26.3
RTU-2B	35.8	35.8
RTU-2C	37.1	37.1
RTU-3A	15.4	15.4
RTU-3B	10.8	10.8
RTU-3C	39.2	39.2
RTU-4A	23.0	23.0
RTU-4B	35.6	35.6
RTU-5A	25.0	25.0
RTU-5B	34.4	34.4
RTU-6A	27.6	27.6
RTU-6B	32.9	32.9
RTU-7A	28.9	28.9
RTU-7B	35.1	35.1
RTU-8A	28.7	28.7
RTU-8B	34.7	34.7
Vacuum1	17.3	17.3
Vacuum2	17.1	17.1
Vacuum3	17.0	17.0
Vacuum4	16.8	16.8
Vacuum5	16.7	16.7
Vacuum6	16.5	16.5
Vacuum7	16.3	16.3
Vacuum8	16.1	16.1
Vacuum9	15.9	15.9
Vacuum10	15.0	15.0
Vacuum11	12.0	12.0
Vacuum12	12.2	12.2
Vacuum13	14.5	14.5
Vacuum14	14.7	14.7
Vacuum15	14.8	14.8
Vacuum16	12.9	12.9
Vacuum17	13.1	13.1
Vacuum18	13.5	13.5
Vacuum19	14.1	14.1
Vacuum20	16.0	16.0
Vacuum21	16.5	16.5
Vacuum22	17.0	17.0

10	1.Fl	
Blowers	58.5	47.5
Body Shop A	38.7	38.7
Body Shop B	43.5	43.5
Body Shop C	43.5	43.5
CU-1A	-24.6	-24.6
CU-1B	-16.3	-16.3
CU-1C	-13.4	-13.4
CU-2A	-23.4	-23.4
CU-2B	-16.2	-16.2
CU-2C	-2.1	-2.1
CU-3A	-21.2	-21.2
CU-3B	-19.4	-19.4
Detail Bay Vacuum 1	24.4	24.4
Detail Bay Vacuum 2	24.5	24.5
Detail Bay Vacuum 3	24.5	24.5
Detail Bay Vacuum 4	24.5	24.5
Detail Bay Vacuum 5	19.6	19.6
Detail Bay Vacuum 6	19.0	19.0
RTU-1A	14.1	14.1
RTU-1B	21.0	21.0
RTU-1C	21.3	21.3
RTU-2A	14.3	14.3
RTU-2B	19.6	19.6
RTU-2C	34.5	34.5
RTU-3A	5.8	5.8
RTU-3B	5.6	5.6
RTU-3C	34.9	34.9
RTU-4A	13.5	13.5
RTU-4B	21.5	21.5
RTU-5A	13.0	13.0
RTU-5B	22.0	22.0
RTU-6A	15.6	15.6
RTU-6B	17.5	17.5
RTU-7A	25.5	25.5
RTU-7B	18.3	18.3
RTU-8A	24.4	24.4
RTU-8B	20.2	20.2
Vacuum1	20.2	20.2
Vacuum2	20.4	20.4
Vacuum3	20.7	20.7
Vacuum4	20.9	20.9
Vacuum5	21.2	21.2
Vacuum6	21.4	21.4
Vacuum7	21.7	21.7
Vacuum8	22.0	22.0
Vacuum9	22.3	22.3
Vacuum10	22.5	22.5
Vacuum11	23.0	23.0
Vacuum12	22.7	22.7
Vacuum13	22.4	22.4
Vacuum14	22.1	22.1
Vacuum15	21.9	21.9
Vacuum16	21.5	21.5
Vacuum17	8.3	8.3
Vacuum18	5.8	5.8
Vacuum19	5.4	5.4
Vacuum20	5.2	5.2
Vacuum21	4.9	4.9
Vacuum22	4.8	4.8
10	2.Fl	
Blowers	59.1	48.1
Body Shop A	43.8	43.8
Body Shop B	44.6	44.6
Body Shop C	44.4	44.4
CU-1A	-21.0	-21.0
CU-1B	-11.5	-11.5
CU-1C	-11.4	-11.4
CU-2A	-19.3	-19.3
CU-2B	-11.5	-11.5
CU-2C	0.1	0.1
CU-3A	-17.1	-17.1
CU-3B	-16.3	-16.3
Detail Bay Vacuum 1	25.4	25.4
Detail Bay Vacuum 2	25.6	25.6
Detail Bay Vacuum 3	25.7	25.7
Detail Bay Vacuum 4	25.8	25.8
Detail Bay Vacuum 5	22.4	22.4
Detail Bay Vacuum 6	22.0	22.0
RTU-1A	18.4	18.4
RTU-1B	24.3	24.3
RTU-1C	22.8	22.8
RTU-2A	18.5	18.5
RTU-2B	22.9	22.9
RTU-2C	36.3	36.3
RTU-3A	6.9	6.9
RTU-3B	6.5	6.5
RTU-3C	38.3	38.3
RTU-4A	16.4	16.4
RTU-4B	25.3	25.3
RTU-5A	15.8	15.8
RTU-5B	26.1	26.1
RTU-6A	18.8	18.8
RTU-6B	21.0	21.0
RTU-7A	26.4	26.4
RTU-7B	21.4	21.4
RTU-8A	26.1	26.1
RTU-8B	23.7	23.7
Vacuum1	20.7	20.7
Vacuum2	20.9	20.9
Vacuum3	21.2	21.2
Vacuum4	21.4	21.4
Vacuum5	21.7	21.7
Vacuum6	22.0	22.0
Vacuum7	22.3	22.3
Vacuum8	22.6	22.6
Vacuum9	22.9	22.9
Vacuum10	23.1	23.1
Vacuum11	23.8	23.8
Vacuum12	23.4	23.4
Vacuum13	23.1	23.1
Vacuum14	22.8	22.8
Vacuum15	22.5	22.5
Vacuum16	22.1	22.1
Vacuum17	17.5	17.5
Vacuum18	16.8	16.8
Vacuum19	15.9	15.9
Vacuum20	15.1	15.1
Vacuum21	14.4	14.4
Vacuum22	13.7	13.7

11	1.Fl	
Blowers	48.9	37.9
Body Shop A	39.0	39.0
Body Shop B	49.7	49.7
Body Shop C	45.2	45.2
CU-1A	-17.3	-17.3
CU-1B	-5.4	-5.4
CU-1C	-0.1	-0.1
CU-2A	-15.5	-15.5
CU-2B	-4.3	-4.3
CU-2C	-4.5	-4.5
CU-3A	-15.2	-15.2
CU-3B	-5.8	-5.8
Detail Bay Vacuum 1	20.3	20.3
Detail Bay Vacuum 2	20.3	20.3
Detail Bay Vacuum 3	20.3	20.3
Detail Bay Vacuum 4	20.2	20.2
Detail Bay Vacuum 5	20.2	20.2
Detail Bay Vacuum 6	20.1	20.1
RTU-1A	22.9	22.9
RTU-1B	31.4	31.4
RTU-1C	37.3	37.3
RTU-2A	22.9	22.9
RTU-2B	31.5	31.5
RTU-2C	34.5	34.5
RTU-3A	18.3	18.3
RTU-3B	9.1	9.1
RTU-3C	33.5	33.5
RTU-4A	21.9	21.9
RTU-4B	31.7	31.7
RTU-5A	17.9	17.9
RTU-5B	33.0	33.0
RTU-6A	22.2	22.2
RTU-6B	31.0	31.0
RTU-7A	26.2	26.2
RTU-7B	32.8	32.8
RTU-8A	25.1	25.1
RTU-8B	33.4	33.4
Vacuum1	24.5	24.5
Vacuum2	25.6	25.6
Vacuum3	25.9	25.9
Vacuum4	26.2	26.2
Vacuum5	26.5	26.5
Vacuum6	26.8	26.8
Vacuum7	27.2	27.2
Vacuum8	27.6	27.6
Vacuum9	27.8	27.8
Vacuum10	27.7	27.7
Vacuum11	29.0	29.0
Vacuum12	28.4	28.4
Vacuum13	27.9	27.9
Vacuum14	11.7	11.7
Vacuum15	14.3	14.3
Vacuum16	14.0	14.0
Vacuum17	13.9	13.9
Vacuum18	13.8	13.8
Vacuum19	13.7	13.7
Vacuum20	13.6	13.6
Vacuum21	14.6	14.6
Vacuum22	14.5	14.5
11	2.Fl	
Blowers	59.1	48.1
Body Shop A	42.4	42.4
Body Shop B	51.2	51.2
Body Shop C	46.7	46.7
CU-1A	-15.7	-15.7
CU-1B	-5.0	-5.0
CU-1C	1.2	1.2
CU-2A	-13.8	-13.8
CU-2B	-3.8	-3.8
CU-2C	-0.3	-0.3
CU-3A	-13.7	-13.7
CU-3B	-5.4	-5.4
Detail Bay Vacuum 1	27.2	27.2
Detail Bay Vacuum 2	27.1	27.1
Detail Bay Vacuum 3	27.0	27.0
Detail Bay Vacuum 4	27.0	27.0
Detail Bay Vacuum 5	26.9	26.9
Detail Bay Vacuum 6	26.7	26.7
RTU-1A	24.9	24.9
RTU-1B	31.9	31.9
RTU-1C	38.4	38.4
RTU-2A	24.9	24.9
RTU-2B	32.0	32.0
RTU-2C	38.7	38.7
RTU-3A	18.8	18.8
RTU-3B	9.4	9.4
RTU-3C	37.7	37.7
RTU-4A	23.9	23.9
RTU-4B	32.1	32.1
RTU-5A	18.9	18.9
RTU-5B	33.6	33.6
RTU-6A	23.7	23.7
RTU-6B	31.4	31.4
RTU-7A	26.7	26.7
RTU-7B	33.1	33.1
RTU-8A	26.5	26.5
RTU-8B	33.6	33.6
Vacuum1	26.1	26.1
Vacuum2	27.1	27.1
Vacuum3	27.5	27.5
Vacuum4	27.9	27.9
Vacuum5	28.3	28.3
Vacuum6	28.7	28.7
Vacuum7	29.2	29.2
Vacuum8	29.7	29.7
Vacuum9	30.1	30.1
Vacuum10	30.2	30.2
Vacuum11	32.1	32.1
Vacuum12	31.2	31.2
Vacuum13	30.5	30.5
Vacuum14	24.6	24.6
Vacuum15	23.1	23.1
Vacuum16	20.6	20.6
Vacuum17	19.6	19.6
Vacuum18	18.9	18.9
Vacuum19	18.2	18.2
Vacuum20	17.8	17.8
Vacuum21	17.9	17.9
Vacuum22	17.7	17.7

12	1.Fl	
Blowers	66.4	55.4
Body Shop A	38.6	38.6
Body Shop B	45.2	45.2
Body Shop C	42.2	42.2
CU-1A	-21.9	-21.9
CU-1B	-7.5	-7.5
CU-1C	-3.0	-3.0
CU-2A	-17.7	-17.7
CU-2B	-8.9	-8.9
CU-2C	-6.6	-6.6
CU-3A	-18.2	-18.2
CU-3B	-6.7	-6.7
Detail Bay Vacuum 1	17.9	17.9
Detail Bay Vacuum 2	17.8	17.8
Detail Bay Vacuum 3	17.8	17.8
Detail Bay Vacuum 4	17.8	17.8
Detail Bay Vacuum 5	17.7	17.7
Detail Bay Vacuum 6	17.7	17.7
RTU-1A	18.9	18.9
RTU-1B	29.3	29.3
RTU-1C	32.6	32.6
RTU-2A	18.9	18.9
RTU-2B	29.4	29.4
RTU-2C	34.4	34.4
RTU-3A	12.2	12.2
RTU-3B	9.3	9.3
RTU-3C	29.0	29.0
RTU-4A	20.1	20.1
RTU-4B	28.8	28.8
RTU-5A	16.4	16.4
RTU-5B	30.5	30.5
RTU-6A	20.2	20.2
RTU-6B	28.0	28.0
RTU-7A	23.9	23.9
RTU-7B	29.8	29.8
RTU-8A	23.2	23.2
RTU-8B	30.7	30.7
Vacuum1	7.9	7.9
Vacuum2	18.3	18.3
Vacuum3	18.5	18.5
Vacuum4	18.6	18.6
Vacuum5	18.7	18.7
Vacuum6	19.2	19.2
Vacuum7	30.1	30.1
Vacuum8	30.6	30.6
Vacuum9	30.9	30.9
Vacuum10	31.2	31.2
Vacuum11	34.2	34.2
Vacuum12	21.6	21.6
Vacuum13	19.6	19.6
Vacuum14	19.3	19.3
Vacuum15	14.3	14.3
Vacuum16	17.0	17.0
Vacuum17	16.5	16.5
Vacuum18	15.1	15.1
Vacuum19	14.4	14.4
Vacuum20	13.8	13.8
Vacuum21	13.3	13.3
Vacuum22	8.8	8.8
12	2.Fl	
Blowers	70.3	59.3
Body Shop A	41.8	41.8
Body Shop B	50.9	50.9
Body Shop C	44.0	44.0
CU-1A	-19.2	-19.2
CU-1B	-4.0	-4.0
CU-1C	1.1	1.1
CU-2A	-13.9	-13.9
CU-2B	-4.7	-4.7
CU-2C	-2.8	-2.8
CU-3A	-15.0	-15.0
CU-3B	-3.7	-3.7
Detail Bay Vacuum 1	24.2	24.2
Detail Bay Vacuum 2	24.1	24.1
Detail Bay Vacuum 3	24.0	24.0
Detail Bay Vacuum 4	23.9	23.9
Detail Bay Vacuum 5	23.8	23.8
Detail Bay Vacuum 6	23.7	23.7
RTU-1A	23.3	23.3
RTU-1B	33.0	33.0
RTU-1C	36.6	36.6
RTU-2A	23.3	23.3
RTU-2B	33.0	33.0
RTU-2C	36.6	36.6
RTU-3A	15.3	15.3
RTU-3B	10.1	10.1
RTU-3C	32.7	32.7
RTU-4A	24.5	24.5
RTU-4B	32.5	32.5
RTU-5A	18.8	18.8
RTU-5B	33.9	33.9
RTU-6A	23.6	23.6
RTU-6B	31.8	31.8
RTU-7A	26.7	26.7
RTU-7B	33.2	33.2
RTU-8A	26.5	26.5
RTU-8B	33.9	33.9
Vacuum1	15.2	15.2
Vacuum2	21.0	21.0
Vacuum3	21.7	21.7
Vacuum4	22.9	22.9
Vacuum5	24.7	24.7
Vacuum6	28.2	28.2
Vacuum7	33.8	33.8
Vacuum8	34.6	34.6
Vacuum9	35.3	35.3
Vacuum10	35.9	35.9
Vacuum11	40.0	40.0
Vacuum12	34.1	34.1
Vacuum13	27.6	27.6
Vacuum14	24.8	24.8
Vacuum15	21.8	21.8
Vacuum16	21.0	21.0
Vacuum17	20.4	20.4
Vacuum18	17.5	17.5
Vacuum19	16.6	16.6
Vacuum20	15.9	15.9
Vacuum21	15.2	15.2
Vacuum22	13.2	13.2

13	1.Fl	
Blowers	56.6	45.6
Body Shop A	37.8	37.8
Body Shop B	45.0	45.0
Body Shop C	37.5	37.5
CU-1A	-23.0	-23.0
CU-1B	-8.0	-8.0
CU-1C	-4.1	-4.1
CU-2A	-20.7	-20.7
CU-2B	-9.4	-9.4
CU-2C	-8.0	-8.0
CU-3A	-17.7	-17.7
CU-3B	-7.5	-7.5
Detail Bay Vacuum 1	17.6	17.6
Detail Bay Vacuum 2	17.5	17.5
Detail Bay Vacuum 3	17.5	17.5
Detail Bay Vacuum 4	17.5	17.5
Detail Bay Vacuum 5	18.1	18.1
Detail Bay Vacuum 6	18.0	18.0
RTU-1A	19.5	19.5
RTU-1B	28.3	28.3
RTU-1C	32.2	32.2
RTU-2A	19.5	19.5
RTU-2B	28.3	28.3
RTU-2C	31.3	31.3
RTU-3A	12.3	12.3
RTU-3B	9.3	9.3
RTU-3C	27.6	27.6
RTU-4A	18.4	18.4
RTU-4B	28.3	28.3
RTU-5A	15.4	15.4
RTU-5B	30.0	30.0
RTU-6A	18.3	18.3
RTU-6B	27.5	27.5
RTU-7A	23.0	23.0
RTU-7B	29.1	29.1
RTU-8A	22.3	22.3
RTU-8B	29.9	29.9
Vacuum1	13.5	13.5
Vacuum2	13.9	13.9
Vacuum3	14.4	14.4
Vacuum4	19.5	19.5
Vacuum5	19.7	19.7
Vacuum6	18.6	18.6
Vacuum7	18.8	18.8
Vacuum8	19.3	19.3
Vacuum9	31.0	31.0
Vacuum10	31.2	31.2
Vacuum11	34.4	34.4
Vacuum12	20.4	20.4
Vacuum13	19.8	19.8
Vacuum14	21.7	21.7
Vacuum15	21.3	21.3
Vacuum16	20.4	20.4
Vacuum17	17.1	17.1
Vacuum18	11.7	11.7
Vacuum19	11.0	11.0
Vacuum20	10.3	10.3
Vacuum21	10.0	10.0
Vacuum22	9.7	9.7
13	2.Fl	
Blowers	60.4	49.4
Body Shop A	39.7	39.7
Body Shop B	50.7	50.7
Body Shop C	43.0	43.0
CU-1A	-20.0	-20.0
CU-1B	-4.1	-4.1
CU-1C	0.1	0.1
CU-2A	-17.2	-17.2
CU-2B	-5.0	-5.0
CU-2C	-3.5	-3.5
CU-3A	-14.9	-14.9
CU-3B	-3.9	-3.9
Detail Bay Vacuum 1	26.1	26.1
Detail Bay Vacuum 2	24.6	24.6
Detail Bay Vacuum 3	24.5	24.5
Detail Bay Vacuum 4	24.4	24.4
Detail Bay Vacuum 5	24.5	24.5
Detail Bay Vacuum 6	24.4	24.4
RTU-1A	24.1	24.1
RTU-1B	32.4	32.4
RTU-1C	35.9	35.9
RTU-2A	24.2	24.2
RTU-2B	32.4	32.4
RTU-2C	35.7	35.7
RTU-3A	15.7	15.7
RTU-3B	10.1	10.1
RTU-3C	31.8	31.8
RTU-4A	22.8	22.8
RTU-4B	32.4	32.4
RTU-5A	18.1	18.1
RTU-5B	33.8	33.8
RTU-6A	22.4	22.4
RTU-6B	31.7	31.7
RTU-7A	26.7	26.7
RTU-7B	33.1	33.1
RTU-8A	25.7	25.7
RTU-8B	33.8	33.8
Vacuum1	15.2	15.2
Vacuum2	16.0	16.0
Vacuum3	16.8	16.8
Vacuum4	21.6	21.6
Vacuum5	22.1	22.1
Vacuum6	22.6	22.6
Vacuum7	24.4	24.4
Vacuum8	28.3	28.3
Vacuum9	36.5	36.5
Vacuum10	37.0	37.0
Vacuum11	41.4	41.4
Vacuum12	29.6	29.6
Vacuum13	25.4	25.4
Vacuum14	24.8	24.8
Vacuum15	24.0	24.0
Vacuum16	19.7	19.7
Vacuum17	18.9	18.9
Vacuum18	15.3	15.3
Vacuum19	14.2	14.2
Vacuum20	13.3	13.3
Vacuum21	12.6	12.6
Vacuum22	12.2	12.2

14	1.FI	
Blowers	60.2	49.2
Body Shop A	33.8	33.8
Body Shop B	41.3	41.3
Body Shop C	36.0	36.0
CU-1A	-34.7	-34.7
CU-1B	-26.6	-26.6
CU-1C	-5.4	-5.4
CU-2A	-34.7	-34.7
CU-2B	-26.4	-26.4
CU-2C	-11.3	-11.3
CU-3A	-34.3	-34.3
CU-3B	-28.2	-28.2
Detail Bay Vacuum 1	7.6	7.6
Detail Bay Vacuum 2	5.8	5.8
Detail Bay Vacuum 3	6.0	6.0
Detail Bay Vacuum 4	6.1	6.1
Detail Bay Vacuum 5	6.3	6.3
Detail Bay Vacuum 6	6.5	6.5
RTU-1A	3.2	3.2
RTU-1B	11.6	11.6
RTU-1C	30.8	30.8
RTU-2A	3.2	3.2
RTU-2B	11.6	11.6
RTU-2C	27.7	27.7
RTU-3A	1.3	1.3
RTU-3B	5.1	5.1
RTU-3C	26.3	26.3
RTU-4A	3.2	3.2
RTU-4B	11.5	11.5
RTU-5A	3.2	3.2
RTU-5B	11.5	11.5
RTU-6A	3.4	3.4
RTU-6B	11.1	11.1
RTU-7A	4.2	4.2
RTU-7B	12.1	12.1
RTU-8A	4.6	4.6
RTU-8B	11.1	11.1
Vacuum1	10.9	10.9
Vacuum2	11.3	11.3
Vacuum3	11.8	11.8
Vacuum4	12.2	12.2
Vacuum5	12.7	12.7
Vacuum6	13.0	13.0
Vacuum7	13.4	13.4
Vacuum8	13.6	13.6
Vacuum9	13.7	13.7
Vacuum10	13.7	13.7
Vacuum11	17.7	17.7
Vacuum12	18.3	18.3
Vacuum13	18.3	18.3
Vacuum14	17.8	17.8
Vacuum15	17.2	17.2
Vacuum16	16.1	16.1
Vacuum17	15.4	15.4
Vacuum18	14.7	14.7
Vacuum19	14.0	14.0
Vacuum20	13.3	13.3
Vacuum21	12.7	12.7
Vacuum22	12.5	12.5
14	2.FI	
Blowers	60.8	49.8
Body Shop A	33.8	33.8
Body Shop B	41.3	41.3
Body Shop C	41.5	41.5
CU-1A	-34.5	-34.5
CU-1B	-23.8	-23.8
CU-1C	-1.2	-1.2
CU-2A	-34.5	-34.5
CU-2B	-22.8	-22.8
CU-2C	-7.0	-7.0
CU-3A	-34.2	-34.2
CU-3B	-27.9	-27.9
Detail Bay Vacuum 1	7.9	7.9
Detail Bay Vacuum 2	6.2	6.2
Detail Bay Vacuum 3	6.4	6.4
Detail Bay Vacuum 4	6.5	6.5
Detail Bay Vacuum 5	6.7	6.7
Detail Bay Vacuum 6	6.9	6.9
RTU-1A	3.3	3.3
RTU-1B	12.0	12.0
RTU-1C	35.0	35.0
RTU-2A	3.3	3.3
RTU-2B	12.1	12.1
RTU-2C	32.1	32.1
RTU-3A	1.4	1.4
RTU-3B	5.1	5.1
RTU-3C	30.6	30.6
RTU-4A	3.4	3.4
RTU-4B	12.3	12.3
RTU-5A	3.4	3.4
RTU-5B	12.8	12.8
RTU-6A	5.0	5.0
RTU-6B	12.2	12.2
RTU-7A	4.3	4.3
RTU-7B	12.2	12.2
RTU-8A	4.7	4.7
RTU-8B	11.4	11.4
Vacuum1	11.6	11.6
Vacuum2	12.2	12.2
Vacuum3	12.8	12.8
Vacuum4	13.4	13.4
Vacuum5	14.1	14.1
Vacuum6	14.8	14.8
Vacuum7	15.6	15.6
Vacuum8	16.6	16.6
Vacuum9	17.7	17.7
Vacuum10	19.0	19.0
Vacuum11	26.7	26.7
Vacuum12	21.7	21.7
Vacuum13	20.2	20.2
Vacuum14	19.3	19.3
Vacuum15	18.5	18.5
Vacuum16	17.3	17.3
Vacuum17	16.6	16.6
Vacuum18	15.9	15.9
Vacuum19	15.1	15.1
Vacuum20	14.3	14.3
Vacuum21	13.6	13.6
Vacuum22	13.4	13.4

15	1.Fl	
Blowers	66.3	55.3
Body Shop A	33.8	33.8
Body Shop B	41.2	41.2
Body Shop C	34.8	34.8
CU-1A	-34.8	-34.8
CU-1B	-27.0	-27.0
CU-1C	-25.0	-25.0
CU-2A	-34.8	-34.8
CU-2B	-26.9	-26.9
CU-2C	-21.8	-21.8
CU-3A	-34.3	-34.3
CU-3B	-28.6	-28.6
Detail Bay Vacuum 1	7.5	7.5
Detail Bay Vacuum 2	5.7	5.7
Detail Bay Vacuum 3	5.8	5.8
Detail Bay Vacuum 4	5.7	5.7
Detail Bay Vacuum 5	5.9	5.9
Detail Bay Vacuum 6	6.0	6.0
RTU-1A	3.2	3.2
RTU-1B	11.4	11.4
RTU-1C	13.2	13.2
RTU-2A	3.2	3.2
RTU-2B	11.4	11.4
RTU-2C	13.2	13.2
RTU-3A	1.4	1.4
RTU-3B	5.2	5.2
RTU-3C	16.3	16.3
RTU-4A	3.2	3.2
RTU-4B	11.3	11.3
RTU-5A	3.2	3.2
RTU-5B	11.2	11.2
RTU-6A	3.5	3.5
RTU-6B	10.9	10.9
RTU-7A	4.3	4.3
RTU-7B	11.5	11.5
RTU-8A	4.7	4.7
RTU-8B	10.7	10.7
Vacuum1	13.5	13.5
Vacuum2	13.7	13.7
Vacuum3	13.9	13.9
Vacuum4	13.9	13.9
Vacuum5	14.0	14.0
Vacuum6	13.8	13.8
Vacuum7	13.6	13.6
Vacuum8	13.2	13.2
Vacuum9	12.8	12.8
Vacuum10	12.4	12.4
Vacuum11	14.1	14.1
Vacuum12	15.2	15.2
Vacuum13	17.3	17.3
Vacuum14	17.8	17.8
Vacuum15	18.2	18.2
Vacuum16	18.3	18.3
Vacuum17	18.6	18.6
Vacuum18	18.5	18.5
Vacuum19	18.2	18.2
Vacuum20	17.7	17.7
Vacuum21	17.1	17.1
Vacuum22	16.8	16.8
15	2.Fl	
Blowers	66.1	55.1
Body Shop A	33.8	33.8
Body Shop B	41.2	41.2
Body Shop C	34.8	34.8
CU-1A	-34.6	-34.6
CU-1B	-26.5	-26.5
CU-1C	-25.0	-25.0
CU-2A	-34.6	-34.6
CU-2B	-26.5	-26.5
CU-2C	-21.4	-21.4
CU-3A	-34.2	-34.2
CU-3B	-28.2	-28.2
Detail Bay Vacuum 1	7.6	7.6
Detail Bay Vacuum 2	5.9	5.9
Detail Bay Vacuum 3	6.0	6.0
Detail Bay Vacuum 4	6.1	6.1
Detail Bay Vacuum 5	6.3	6.3
Detail Bay Vacuum 6	6.5	6.5
RTU-1A	3.3	3.3
RTU-1B	11.6	11.6
RTU-1C	13.2	13.2
RTU-2A	3.3	3.3
RTU-2B	11.6	11.6
RTU-2C	13.7	13.7
RTU-3A	1.4	1.4
RTU-3B	5.2	5.2
RTU-3C	16.5	16.5
RTU-4A	3.3	3.3
RTU-4B	11.6	11.6
RTU-5A	3.3	3.3
RTU-5B	11.6	11.6
RTU-6A	3.6	3.6
RTU-6B	11.2	11.2
RTU-7A	4.4	4.4
RTU-7B	11.8	11.8
RTU-8A	4.8	4.8
RTU-8B	11.1	11.1
Vacuum1	14.1	14.1
Vacuum2	14.3	14.3
Vacuum3	14.5	14.5
Vacuum4	14.5	14.5
Vacuum5	14.5	14.5
Vacuum6	14.3	14.3
Vacuum7	14.2	14.2
Vacuum8	13.9	13.9
Vacuum9	13.5	13.5
Vacuum10	13.2	13.2
Vacuum11	15.9	15.9
Vacuum12	16.3	16.3
Vacuum13	17.9	17.9
Vacuum14	18.2	18.2
Vacuum15	18.6	18.6
Vacuum16	18.6	18.6
Vacuum17	18.8	18.8
Vacuum18	18.8	18.8
Vacuum19	18.6	18.6
Vacuum20	18.2	18.2
Vacuum21	18.2	18.2
Vacuum22	19.0	19.0

16	1.Fl	
Blowers	62.5	51.5
Body Shop A	33.4	33.4
Body Shop B	40.2	40.2
Body Shop C	37.0	37.0
CU-1A	-35.1	-35.1
CU-1B	-27.9	-27.9
CU-1C	-20.9	-20.9
CU-2A	-35.1	-35.1
CU-2B	-27.8	-27.8
CU-2C	-12.3	-12.3
CU-3A	-34.6	-34.6
CU-3B	-29.4	-29.4
Detail Bay Vacuum 1	6.9	6.9
Detail Bay Vacuum 2	4.9	4.9
Detail Bay Vacuum 3	5.1	5.1
Detail Bay Vacuum 4	5.2	5.2
Detail Bay Vacuum 5	5.4	5.4
Detail Bay Vacuum 6	5.5	5.5
RTU-1A	2.8	2.8
RTU-1B	10.5	10.5
RTU-1C	20.5	20.5
RTU-2A	2.8	2.8
RTU-2B	10.5	10.5
RTU-2C	29.1	29.1
RTU-3A	1.1	1.1
RTU-3B	4.5	4.5
RTU-3C	25.0	25.0
RTU-4A	2.8	2.8
RTU-4B	10.4	10.4
RTU-5A	2.8	2.8
RTU-5B	10.4	10.4
RTU-6A	3.1	3.1
RTU-6B	10.1	10.1
RTU-7A	4.2	4.2
RTU-7B	10.7	10.7
RTU-8A	4.5	4.5
RTU-8B	10.0	10.0
Vacuum1	11.8	11.8
Vacuum2	11.7	11.7
Vacuum3	11.6	11.6
Vacuum4	11.5	11.5
Vacuum5	11.3	11.3
Vacuum6	11.1	11.1
Vacuum7	10.9	10.9
Vacuum8	10.7	10.7
Vacuum9	10.3	10.3
Vacuum10	10.1	10.1
Vacuum11	11.5	11.5
Vacuum12	14.1	14.1
Vacuum13	14.3	14.3
Vacuum14	13.2	13.2
Vacuum15	13.6	13.6
Vacuum16	14.1	14.1
Vacuum17	14.3	14.3
Vacuum18	14.4	14.4
Vacuum19	14.5	14.5
Vacuum20	14.6	14.6
Vacuum21	14.9	14.9
Vacuum22	17.9	17.9
16	2.Fl	
Blowers	62.3	51.3
Body Shop A	33.4	33.4
Body Shop B	40.2	40.2
Body Shop C	38.7	38.7
CU-1A	-35.0	-35.0
CU-1B	-27.2	-27.2
CU-1C	-20.9	-20.9
CU-2A	-35.0	-35.0
CU-2B	-27.2	-27.2
CU-2C	-9.0	-9.0
CU-3A	-34.5	-34.5
CU-3B	-28.6	-28.6
Detail Bay Vacuum 1	7.3	7.3
Detail Bay Vacuum 2	5.6	5.6
Detail Bay Vacuum 3	5.7	5.7
Detail Bay Vacuum 4	5.9	5.9
Detail Bay Vacuum 5	6.0	6.0
Detail Bay Vacuum 6	6.1	6.1
RTU-1A	2.9	2.9
RTU-1B	10.7	10.7
RTU-1C	21.0	21.0
RTU-2A	2.9	2.9
RTU-2B	10.7	10.7
RTU-2C	29.6	29.6
RTU-3A	1.3	1.3
RTU-3B	4.5	4.5
RTU-3C	28.6	28.6
RTU-4A	2.9	2.9
RTU-4B	10.7	10.7
RTU-5A	3.0	3.0
RTU-5B	10.8	10.8
RTU-6A	3.3	3.3
RTU-6B	10.5	10.5
RTU-7A	4.3	4.3
RTU-7B	11.1	11.1
RTU-8A	4.6	4.6
RTU-8B	10.7	10.7
Vacuum1	14.4	14.4
Vacuum2	13.4	13.4
Vacuum3	12.9	12.9
Vacuum4	12.5	12.5
Vacuum5	12.2	12.2
Vacuum6	11.9	11.9
Vacuum7	11.7	11.7
Vacuum8	11.5	11.5
Vacuum9	11.3	11.3
Vacuum10	11.1	11.1
Vacuum11	13.7	13.7
Vacuum12	14.9	14.9
Vacuum13	15.0	15.0
Vacuum14	14.0	14.0
Vacuum15	14.4	14.4
Vacuum16	14.9	14.9
Vacuum17	15.2	15.2
Vacuum18	15.4	15.4
Vacuum19	15.8	15.8
Vacuum20	16.3	16.3
Vacuum21	18.3	18.3
Vacuum22	25.4	25.4

17	1.Fl	
Blowers	68.2	57.2
Body Shop A	36.9	36.9
Body Shop B	38.8	38.8
Body Shop C	36.2	36.2
CU-1A	-18.9	-18.9
CU-1B	-24.2	-24.2
CU-1C	-28.1	-28.1
CU-2A	-18.9	-18.9
CU-2B	-24.3	-24.3
CU-2C	-13.4	-13.4
CU-3A	-17.7	-17.7
CU-3B	-30.6	-30.6
Detail Bay Vacuum 1	6.2	6.2
Detail Bay Vacuum 2	4.2	4.2
Detail Bay Vacuum 3	4.3	4.3
Detail Bay Vacuum 4	4.5	4.5
Detail Bay Vacuum 5	4.6	4.6
Detail Bay Vacuum 6	4.7	4.7
RTU-1A	24.2	24.2
RTU-1B	9.3	9.3
RTU-1C	18.8	18.8
RTU-2A	24.1	24.1
RTU-2B	9.2	9.2
RTU-2C	27.4	27.4
RTU-3A	19.0	19.0
RTU-3B	3.7	3.7
RTU-3C	23.9	23.9
RTU-4A	24.1	24.1
RTU-4B	13.9	13.9
RTU-5A	22.3	22.3
RTU-5B	13.9	13.9
RTU-6A	24.0	24.0
RTU-6B	13.6	13.6
RTU-7A	21.9	21.9
RTU-7B	9.2	9.2
RTU-8A	21.5	21.5
RTU-8B	8.7	8.7
Vacuum1	28.4	28.4
Vacuum2	22.1	22.1
Vacuum3	14.6	14.6
Vacuum4	15.8	15.8
Vacuum5	12.0	12.0
Vacuum6	10.6	10.6
Vacuum7	9.7	9.7
Vacuum8	8.9	8.9
Vacuum9	8.3	8.3
Vacuum10	7.8	7.8
Vacuum11	7.8	7.8
Vacuum12	8.4	8.4
Vacuum13	10.4	10.4
Vacuum14	9.3	9.3
Vacuum15	9.9	9.9
Vacuum16	10.6	10.6
Vacuum17	11.2	11.2
Vacuum18	11.9	11.9
Vacuum19	16.2	16.2
Vacuum20	15.7	15.7
Vacuum21	24.9	24.9
Vacuum22	30.7	30.7
17	2.Fl	
Blowers	69.5	58.5
Body Shop A	37.6	37.6
Body Shop B	38.8	38.8
Body Shop C	36.7	36.7
CU-1A	-18.5	-18.5
CU-1B	-24.2	-24.2
CU-1C	-28.1	-28.1
CU-2A	-18.5	-18.5
CU-2B	-24.3	-24.3
CU-2C	-10.7	-10.7
CU-3A	-17.5	-17.5
CU-3B	-25.6	-25.6
Detail Bay Vacuum 1	8.9	8.9
Detail Bay Vacuum 2	7.7	7.7
Detail Bay Vacuum 3	7.6	7.6
Detail Bay Vacuum 4	7.5	7.5
Detail Bay Vacuum 5	7.5	7.5
Detail Bay Vacuum 6	7.4	7.4
RTU-1A	24.4	24.4
RTU-1B	9.3	9.3
RTU-1C	19.0	19.0
RTU-2A	24.3	24.3
RTU-2B	9.2	9.2
RTU-2C	27.8	27.8
RTU-3A	19.1	19.1
RTU-3B	3.7	3.7
RTU-3C	26.9	26.9
RTU-4A	24.3	24.3
RTU-4B	13.9	13.9
RTU-5A	22.4	22.4
RTU-5B	13.9	13.9
RTU-6A	24.2	24.2
RTU-6B	13.6	13.6
RTU-7A	22.3	22.3
RTU-7B	11.0	11.0
RTU-8A	21.7	21.7
RTU-8B	8.8	8.8
Vacuum1	30.3	30.3
Vacuum2	25.0	25.0
Vacuum3	18.7	18.7
Vacuum4	16.3	16.3
Vacuum5	12.7	12.7
Vacuum6	11.2	11.2
Vacuum7	10.2	10.2
Vacuum8	9.4	9.4
Vacuum9	8.8	8.8
Vacuum10	8.5	8.5
Vacuum11	9.1	9.1
Vacuum12	9.1	9.1
Vacuum13	10.8	10.8
Vacuum14	9.8	9.8
Vacuum15	10.3	10.3
Vacuum16	11.1	11.1
Vacuum17	11.7	11.7
Vacuum18	12.5	12.5
Vacuum19	16.6	16.6
Vacuum20	16.7	16.7
Vacuum21	26.3	26.3
Vacuum22	33.4	33.4

18	1.Fl	
Blowers	61.3	50.3
Body Shop A	41.2	41.2
Body Shop B	45.3	45.3
Body Shop C	36.5	36.5
CU-1A	-15.3	-15.3
CU-1B	-6.2	-6.2
CU-1C	-8.9	-8.9
CU-2A	-17.1	-17.1
CU-2B	-6.2	-6.2
CU-2C	-13.4	-13.4
CU-3A	-13.7	-13.7
CU-3B	-7.8	-7.8
Detail Bay Vacuum 1	27.6	27.6
Detail Bay Vacuum 2	27.6	27.6
Detail Bay Vacuum 3	27.7	27.7
Detail Bay Vacuum 4	27.7	27.7
Detail Bay Vacuum 5	27.7	27.7
Detail Bay Vacuum 6	27.7	27.7
RTU-1A	25.5	25.5
RTU-1B	28.2	28.2
RTU-1C	29.3	29.3
RTU-2A	25.4	25.4
RTU-2B	31.0	31.0
RTU-2C	29.2	29.2
RTU-3A	20.3	20.3
RTU-3B	13.1	13.1
RTU-3C	24.2	24.2
RTU-4A	25.2	25.2
RTU-4B	31.0	31.0
RTU-5A	25.2	25.2
RTU-5B	30.8	30.8
RTU-6A	25.1	25.1
RTU-6B	29.7	29.7
RTU-7A	28.3	28.3
RTU-7B	29.9	29.9
RTU-8A	24.2	24.2
RTU-8B	31.2	31.2
Vacuum1	31.1	31.1
Vacuum2	30.3	30.3
Vacuum3	29.6	29.6
Vacuum4	28.9	28.9
Vacuum5	28.3	28.3
Vacuum6	27.6	27.6
Vacuum7	27.1	27.1
Vacuum8	26.6	26.6
Vacuum9	26.1	26.1
Vacuum10	25.8	25.8
Vacuum11	25.2	25.2
Vacuum12	25.6	25.6
Vacuum13	26.1	26.1
Vacuum14	26.6	26.6
Vacuum15	27.0	27.0
Vacuum16	27.7	27.7
Vacuum17	28.2	28.2
Vacuum18	28.7	28.7
Vacuum19	29.4	29.4
Vacuum20	30.1	30.1
Vacuum21	30.9	30.9
Vacuum22	31.8	31.8
18	2.Fl	
Blowers	62.3	51.3
Body Shop A	41.4	41.4
Body Shop B	46.2	46.2
Body Shop C	36.9	36.9
CU-1A	-15.1	-15.1
CU-1B	-5.5	-5.5
CU-1C	-8.5	-8.5
CU-2A	-16.8	-16.8
CU-2B	-5.6	-5.6
CU-2C	-11.5	-11.5
CU-3A	-13.6	-13.6
CU-3B	-6.7	-6.7
Detail Bay Vacuum 1	27.8	27.8
Detail Bay Vacuum 2	27.9	27.9
Detail Bay Vacuum 3	28.0	28.0
Detail Bay Vacuum 4	28.0	28.0
Detail Bay Vacuum 5	27.9	27.9
Detail Bay Vacuum 6	28.0	28.0
RTU-1A	25.7	25.7
RTU-1B	28.7	28.7
RTU-1C	29.6	29.6
RTU-2A	25.6	25.6
RTU-2B	31.5	31.5
RTU-2C	30.2	30.2
RTU-3A	20.5	20.5
RTU-3B	13.4	13.4
RTU-3C	26.0	26.0
RTU-4A	25.5	25.5
RTU-4B	31.5	31.5
RTU-5A	25.5	25.5
RTU-5B	31.4	31.4
RTU-6A	25.3	25.3
RTU-6B	30.1	30.1
RTU-7A	28.4	28.4
RTU-7B	31.4	31.4
RTU-8A	24.3	24.3
RTU-8B	32.2	32.2
Vacuum1	32.3	32.3
Vacuum2	31.4	31.4
Vacuum3	30.6	30.6
Vacuum4	29.8	29.8
Vacuum5	29.2	29.2
Vacuum6	28.5	28.5
Vacuum7	27.9	27.9
Vacuum8	27.3	27.3
Vacuum9	26.9	26.9
Vacuum10	26.4	26.4
Vacuum11	25.8	25.8
Vacuum12	26.3	26.3
Vacuum13	26.8	26.8
Vacuum14	27.3	27.3
Vacuum15	27.8	27.8
Vacuum16	28.6	28.6
Vacuum17	29.0	29.0
Vacuum18	29.6	29.6
Vacuum19	30.4	30.4
Vacuum20	31.2	31.2
Vacuum21	32.2	32.2
Vacuum22	33.2	33.2

19	1.Fl	
Blowers	49.5	38.5
Body Shop A	40.6	40.6
Body Shop B	45.8	45.8
Body Shop C	35.0	35.0
CU-1A	-13.6	-13.6
CU-1B	-5.1	-5.1
CU-1C	-9.0	-9.0
CU-2A	-13.6	-13.6
CU-2B	-5.2	-5.2
CU-2C	-14.7	-14.7
CU-3A	-14.9	-14.9
CU-3B	-9.3	-9.3
Detail Bay Vacuum 1	29.7	29.7
Detail Bay Vacuum 2	29.8	29.8
Detail Bay Vacuum 3	29.7	29.7
Detail Bay Vacuum 4	29.7	29.7
Detail Bay Vacuum 5	29.8	29.8
Detail Bay Vacuum 6	29.8	29.8
RTU-1A	27.5	27.5
RTU-1B	29.9	29.9
RTU-1C	29.0	29.0
RTU-2A	27.3	27.3
RTU-2B	30.5	30.5
RTU-2C	25.9	25.9
RTU-3A	23.8	23.8
RTU-3B	18.7	18.7
RTU-3C	22.5	22.5
RTU-4A	28.3	28.3
RTU-4B	30.4	30.4
RTU-5A	26.8	26.8
RTU-5B	30.1	30.1
RTU-6A	26.9	26.9
RTU-6B	28.8	28.8
RTU-7A	30.0	30.0
RTU-7B	29.8	29.8
RTU-8A	26.2	26.2
RTU-8B	28.5	28.5
Vacuum1	27.4	27.4
Vacuum2	27.0	27.0
Vacuum3	26.7	26.7
Vacuum4	27.8	27.8
Vacuum5	27.5	27.5
Vacuum6	27.1	27.1
Vacuum7	26.8	26.8
Vacuum8	24.9	24.9
Vacuum9	26.1	26.1
Vacuum10	25.9	25.9
Vacuum11	25.7	25.7
Vacuum12	26.0	26.0
Vacuum13	26.0	26.0
Vacuum14	26.2	26.2
Vacuum15	26.4	26.4
Vacuum16	24.7	24.7
Vacuum17	24.9	24.9
Vacuum18	27.4	27.4
Vacuum19	27.6	27.6
Vacuum20	27.9	27.9
Vacuum21	26.0	26.0
Vacuum22	26.3	26.3
19	2.Fl	
Blowers	49.7	38.7
Body Shop A	40.8	40.8
Body Shop B	46.6	46.6
Body Shop C	35.4	35.4
CU-1A	-13.1	-13.1
CU-1B	-3.7	-3.7
CU-1C	-8.7	-8.7
CU-2A	-13.2	-13.2
CU-2B	-3.7	-3.7
CU-2C	-12.1	-12.1
CU-3A	-14.7	-14.7
CU-3B	-6.6	-6.6
Detail Bay Vacuum 1	30.0	30.0
Detail Bay Vacuum 2	30.1	30.1
Detail Bay Vacuum 3	30.0	30.0
Detail Bay Vacuum 4	30.1	30.1
Detail Bay Vacuum 5	30.1	30.1
Detail Bay Vacuum 6	30.2	30.2
RTU-1A	27.7	27.7
RTU-1B	30.4	30.4
RTU-1C	29.4	29.4
RTU-2A	27.7	27.7
RTU-2B	31.3	31.3
RTU-2C	26.3	26.3
RTU-3A	24.0	24.0
RTU-3B	19.2	19.2
RTU-3C	25.4	25.4
RTU-4A	28.9	28.9
RTU-4B	31.3	31.3
RTU-5A	27.4	27.4
RTU-5B	31.2	31.2
RTU-6A	27.2	27.2
RTU-6B	32.1	32.1
RTU-7A	30.7	30.7
RTU-7B	33.0	33.0
RTU-8A	26.5	26.5
RTU-8B	31.3	31.3
Vacuum1	28.2	28.2
Vacuum2	27.8	27.8
Vacuum3	27.4	27.4
Vacuum4	28.4	28.4
Vacuum5	28.1	28.1
Vacuum6	27.8	27.8
Vacuum7	27.4	27.4
Vacuum8	25.5	25.5
Vacuum9	26.7	26.7
Vacuum10	26.4	26.4
Vacuum11	26.2	26.2
Vacuum12	26.5	26.5
Vacuum13	26.5	26.5
Vacuum14	26.7	26.7
Vacuum15	27.0	27.0
Vacuum16	25.3	25.3
Vacuum17	25.5	25.5
Vacuum18	28.0	28.0
Vacuum19	28.3	28.3
Vacuum20	28.6	28.6
Vacuum21	26.7	26.7
Vacuum22	27.0	27.0

20	1.Fl	
Blowers	46.8	35.8
Body Shop A	42.5	42.5
Body Shop B	45.1	45.1
Body Shop C	34.2	34.2
CU-1A	-12.5	-12.5
CU-1B	-8.9	-8.9
CU-1C	-10.0	-10.0
CU-2A	-12.7	-12.7
CU-2B	-9.0	-9.0
CU-2C	-15.1	-15.1
CU-3A	-11.1	-11.1
CU-3B	-11.9	-11.9
Detail Bay Vacuum 1	30.9	30.9
Detail Bay Vacuum 2	31.0	31.0
Detail Bay Vacuum 3	31.0	31.0
Detail Bay Vacuum 4	31.0	31.0
Detail Bay Vacuum 5	31.1	31.1
Detail Bay Vacuum 6	31.1	31.1
RTU-1A	28.7	28.7
RTU-1B	29.8	29.8
RTU-1C	28.4	28.4
RTU-2A	28.6	28.6
RTU-2B	31.0	31.0
RTU-2C	25.3	25.3
RTU-3A	26.5	26.5
RTU-3B	28.5	28.5
RTU-3C	22.1	22.1
RTU-4A	29.4	29.4
RTU-4B	30.9	30.9
RTU-5A	27.8	27.8
RTU-5B	30.6	30.6
RTU-6A	28.0	28.0
RTU-6B	29.3	29.3
RTU-7A	30.5	30.5
RTU-7B	27.3	27.3
RTU-8A	27.8	27.8
RTU-8B	28.9	28.9
Vacuum1	24.1	24.1
Vacuum2	23.9	23.9
Vacuum3	25.2	25.2
Vacuum4	25.1	25.1
Vacuum5	24.9	24.9
Vacuum6	24.7	24.7
Vacuum7	24.4	24.4
Vacuum8	24.2	24.2
Vacuum9	24.0	24.0
Vacuum10	23.9	23.9
Vacuum11	23.7	23.7
Vacuum12	23.9	23.9
Vacuum13	24.0	24.0
Vacuum14	24.0	24.0
Vacuum15	24.2	24.2
Vacuum16	24.4	24.4
Vacuum17	22.4	22.4
Vacuum18	24.8	24.8
Vacuum19	24.9	24.9
Vacuum20	25.1	25.1
Vacuum21	25.2	25.2
Vacuum22	23.1	23.1
20	2.Fl	
Blowers	46.9	35.9
Body Shop A	42.8	42.8
Body Shop B	45.8	45.8
Body Shop C	34.6	34.6
CU-1A	-11.8	-11.8
CU-1B	-6.5	-6.5
CU-1C	-9.7	-9.7
CU-2A	-11.9	-11.9
CU-2B	-6.6	-6.6
CU-2C	-12.6	-12.6
CU-3A	-10.9	-10.9
CU-3B	-9.3	-9.3
Detail Bay Vacuum 1	31.2	31.2
Detail Bay Vacuum 2	31.2	31.2
Detail Bay Vacuum 3	31.3	31.3
Detail Bay Vacuum 4	31.3	31.3
Detail Bay Vacuum 5	31.4	31.4
Detail Bay Vacuum 6	31.4	31.4
RTU-1A	29.0	29.0
RTU-1B	30.3	30.3
RTU-1C	28.7	28.7
RTU-2A	29.0	29.0
RTU-2B	31.7	31.7
RTU-2C	25.7	25.7
RTU-3A	26.8	26.8
RTU-3B	29.2	29.2
RTU-3C	24.9	24.9
RTU-4A	30.1	30.1
RTU-4B	31.7	31.7
RTU-5A	28.6	28.6
RTU-5B	31.6	31.6
RTU-6A	28.3	28.3
RTU-6B	32.6	32.6
RTU-7A	31.4	31.4
RTU-7B	30.0	30.0
RTU-8A	28.1	28.1
RTU-8B	30.8	30.8
Vacuum1	24.6	24.6
Vacuum2	24.4	24.4
Vacuum3	25.7	25.7
Vacuum4	25.6	25.6
Vacuum5	25.4	25.4
Vacuum6	25.2	25.2
Vacuum7	24.9	24.9
Vacuum8	24.7	24.7
Vacuum9	24.5	24.5
Vacuum10	24.3	24.3
Vacuum11	24.0	24.0
Vacuum12	24.2	24.2
Vacuum13	24.4	24.4
Vacuum14	24.4	24.4
Vacuum15	24.6	24.6
Vacuum16	24.8	24.8
Vacuum17	22.8	22.8
Vacuum18	25.2	25.2
Vacuum19	25.4	25.4
Vacuum20	25.5	25.5
Vacuum21	25.7	25.7
Vacuum22	23.6	23.6

21	1.Fl	
Blowers	44.4	33.4
Body Shop A	43.8	43.8
Body Shop B	45.0	45.0
Body Shop C	28.7	28.7
CU-1A	-11.0	-11.0
CU-1B	-9.4	-9.4
CU-1C	-16.5	-16.5
CU-2A	-11.3	-11.3
CU-2B	-9.6	-9.6
CU-2C	-16.1	-16.1
CU-3A	-9.4	-9.4
CU-3B	-9.6	-9.6
Detail Bay Vacuum 1	32.4	32.4
Detail Bay Vacuum 2	32.4	32.4
Detail Bay Vacuum 3	32.5	32.5
Detail Bay Vacuum 4	32.5	32.5
Detail Bay Vacuum 5	32.5	32.5
Detail Bay Vacuum 6	32.5	32.5
RTU-1A	30.4	30.4
RTU-1B	30.7	30.7
RTU-1C	23.9	23.9
RTU-2A	31.1	31.1
RTU-2B	31.8	31.8
RTU-2C	22.8	22.8
RTU-3A	28.3	28.3
RTU-3B	27.9	27.9
RTU-3C	19.0	19.0
RTU-4A	29.7	29.7
RTU-4B	30.4	30.4
RTU-5A	29.2	29.2
RTU-5B	31.0	31.0
RTU-6A	29.4	29.4
RTU-6B	30.1	30.1
RTU-7A	30.6	30.6
RTU-7B	27.9	27.9
RTU-8A	30.8	30.8
RTU-8B	29.6	29.6
Vacuum1	21.1	21.1
Vacuum2	22.8	22.8
Vacuum3	22.7	22.7
Vacuum4	22.6	22.6
Vacuum5	22.5	22.5
Vacuum6	20.6	20.6
Vacuum7	22.2	22.2
Vacuum8	22.0	22.0
Vacuum9	21.9	21.9
Vacuum10	21.8	21.8
Vacuum11	21.7	21.7
Vacuum12	21.8	21.8
Vacuum13	21.9	21.9
Vacuum14	21.8	21.8
Vacuum15	21.9	21.9
Vacuum16	22.1	22.1
Vacuum17	22.1	22.1
Vacuum18	22.3	22.3
Vacuum19	22.4	22.4
Vacuum20	22.5	22.5
Vacuum21	22.6	22.6
Vacuum22	20.4	20.4
21	2.Fl	
Blowers	44.5	33.5
Body Shop A	44.2	44.2
Body Shop B	45.5	45.5
Body Shop C	29.0	29.0
CU-1A	-10.1	-10.1
CU-1B	-7.6	-7.6
CU-1C	-14.8	-14.8
CU-2A	-10.3	-10.3
CU-2B	-6.8	-6.8
CU-2C	-13.8	-13.8
CU-3A	-9.0	-9.0
CU-3B	-8.1	-8.1
Detail Bay Vacuum 1	32.8	32.8
Detail Bay Vacuum 2	32.8	32.8
Detail Bay Vacuum 3	32.8	32.8
Detail Bay Vacuum 4	32.8	32.8
Detail Bay Vacuum 5	32.9	32.9
Detail Bay Vacuum 6	32.9	32.9
RTU-1A	30.8	30.8
RTU-1B	31.7	31.7
RTU-1C	26.0	26.0
RTU-2A	31.9	31.9
RTU-2B	33.3	33.3
RTU-2C	24.6	24.6
RTU-3A	28.8	28.8
RTU-3B	28.5	28.5
RTU-3C	21.2	21.2
RTU-4A	30.5	30.5
RTU-4B	32.8	32.8
RTU-5A	30.2	30.2
RTU-5B	32.3	32.3
RTU-6A	29.8	29.8
RTU-6B	31.8	31.8
RTU-7A	31.9	31.9
RTU-7B	29.9	29.9
RTU-8A	32.4	32.4
RTU-8B	31.4	31.4
Vacuum1	21.5	21.5
Vacuum2	23.1	23.1
Vacuum3	23.0	23.0
Vacuum4	22.9	22.9
Vacuum5	22.8	22.8
Vacuum6	20.9	20.9
Vacuum7	22.5	22.5
Vacuum8	22.4	22.4
Vacuum9	22.3	22.3
Vacuum10	22.2	22.2
Vacuum11	22.0	22.0
Vacuum12	22.1	22.1
Vacuum13	22.2	22.2
Vacuum14	22.2	22.2
Vacuum15	22.3	22.3
Vacuum16	22.4	22.4
Vacuum17	22.5	22.5
Vacuum18	22.7	22.7
Vacuum19	22.8	22.8
Vacuum20	22.9	22.9
Vacuum21	23.0	23.0
Vacuum22	20.7	20.7

22	1.Fl	
Blowers	42.2	31.2
Body Shop A	44.3	44.3
Body Shop B	43.9	43.9
Body Shop C	27.4	27.4
CU-1A	-8.1	-8.1
CU-1B	-12.2	-12.2
CU-1C	-18.4	-18.4
CU-2A	-8.5	-8.5
CU-2B	-12.3	-12.3
CU-2C	-17.8	-17.8
CU-3A	-8.2	-8.2
CU-3B	-9.4	-9.4
Detail Bay Vacuum 1	33.5	33.5
Detail Bay Vacuum 2	33.5	33.5
Detail Bay Vacuum 3	31.3	31.3
Detail Bay Vacuum 4	31.4	31.4
Detail Bay Vacuum 5	31.4	31.4
Detail Bay Vacuum 6	31.4	31.4
RTU-1A	30.5	30.5
RTU-1B	29.5	29.5
RTU-1C	22.5	22.5
RTU-2A	33.2	33.2
RTU-2B	30.4	30.4
RTU-2C	21.5	21.5
RTU-3A	29.5	29.5
RTU-3B	28.3	28.3
RTU-3C	20.0	20.0
RTU-4A	31.6	31.6
RTU-4B	28.8	28.8
RTU-5A	31.5	31.5
RTU-5B	28.4	28.4
RTU-6A	31.0	31.0
RTU-6B	23.9	23.9
RTU-7A	27.7	27.7
RTU-7B	29.1	29.1
RTU-8A	30.0	30.0
RTU-8B	31.6	31.6
Vacuum1	18.4	18.4
Vacuum2	20.3	20.3
Vacuum3	20.2	20.2
Vacuum4	20.1	20.1
Vacuum5	20.1	20.1
Vacuum6	19.9	19.9
Vacuum7	19.9	19.9
Vacuum8	19.8	19.8
Vacuum9	19.7	19.7
Vacuum10	17.8	17.8
Vacuum11	19.6	19.6
Vacuum12	19.7	19.7
Vacuum13	19.7	19.7
Vacuum14	19.6	19.6
Vacuum15	19.7	19.7
Vacuum16	19.8	19.8
Vacuum17	19.8	19.8
Vacuum18	17.6	17.6
Vacuum19	20.0	20.0
Vacuum20	20.1	20.1
Vacuum21	20.2	20.2
Vacuum22	17.8	17.8
22	2.Fl	
Blowers	42.2	31.2
Body Shop A	44.8	44.8
Body Shop B	44.4	44.4
Body Shop C	27.8	27.8
CU-1A	-7.4	-7.4
CU-1B	-10.5	-10.5
CU-1C	-17.1	-17.1
CU-2A	-7.7	-7.7
CU-2B	-10.7	-10.7
CU-2C	-15.8	-15.8
CU-3A	-7.0	-7.0
CU-3B	-8.9	-8.9
Detail Bay Vacuum 1	33.9	33.9
Detail Bay Vacuum 2	33.9	33.9
Detail Bay Vacuum 3	31.7	31.7
Detail Bay Vacuum 4	31.8	31.8
Detail Bay Vacuum 5	31.8	31.8
Detail Bay Vacuum 6	31.8	31.8
RTU-1A	31.5	31.5
RTU-1B	30.8	30.8
RTU-1C	24.4	24.4
RTU-2A	34.1	34.1
RTU-2B	31.6	31.6
RTU-2C	23.2	23.2
RTU-3A	30.0	30.0
RTU-3B	28.7	28.7
RTU-3C	21.9	21.9
RTU-4A	32.5	32.5
RTU-4B	30.3	30.3
RTU-5A	32.5	32.5
RTU-5B	29.7	29.7
RTU-6A	31.5	31.5
RTU-6B	27.1	27.1
RTU-7A	30.2	30.2
RTU-7B	30.7	30.7
RTU-8A	32.2	32.2
RTU-8B	31.8	31.8
Vacuum1	18.7	18.7
Vacuum2	20.5	20.5
Vacuum3	20.5	20.5
Vacuum4	20.4	20.4
Vacuum5	20.3	20.3
Vacuum6	20.2	20.2
Vacuum7	20.1	20.1
Vacuum8	20.0	20.0
Vacuum9	20.0	20.0
Vacuum10	18.1	18.1
Vacuum11	19.8	19.8
Vacuum12	19.9	19.9
Vacuum13	20.0	20.0
Vacuum14	19.9	19.9
Vacuum15	19.9	19.9
Vacuum16	20.0	20.0
Vacuum17	20.1	20.1
Vacuum18	17.9	17.9
Vacuum19	20.3	20.3
Vacuum20	20.3	20.3
Vacuum21	20.4	20.4
Vacuum22	18.1	18.1

23	1.Fl	
Blowers	40.8	29.8
Body Shop A	44.4	44.4
Body Shop B	42.9	42.9
Body Shop C	26.5	26.5
CU-1A	-6.6	-6.6
CU-1B	-13.5	-13.5
CU-1C	-20.0	-20.0
CU-2A	-6.7	-6.7
CU-2B	-13.6	-13.6
CU-2C	-17.2	-17.2
CU-3A	-11.3	-11.3
CU-3B	-10.8	-10.8
Detail Bay Vacuum 1	31.3	31.3
Detail Bay Vacuum 2	31.2	31.2
Detail Bay Vacuum 3	31.2	31.2
Detail Bay Vacuum 4	31.1	31.1
Detail Bay Vacuum 5	31.1	31.1
Detail Bay Vacuum 6	31.0	31.0
RTU-1A	29.7	29.7
RTU-1B	28.2	28.2
RTU-1C	21.7	21.7
RTU-2A	30.3	30.3
RTU-2B	28.2	28.2
RTU-2C	20.3	20.3
RTU-3A	29.0	29.0
RTU-3B	26.7	26.7
RTU-3C	20.5	20.5
RTU-4A	32.7	32.7
RTU-4B	27.7	27.7
RTU-5A	32.7	32.7
RTU-5B	27.0	27.0
RTU-6A	31.6	31.6
RTU-6B	25.4	25.4
RTU-7A	27.0	27.0
RTU-7B	29.6	29.6
RTU-8A	27.7	27.7
RTU-8B	27.0	27.0
Vacuum1	16.9	16.9
Vacuum2	18.8	18.8
Vacuum3	18.8	18.8
Vacuum4	18.7	18.7
Vacuum5	16.7	16.7
Vacuum6	18.6	18.6
Vacuum7	18.5	18.5
Vacuum8	18.5	18.5
Vacuum9	18.4	18.4
Vacuum10	18.5	18.5
Vacuum11	18.3	18.3
Vacuum12	18.4	18.4
Vacuum13	18.4	18.4
Vacuum14	18.3	18.3
Vacuum15	18.4	18.4
Vacuum16	18.4	18.4
Vacuum17	18.5	18.5
Vacuum18	16.2	16.2
Vacuum19	18.6	18.6
Vacuum20	18.7	18.7
Vacuum21	18.7	18.7
Vacuum22	16.4	16.4
23	2.Fl	
Blowers	40.8	29.8
Body Shop A	45.0	45.0
Body Shop B	43.4	43.4
Body Shop C	26.7	26.7
CU-1A	-5.2	-5.2
CU-1B	-12.1	-12.1
CU-1C	-18.9	-18.9
CU-2A	-5.3	-5.3
CU-2B	-12.3	-12.3
CU-2C	-15.5	-15.5
CU-3A	-8.7	-8.7
CU-3B	-10.5	-10.5
Detail Bay Vacuum 1	31.7	31.7
Detail Bay Vacuum 2	31.6	31.6
Detail Bay Vacuum 3	31.6	31.6
Detail Bay Vacuum 4	31.5	31.5
Detail Bay Vacuum 5	31.5	31.5
Detail Bay Vacuum 6	31.4	31.4
RTU-1A	30.2	30.2
RTU-1B	29.3	29.3
RTU-1C	23.4	23.4
RTU-2A	31.0	31.0
RTU-2B	29.2	29.2
RTU-2C	21.9	21.9
RTU-3A	29.6	29.6
RTU-3B	27.0	27.0
RTU-3C	22.0	22.0
RTU-4A	33.6	33.6
RTU-4B	28.6	28.6
RTU-5A	33.7	33.7
RTU-5B	28.2	28.2
RTU-6A	32.2	32.2
RTU-6B	28.4	28.4
RTU-7A	28.5	28.5
RTU-7B	30.6	30.6
RTU-8A	30.3	30.3
RTU-8B	28.5	28.5
Vacuum1	17.1	17.1
Vacuum2	19.0	19.0
Vacuum3	19.0	19.0
Vacuum4	18.9	18.9
Vacuum5	16.9	16.9
Vacuum6	18.8	18.8
Vacuum7	18.7	18.7
Vacuum8	18.7	18.7
Vacuum9	18.6	18.6
Vacuum10	18.7	18.7
Vacuum11	18.5	18.5
Vacuum12	18.6	18.6
Vacuum13	18.6	18.6
Vacuum14	18.5	18.5
Vacuum15	18.6	18.6
Vacuum16	18.6	18.6
Vacuum17	18.7	18.7
Vacuum18	16.4	16.4
Vacuum19	18.8	18.8
Vacuum20	18.9	18.9
Vacuum21	18.9	18.9
Vacuum22	16.6	16.6

24	1.Fl	
Blowers	39.5	28.5
Body Shop A	44.3	44.3
Body Shop B	41.5	41.5
Body Shop C	25.6	25.6
CU-1A	-8.2	-8.2
CU-1B	-14.6	-14.6
CU-1C	-22.6	-22.6
CU-2A	-8.3	-8.3
CU-2B	-14.7	-14.7
CU-2C	-16.0	-16.0
CU-3A	-10.3	-10.3
CU-3B	-12.2	-12.2
Detail Bay Vacuum 1	21.3	21.3
Detail Bay Vacuum 2	26.4	26.4
Detail Bay Vacuum 3	29.0	29.0
Detail Bay Vacuum 4	30.3	30.3
Detail Bay Vacuum 5	30.2	30.2
Detail Bay Vacuum 6	30.0	30.0
RTU-1A	30.6	30.6
RTU-1B	27.5	27.5
RTU-1C	21.2	21.2
RTU-2A	31.6	31.6
RTU-2B	27.0	27.0
RTU-2C	20.8	20.8
RTU-3A	20.9	20.9
RTU-3B	23.9	23.9
RTU-3C	21.0	21.0
RTU-4A	31.6	31.6
RTU-4B	27.5	27.5
RTU-5A	31.4	31.4
RTU-5B	25.7	25.7
RTU-6A	31.7	31.7
RTU-6B	25.9	25.9
RTU-7A	30.5	30.5
RTU-7B	29.5	29.5
RTU-8A	29.1	29.1
RTU-8B	25.8	25.8
Vacuum1	15.4	15.4
Vacuum2	17.4	17.4
Vacuum3	17.4	17.4
Vacuum4	17.4	17.4
Vacuum5	15.3	15.3
Vacuum6	17.2	17.2
Vacuum7	17.2	17.2
Vacuum8	17.2	17.2
Vacuum9	17.1	17.1
Vacuum10	17.2	17.2
Vacuum11	17.0	17.0
Vacuum12	17.1	17.1
Vacuum13	17.1	17.1
Vacuum14	17.1	17.1
Vacuum15	17.1	17.1
Vacuum16	17.1	17.1
Vacuum17	17.2	17.2
Vacuum18	14.9	14.9
Vacuum19	17.3	17.3
Vacuum20	17.3	17.3
Vacuum21	17.4	17.4
Vacuum22	15.0	15.0
24	2.Fl	
Blowers	39.5	28.5
Body Shop A	45.1	45.1
Body Shop B	42.0	42.0
Body Shop C	26.3	26.3
CU-1A	-7.0	-7.0
CU-1B	-13.6	-13.6
CU-1C	-21.7	-21.7
CU-2A	-7.1	-7.1
CU-2B	-13.7	-13.7
CU-2C	-13.9	-13.9
CU-3A	-7.6	-7.6
CU-3B	-12.0	-12.0
Detail Bay Vacuum 1	22.0	22.0
Detail Bay Vacuum 2	28.1	28.1
Detail Bay Vacuum 3	30.3	30.3
Detail Bay Vacuum 4	30.7	30.7
Detail Bay Vacuum 5	30.6	30.6
Detail Bay Vacuum 6	30.5	30.5
RTU-1A	31.7	31.7
RTU-1B	27.8	27.8
RTU-1C	22.6	22.6
RTU-2A	32.6	32.6
RTU-2B	27.5	27.5
RTU-2C	21.9	21.9
RTU-3A	21.5	21.5
RTU-3B	24.2	24.2
RTU-3C	23.2	23.2
RTU-4A	32.7	32.7
RTU-4B	28.4	28.4
RTU-5A	32.6	32.6
RTU-5B	26.7	26.7
RTU-6A	32.3	32.3
RTU-6B	27.1	27.1
RTU-7A	32.2	32.2
RTU-7B	30.0	30.0
RTU-8A	30.5	30.5
RTU-8B	26.5	26.5
Vacuum1	15.6	15.6
Vacuum2	17.6	17.6
Vacuum3	17.6	17.6
Vacuum4	17.6	17.6
Vacuum5	15.5	15.5
Vacuum6	17.4	17.4
Vacuum7	17.4	17.4
Vacuum8	17.3	17.3
Vacuum9	17.3	17.3
Vacuum10	17.4	17.4
Vacuum11	17.2	17.2
Vacuum12	17.3	17.3
Vacuum13	17.3	17.3
Vacuum14	17.2	17.2
Vacuum15	17.3	17.3
Vacuum16	17.3	17.3
Vacuum17	17.3	17.3
Vacuum18	15.1	15.1
Vacuum19	17.5	17.5
Vacuum20	17.5	17.5
Vacuum21	17.5	17.5
Vacuum22	15.2	15.2

25	1.Fl	
Blowers	38.8	27.8
Body Shop A	44.7	44.7
Body Shop B	41.2	41.2
Body Shop C	25.0	25.0
CU-1A	-7.3	-7.3
CU-1B	-15.2	-15.2
CU-1C	-23.0	-23.0
CU-2A	-7.4	-7.4
CU-2B	-15.2	-15.2
CU-2C	-16.5	-16.5
CU-3A	-12.5	-12.5
CU-3B	-13.0	-13.0
Detail Bay Vacuum 1	16.4	16.4
Detail Bay Vacuum 2	17.5	17.5
Detail Bay Vacuum 3	18.6	18.6
Detail Bay Vacuum 4	19.9	19.9
Detail Bay Vacuum 5	24.9	24.9
Detail Bay Vacuum 6	27.0	27.0
RTU-1A	29.3	29.3
RTU-1B	26.7	26.7
RTU-1C	21.6	21.6
RTU-2A	29.9	29.9
RTU-2B	26.2	26.2
RTU-2C	20.6	20.6
RTU-3A	17.6	17.6
RTU-3B	21.7	21.7
RTU-3C	21.1	21.1
RTU-4A	29.8	29.8
RTU-4B	25.6	25.6
RTU-5A	27.0	27.0
RTU-5B	25.1	25.1
RTU-6A	28.4	28.4
RTU-6B	26.1	26.1
RTU-7A	27.9	27.9
RTU-7B	29.3	29.3
RTU-8A	25.4	25.4
RTU-8B	25.0	25.0
Vacuum1	14.6	14.6
Vacuum2	16.7	16.7
Vacuum3	16.7	16.7
Vacuum4	16.6	16.6
Vacuum5	14.5	14.5
Vacuum6	16.5	16.5
Vacuum7	16.5	16.5
Vacuum8	16.4	16.4
Vacuum9	16.4	16.4
Vacuum10	16.5	16.5
Vacuum11	16.4	16.4
Vacuum12	16.4	16.4
Vacuum13	16.4	16.4
Vacuum14	16.3	16.3
Vacuum15	16.4	16.4
Vacuum16	16.4	16.4
Vacuum17	16.4	16.4
Vacuum18	14.1	14.1
Vacuum19	16.6	16.6
Vacuum20	16.6	16.6
Vacuum21	16.6	16.6
Vacuum22	14.2	14.2
25	2.Fl	
Blowers	38.8	27.8
Body Shop A	45.4	45.4
Body Shop B	41.7	41.7
Body Shop C	25.4	25.4
CU-1A	-5.1	-5.1
CU-1B	-14.3	-14.3
CU-1C	-22.2	-22.2
CU-2A	-5.1	-5.1
CU-2B	-14.3	-14.3
CU-2C	-15.4	-15.4
CU-3A	-8.9	-8.9
CU-3B	-12.5	-12.5
Detail Bay Vacuum 1	17.2	17.2
Detail Bay Vacuum 2	18.5	18.5
Detail Bay Vacuum 3	19.8	19.8
Detail Bay Vacuum 4	21.9	21.9
Detail Bay Vacuum 5	26.7	26.7
Detail Bay Vacuum 6	28.4	28.4
RTU-1A	29.8	29.8
RTU-1B	27.0	27.0
RTU-1C	23.0	23.0
RTU-2A	30.6	30.6
RTU-2B	26.7	26.7
RTU-2C	21.6	21.6
RTU-3A	18.0	18.0
RTU-3B	21.9	21.9
RTU-3C	22.4	22.4
RTU-4A	30.7	30.7
RTU-4B	26.3	26.3
RTU-5A	30.5	30.5
RTU-5B	26.0	26.0
RTU-6A	31.7	31.7
RTU-6B	26.3	26.3
RTU-7A	31.0	31.0
RTU-7B	29.6	29.6
RTU-8A	28.1	28.1
RTU-8B	25.6	25.6
Vacuum1	14.8	14.8
Vacuum2	16.9	16.9
Vacuum3	16.8	16.8
Vacuum4	16.8	16.8
Vacuum5	14.7	14.7
Vacuum6	16.7	16.7
Vacuum7	16.6	16.6
Vacuum8	16.6	16.6
Vacuum9	16.6	16.6
Vacuum10	16.6	16.6
Vacuum11	16.5	16.5
Vacuum12	16.6	16.6
Vacuum13	16.6	16.6
Vacuum14	16.5	16.5
Vacuum15	16.5	16.5
Vacuum16	16.6	16.6
Vacuum17	16.6	16.6
Vacuum18	14.3	14.3
Vacuum19	16.7	16.7
Vacuum20	16.8	16.8
Vacuum21	16.8	16.8
Vacuum22	14.4	14.4

ATTACHMENT 5

FHWA RD-77-108 – Vehicle Traffic Noise

FHWA RD-77-108

Traffic Noise Prediction Model

Data Input Sheet

Project Name : Santee Auto Center Project
Project Number : 9999
Modeled Condition : Existing

Surface Refelction: CNEL
Assessment Metric: Hard
Peak ratio to ADT: 10.0
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	Mission Gorge Road	Carlton Hills Boulevard to Cuyamaca Street	38,720	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
2		Cuyamaca Street to Cottonwood Avenue	26,060	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
3		Cottonwood Avenue to Edgemoor Drive	25,460	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
4		Edgemoor Drive to Magnolia Avenue	25,460	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
5	Mast Boulevard	Carlton Hills Boulevard to Cuyamaca Street	20,600	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
6		Cuyamaca Street to Magnolia Avenue	18,860	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
7		Magnolia Avenue to Los Ranchitos	7,860	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
8	Carlton Hills Boulevard	Mast Boulevard to Carlton Oaks Drive	10,230	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
9		Carlton Oaks Drive to Mission Gorge Road	25,460	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
10	Cuyamaca Street	El Nopal to Mast Boulevard	9,040	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
11		Mast Boulevard to Mission Gorge Road	27,220	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
12		Mission Gorge Road to SR-52 Ramps	39,500	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
13		SR-52 Ramps to Prospect Avenue	26,580	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
14	Magnolia Avenue	El Nopal to Mast Boulevard	13,960	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
15		Mast Boulevard to Mission Gorge Road	26,350	45	50	95.00	3.00	2.00	77.00	10.00	13.00	
16		Mission Gorge Road to Prospect Avenue	34,550	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
17	Woodside Avenue	Magnolia Avenue to SR-67 Eastbound Ramps	27,750	45	50	95.00	3.00	2.00	77.00	10.00	13.00	

FHWA RD-77-108

Traffic Noise Prediction Model

Predicted Noise Levels

Project Name : Santee Auto Center Project
Project Number : 9999
Modeled Condition : Existing
Assessment Metric: Hard

			Noise Levels, dBA Hard					Distance to Traffic Noise Level Contours, Feet				
Segment	Roadway	Segment	Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	Mission Gorge Road	Carlton Hills Boulevard to Cuyamaca Street	70.2	64.9	68.4	73.1	32	102	323	1,021	3,228	10,209
2		Cuyamaca Street to Cottonwood Avenue	70.2	64.1	67.2	72.6	29	91	288	910	2,877	9,099
3		Cottonwood Avenue to Edgemoor Drive	70.1	64.0	67.1	72.5	28	89	281	889	2,812	8,891
4		Edgemoor Drive to Magnolia Avenue	70.1	64.0	67.1	72.5	28	89	281	889	2,812	8,891
5	Mast Boulevard	Carlton Hills Boulevard to Cuyamaca Street	69.2	63.1	66.2	71.6	23	72	229	723	2,285	7,227
6		Cuyamaca Street to Magnolia Avenue	68.8	62.7	65.8	71.2	21	66	208	659	2,084	6,591
7		Magnolia Avenue to Los Ranchitos	63.3	58.0	61.4	66.2	7	21	66	208	659	2,084
8	Carlton Hills Boulevard	Mast Boulevard to Carlton Oaks Drive	64.5	59.1	62.6	67.3	8	27	85	269	849	2,685
9		Carlton Oaks Drive to Mission Gorge Road	68.4	63.1	66.5	71.3	21	67	213	674	2,133	6,745
10	Cuyamaca Street	El Nopal to Mast Boulevard	63.9	58.6	62.0	66.8	8	24	76	239	757	2,393
11		Mast Boulevard to Mission Gorge Road	68.7	63.4	66.8	71.6	23	72	229	723	2,285	7,227
12		Mission Gorge Road to SR-52 Ramps	70.3	65.0	68.5	73.2	33	104	330	1,045	3,303	10,446
13		SR-52 Ramps to Prospect Avenue	68.6	63.3	66.7	71.5	22	71	223	706	2,233	7,063
14	Magnolia Avenue	El Nopal to Mast Boulevard	67.5	61.4	64.5	69.9	15	49	155	489	1,545	4,886
15		Mast Boulevard to Mission Gorge Road	71.7	65.0	67.7	73.8	38	120	379	1,199	3,793	11,994
16		Mission Gorge Road to Prospect Avenue	71.4	65.3	68.4	73.8	38	120	379	1,199	3,793	11,994
17	Woodside Avenue	Magnolia Avenue to SR-67 Eastbound Ramps	71.9	65.2	67.9	74.0	40	126	397	1,256	3,972	12,559

FHWA RD-77-108

Traffic Noise Prediction Model

Data Input Sheet

Project Name : Santee Auto Center Project
Project Number : 9999
Modeled Condition : Existing + Project

Surface Refelction: CNEL
Assessment Metric: Hard
Peak ratio to ADT: 10.0
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	Mission Gorge Road	Carlton Hills Boulevard to Cuyamaca Street	39,050	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
2		Cuyamaca Street to Cottonwood Avenue	28,300	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
3		Cottonwood Avenue to Edgemoor Drive	27,700	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
4		Edgemoor Drive to Magnolia Avenue	26,460	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
5	Mast Boulevard	Carlton Hills Boulevard to Cuyamaca Street	20,730	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
6		Cuyamaca Street to Magnolia Avenue	18,890	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
7		Magnolia Avenue to Los Ranchitos	8,030	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
8	Carlton Hills Boulevard	Mast Boulevard to Carlton Oaks Drive	10,460	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
9		Carlton Oaks Drive to Mission Gorge Road	25,790	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
10	Cuyamaca Street	El Nopal to Mast Boulevard	9,210	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
11		Mast Boulevard to Mission Gorge Road	27,550	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
12		Mission Gorge Road to SR-52 Ramps	41,070	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
13		SR-52 Ramps to Prospect Avenue	27,010	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
14	Magnolia Avenue	El Nopal to Mast Boulevard	14,130	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
15		Mast Boulevard to Mission Gorge Road	26,680	45	50	95.00	3.00	2.00	77.00	10.00	13.00	
16		Mission Gorge Road to Prospect Avenue	34,880	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
17	Woodside Avenue	Magnolia Avenue to SR-67 Eastbound Ramps	28,080	45	50	95.00	3.00	2.00	77.00	10.00	13.00	

FHWA RD-77-108

Traffic Noise Prediction Model

Predicted Noise Levels

Project Name : Santee Auto Center Project
Project Number : 9999
Modeled Condition : Existing + Project
Assessment Metric: Hard

			Noise Levels, dBA Hard					Distance to Traffic Noise Level Contours, Feet				
Segment	Roadway	Segment	Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	Mission Gorge Road	Carlton Hills Boulevard to Cuyamaca Street	70.3	65.0	68.4	73.2	33	104	330	1,045	3,303	10,446
2		Cuyamaca Street to Cottonwood Avenue	70.6	64.5	67.5	73.0	32	100	315	998	3,155	9,976
3		Cottonwood Avenue to Edgemoor Drive	70.5	64.4	67.4	72.9	31	97	308	975	3,083	9,749
4		Edgemoor Drive to Magnolia Avenue	70.3	64.2	67.2	72.7	29	93	294	931	2,944	9,310
5	Mast Boulevard	Carlton Hills Boulevard to Cuyamaca Street	69.2	63.1	66.2	71.6	23	72	229	723	2,285	7,227
6		Cuyamaca Street to Magnolia Avenue	68.8	62.7	65.8	71.2	21	66	208	659	2,084	6,591
7		Magnolia Avenue to Los Ranchitos	63.4	58.1	61.5	66.3	7	21	67	213	674	2,133
8	Carlton Hills Boulevard	Mast Boulevard to Carlton Oaks Drive	64.6	59.2	62.7	67.4	9	27	87	275	869	2,748
9		Carlton Oaks Drive to Mission Gorge Road	68.5	63.2	66.6	71.4	22	69	218	690	2,183	6,902
10	Cuyamaca Street	El Nopal to Mast Boulevard	64.0	58.7	62.1	66.9	8	24	77	245	774	2,449
11		Mast Boulevard to Mission Gorge Road	68.8	63.5	66.9	71.6	23	72	229	723	2,285	7,227
12		Mission Gorge Road to SR-52 Ramps	70.5	65.2	68.6	73.4	35	109	346	1,094	3,459	10,939
13		SR-52 Ramps to Prospect Avenue	68.7	63.4	66.8	71.6	23	72	229	723	2,285	7,227
14	Magnolia Avenue	El Nopal to Mast Boulevard	67.5	61.5	64.5	70.0	16	50	158	500	1,581	5,000
15		Mast Boulevard to Mission Gorge Road	71.8	65.0	67.8	73.8	38	120	379	1,199	3,793	11,994
16		Mission Gorge Road to Prospect Avenue	71.5	65.4	68.4	73.9	39	123	388	1,227	3,881	12,274
17	Woodside Avenue	Magnolia Avenue to SR-67 Eastbound Ramps	72.0	65.2	68.0	74.1	41	129	406	1,285	4,064	12,852

FHWA RD-77-108

Traffic Noise Prediction Model

Data Input Sheet

Project Name : Santee Auto Center Project
Project Number : 9999
Modeled Condition : Existing + Cumulative

Surface Refelction: CNEL
Assessment Metric: Hard
Peak ratio to ADT: 10.0
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	Mission Gorge Road	Carlton Hills Boulevard to Cuyamaca Street	42,010	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
2		Cuyamaca Street to Cottonwood Avenue	30,020	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
3		Cottonwood Avenue to Edgemoor Drive	27,910	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
4		Edgemoor Drive to Magnolia Avenue	27,700	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
5	Mast Boulevard	Carlton Hills Boulevard to Cuyamaca Street	22,470	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
6		Cuyamaca Street to Magnolia Avenue	20,040	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
7		Magnolia Avenue to Los Ranchitos	9,210	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
8	Carlton Hills Boulevard	Mast Boulevard to Carlton Oaks Drive	11,560	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
9		Carlton Oaks Drive to Mission Gorge Road	27,340	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
10	Cuyamaca Street	El Nopal to Mast Boulevard	10,800	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
11		Mast Boulevard to Mission Gorge Road	29,710	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
12		Mission Gorge Road to SR-52 Ramps	43,400	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
13		SR-52 Ramps to Prospect Avenue	30,400	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
14	Magnolia Avenue	El Nopal to Mast Boulevard	15,260	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
15		Mast Boulevard to Mission Gorge Road	28,100	45	50	95.00	3.00	2.00	77.00	10.00	13.00	
16		Mission Gorge Road to Prospect Avenue	37,710	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
17	Woodside Avenue	Magnolia Avenue to SR-67 Eastbound Ramps	28,880	45	50	95.00	3.00	2.00	77.00	10.00	13.00	

FHWA RD-77-108

Traffic Noise Prediction Model

Predicted Noise Levels

Project Name : Santee Auto Center Project
Project Number : 9999
Modeled Condition : Existing + Cumulative
Assessment Metric: Hard

			Noise Levels, dBA Hard					Distance to Traffic Noise Level Contours, Feet				
Segment	Roadway	Segment	Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	Mission Gorge Road	Carlton Hills Boulevard to Cuyamaca Street	70.6	65.3	68.7	73.5	35	112	354	1,119	3,540	11,194
2		Cuyamaca Street to Cottonwood Avenue	70.8	64.7	67.8	73.2	33	104	330	1,045	3,303	10,446
3		Cottonwood Avenue to Edgemoor Drive	70.5	64.4	67.5	72.9	31	97	308	975	3,083	9,749
4		Edgemoor Drive to Magnolia Avenue	70.5	64.4	67.4	72.9	31	97	308	975	3,083	9,749
5	Mast Boulevard	Carlton Hills Boulevard to Cuyamaca Street	69.6	63.5	66.5	72.0	25	79	251	792	2,506	7,924
6		Cuyamaca Street to Magnolia Avenue	69.1	63.0	66.0	71.5	22	71	223	706	2,233	7,063
7		Magnolia Avenue to Los Ranchitos	64.0	58.7	62.1	66.9	8	24	77	245	774	2,449
8	Carlton Hills Boulevard	Mast Boulevard to Carlton Oaks Drive	65.0	59.7	63.1	67.9	10	31	97	308	975	3,083
9		Carlton Oaks Drive to Mission Gorge Road	68.7	63.4	66.9	71.6	23	72	229	723	2,285	7,227
10	Cuyamaca Street	El Nopal to Mast Boulevard	64.7	59.4	62.8	67.6	9	29	91	288	910	2,877
11		Mast Boulevard to Mission Gorge Road	69.1	63.8	67.2	72.0	25	79	251	792	2,506	7,924
12		Mission Gorge Road to SR-52 Ramps	70.7	65.4	68.9	73.6	36	115	362	1,145	3,622	11,454
13		SR-52 Ramps to Prospect Avenue	69.2	63.9	67.3	72.1	26	81	256	811	2,564	8,109
14	Magnolia Avenue	El Nopal to Mast Boulevard	67.9	61.8	64.9	70.3	17	54	169	536	1,694	5,358
15		Mast Boulevard to Mission Gorge Road	72.0	65.2	68.0	74.1	41	129	406	1,285	4,064	12,852
16		Mission Gorge Road to Prospect Avenue	71.8	65.7	68.8	74.2	42	132	416	1,315	4,159	13,151
17	Woodside Avenue	Magnolia Avenue to SR-67 Eastbound Ramps	72.1	65.4	68.1	74.2	42	132	416	1,315	4,159	13,151

FHWA RD-77-108

Traffic Noise Prediction Model

Data Input Sheet

Project Name : Santee Auto Center Project
Project Number : 9999
Modeled Condition : Existing + Cumulative + Project

Surface Refelction: CNEL
Assessment Metric: Hard
Peak ratio to ADT: 10.0
Traffic Desc. (Peak or ADT) : ADT

Segment	Roadway	Segment	Traffic Vol.	Speed (Mph)	Distance to CL	% Autos	%MT	% HT	Day %	Eve %	Night %	K-Factor
1	Mission Gorge Road	Carlton Hills Boulevard to Cuyamaca Street	42,340	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
2		Cuyamaca Street to Cottonwood Avenue	32,260	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
3		Cottonwood Avenue to Edgemoor Drive	30,150	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
4		Edgemoor Drive to Magnolia Avenue	28,700	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
5	Mast Boulevard	Carlton Hills Boulevard to Cuyamaca Street	22,600	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
6		Cuyamaca Street to Magnolia Avenue	20,070	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
7		Magnolia Avenue to Los Ranchitos	9,380	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
8	Carlton Hills Boulevard	Mast Boulevard to Carlton Oaks Drive	11,790	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
9		Carlton Oaks Drive to Mission Gorge Road	27,670	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
10	Cuyamaca Street	El Nopal to Mast Boulevard	10,970	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
11		Mast Boulevard to Mission Gorge Road	30,040	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
12		Mission Gorge Road to SR-52 Ramps	44,970	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
13		SR-52 Ramps to Prospect Avenue	30,830	35	50	95.00	3.00	2.00	77.00	10.00	13.00	
14	Magnolia Avenue	El Nopal to Mast Boulevard	15,430	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
15		Mast Boulevard to Mission Gorge Road	28,430	45	50	95.00	3.00	2.00	77.00	10.00	13.00	
16		Mission Gorge Road to Prospect Avenue	38,040	40	50	95.00	3.00	2.00	77.00	10.00	13.00	
17	Woodside Avenue	Magnolia Avenue to SR-67 Eastbound Ramps	29,210	45	50	95.00	3.00	2.00	77.00	10.00	13.00	

FHWA RD-77-108

Traffic Noise Prediction Model

Predicted Noise Levels

Project Name : Santee Auto Center Project
Project Number : 9999
Modeled Condition : Existing + Cumulative + Project
Assessment Metric: Hard

			Noise Levels, dBA Hard					Distance to Traffic Noise Level Contours, Feet				
Segment	Roadway	Segment	Auto	MT	HT	Total	75 dB	70 dB	65 dB	60 dB	55 dB	50 dB
1	Mission Gorge Road	Carlton Hills Boulevard to Cuyamaca Street	70.6	65.3	68.8	73.5	35	112	354	1,119	3,540	11,194
2		Cuyamaca Street to Cottonwood Avenue	71.1	65.0	68.1	73.5	35	112	354	1,119	3,540	11,194
3		Cottonwood Avenue to Edgemoor Drive	70.8	64.7	67.8	73.2	33	104	330	1,045	3,303	10,446
4		Edgemoor Drive to Magnolia Avenue	70.6	64.5	67.6	73.0	32	100	315	998	3,155	9,976
5	Mast Boulevard	Carlton Hills Boulevard to Cuyamaca Street	69.6	63.5	66.6	72.0	25	79	251	792	2,506	7,924
6		Cuyamaca Street to Magnolia Avenue	69.1	63.0	66.0	71.5	22	71	223	706	2,233	7,063
7		Magnolia Avenue to Los Ranchitos	64.1	58.8	62.2	67.0	8	25	79	251	792	2,506
8	Carlton Hills Boulevard	Mast Boulevard to Carlton Oaks Drive	65.1	59.8	63.2	68.0	10	32	100	315	998	3,155
9		Carlton Oaks Drive to Mission Gorge Road	68.8	63.5	66.9	71.7	23	74	234	740	2,339	7,396
10	Cuyamaca Street	El Nopal to Mast Boulevard	64.8	59.5	62.9	67.7	9	29	93	294	931	2,944
11		Mast Boulevard to Mission Gorge Road	69.1	63.8	67.3	72.0	25	79	251	792	2,506	7,924
12		Mission Gorge Road to SR-52 Ramps	70.9	65.6	69.0	73.8	38	120	379	1,199	3,793	11,994
13		SR-52 Ramps to Prospect Avenue	69.3	63.9	67.4	72.1	26	81	256	811	2,564	8,109
14	Magnolia Avenue	El Nopal to Mast Boulevard	67.9	61.8	64.9	70.3	17	54	169	536	1,694	5,358
15		Mast Boulevard to Mission Gorge Road	72.0	65.3	68.0	74.1	41	129	406	1,285	4,064	12,852
16		Mission Gorge Road to Prospect Avenue	71.8	65.8	68.8	74.3	43	135	426	1,346	4,256	13,458
17	Woodside Avenue	Magnolia Avenue to SR-67 Eastbound Ramps	72.2	65.4	68.1	74.2	42	132	416	1,315	4,159	13,151