4665 Lampson Avenue

NOISE IMPACT ANALYSIS

CITY OF LOS ALAMITOS

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
AELUP	Airport Environs Land Use Plan
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
Leq	Equivalent continuous (average) sound level
Lmax	Maximum level measured over the time interval
Lmin	Minimum level measured over the time interval
MM	Mitigation Measure
mph	Miles per hour
OCTA	Orange County Transportation Agency
PPV	Peak Particle Velocity
Project	4665 Lampson Avenue
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to evaluate potential noise associated with proposed development at 4665 Lampson Avenue ("Project") in the City of Los Alamitos. The Project is proposed to include the development of 55 single family detached residential dwelling units (cluster homes), 114 multifamily (low-rise) residential dwelling units, and 77 affordable apartment dwelling units (total of 246 dwelling units) and demolition of the existing 88,000 square foot commercial office building. This study has been prepared to evaluate the Project's potential noise impacts in light of the thresholds of significance identified in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1)

ON-SITE TRAFFIC NOISE ANALYSIS

An on-site exterior and interior noise impact analysis has been completed to determine the traffic-related noise levels and to identify potential necessary abatement measures for the proposed Project. It is expected that the primary source of traffic-related noise impacts to the Project site will be from Lampson Avenue.

EXTERIOR TRAFFIC NOISE ANALYSIS

The on-site traffic noise level impacts indicate that noise levels at the Project buildings adjacent to Lampson Avenue would experience exterior noise levels ranging from 64.6 to 72.8 dBA CNEL. Therefore, to reduce noise levels to 65 dBA CNEL or less in compliance with the City of Los Alamitos exterior noise level noise and land use compatibility policies, the Project would include Noise 1 in the Project design and construct a seven (7) foot-high noise barrier along Lampson Avenue, shown in Exhibit ES-A. With the barrier, exterior noise levels will range from 58.3 to 63.8 dBA CNEL at backyards of residential units and common outdoor activity areas of multi-family residential units. This noise analysis shows that with the proposed noise barrier the Project will satisfy the City of Los Alamitos 65 dBA CNEL normally acceptable exterior noise level standards for residential land uses. The identified noise barrier heights represent the minimum wall and/or berm combination height required to satisfy the City of Los Alamitos exterior noise level standards.

Noise 1 The Project will construct a 7-foot-high noise barrier along Lampson Avenue, as shown in Exhibit ES-A. The noise control barrier will be constructed so that the top of each wall and /or berm combination extends to the planned height above the pad elevation of the lot it is shielding. When the roadway or terrain is elevated above the pad elevation, the barrier shall extend to the recommended height above the highest point between the residential home and the roadway. The barrier shall be built with a material surface weight of at least 4 pounds per square foot, with no decorative cutouts, perforations, or line-of-sight openings between residences and Lampson Avenue. (2) The noise barrier shall be constructed using the following materials:

EXHIBIT ES-A: NOISE CONTROL MEASURE SUMMARY

- masonry block;
- stucco veneer over wood framing (or foam core), or 1-inch-thick tongue and groove wood of sufficient weight per square foot;
- glass (1/4-inch-thick),
- material with sufficient weight per square foot capable of providing a minimum transmission loss of 20 dBA;
- earthen berm; or,
- any combination of these construction materials.

INTERIOR TRAFFIC NOISE ABATEMENT

Typical building construction will provide a Noise Reduction (NR) of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed." (3) (4) The Project will provide mechanical ventilation (e.g. air conditioning) for all units which would allow a windows-closed condition. Based on predicted exterior noise levels, to satisfy the State of California and the City of Los Alamitos 45 dBA CNEL interior noise level criteria, first-floor units are being designed to meet a Noise Reduction (NR) of 20.3 dBA at first floors and 26.3 dBA at second floors for units adjacent to Lampson Avenue. Therefore, the Project will provide second floor units with windows that have an STC rating of 29. The Project includes the following Project design feature:

Noise: 2 To comply with the State of California and City of Los Alamitos 45 dBA CNEL interior noise standards for residential land use the Project will provide the following or equivalent noise abatement measures on building plans:

- Windows & Glass Doors: At a minimum the Project will provide windows and glass doors that are well-fitted, well-weather-stripped assemblies with minimum sound transmission class (STC) ratings of 27. Additionally, all second floor facades adjacent to Lampson Avenue will be provided windows and glass doors that are well-fitted, well-weather-stripped assemblies with minimum sound transmission class (STC) ratings of 29.
- Doors (Non-Glass): All exterior doors shall be well weather-stripped and have. Well-sealed perimeter gaps around the doors are essential to achieve the optimal STC rating. (5)
- Walls: At any penetrations of exterior walls by pipes, ducts, or conduits, the space between the wall and pipes, ducts, or conduits shall be caulked or filled with mortar to form an airtight seal.
- Roof: Roof sheathing of wood construction shall be per manufacturer's specification or caulked plywood of at least one-half inch thick. Ceilings shall be per manufacturer's specification or well-sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space.
- Ventilation: Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use and still receive circulated air. A forced air circulation system (e.g. air conditioning) or active ventilation system

(e.g. fresh air supply) shall be provided which satisfies the requirements of the Uniform Building Code.

OFF-SITE TRAFFIC NOISE ANALYSIS

Traffic generated by the operation of the proposed Project will influence the traffic noise levels in surrounding off-site areas. To quantify the traffic noise increases on the surrounding off-site areas, the changes in traffic noise levels on sixteen roadway segments surrounding the Project site were calculated based on the change in the average daily traffic (ADT) volumes. The traffic noise levels provided in this analysis are based on the traffic forecasts found in *4665 Lampson Avenue Traffic Impact Analysis* prepared by Urban Crossroads, Inc. (6) To assess the off-site noise level impacts associated with the proposed Project, noise level contour boundaries were developed for Existing 2023, Opening Year 2026 (OY 2026), and General Plan Buildout 2045(GBPO 2045) without and with Project traffic conditions. Land uses along roadway segments analyzed would experience Project related traffic noise level increases of up to 1.0 dBA CNEL. Therefore, the analysis shows that the Project-related traffic noise level increases under all scenarios would be *less than significant*.

OPERATIONAL NOISE ANALYSIS

The Project would include specific type of operational noise attributable to the Project, including roof-top and ground-mounted air conditioning units, parking lot vehicle movements, outdoor activity, and trash enclosure activities. Project operational noise levels during the daytime hours at off-site receiver locations are expected to range from 20.4 to 46.9 dBA $L_{eq.}$ Project operational noise levels during the nighttime hours at off-site receiver locations are expected to range from 16.8 to 43.7 dBA L_{eq}. Project operational noise levels will satisfy Section 17.20.050 of the City of Los Alamitos Municipal Code daytime and nighttime noise standards of 55 dBA and 50 dBA L_{eq}, respectively, at all residential receivers. Therefore, potential operational noise impacts for the residential land use are anticipated to result in *less than significant* impacts.

CONSTRUCTION NOISE ANALYSIS

Construction noise levels are expected to create temporary and intermittent high-level noise conditions at receivers surrounding the Project site when certain activities occur at the closest point to the nearby receiver locations from the edge of primary Project construction activity. Using sample reference noise levels to represent the construction activities at the Project site, this analysis estimates the Project-related construction noise levels at nearby sensitive receiver locations. The results of the analysis show the highest construction noise levels at the potentially impacted receiver locations are expected to approach 63.2 dBA L_{eq}.

The Project related construction equipment noise levels are anticipated to satisfy the FTA construction noise level standards of 80 dBA L_{eq} for mobile equipment during typical Project construction activities at all receiver locations. Additionally, construction activities are planned to typically occur between 7:00 a.m. and 6:00 p.m. and would comply with the City of Los Alamitos limitation on allowable hours of construction per Section 17.20.020. Therefore, based

on the results of this analysis, all nearby sensitive receiver locations will experience *less than significant* impacts due to Project construction noise levels.

CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration (FTA). At the nearest receivers Project construction vibration velocity levels are estimated to range from less than 0.00 to 0.02 in/sec PPV. Based on maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec), the typical Project construction vibration levels will not exceed the City of Los Alamitos thresholds at properties located adjacent to the Project site. Therefore, vibration impacts due to Project construction activities would be *less than significant*.

AIRCRAFT NOISE ABATEMENT

Based on a review of noise level contours for the Joint Forces Training Base (JFTB) Los Alamitos, a portion of the proposed residential uses would be located within the conditionally consistent 60-65 dBA noise contour under projected conditions. As discussed under the on-site traffic noise traffic noise analysis, typical modern residential construction can achieve a noise level reduction of 25 dBA with windows closed. Thus, with the Project design feature Noise-1, a windows closed condition is evaluated, which indicates maximum interior noise levels would range from 35 to 40 dBA CNEL from aircraft noise exposure. As discussed, in the following analysis, exposure of exterior use areas to noise levels in excess of 70 dBA CNEL would be considered significant, and exposure of residential land uses to noise levels in excess of 65 dBA CNEL would be significant unless noise levels in interior habitable rooms are reduced to 45 dBA CNEL. Therefore, the Project would not expose people residing or working in the project area to excessive interior noise levels from airport or aircraft operations, and impacts would be *less than significant*.

SUMMARY OF SIGNIFICANCE FINDINGS

The results of 4665 Lampson Avenue Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (7). Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

TABLE ES-1: SUMMARY OF SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings		
		Unmitigated	**Mitigated**	**Mitigated Measure**
On-Site Traffic Noise	7	*Less Than Significant*[1]	-	-
Off-Site Traffic Noise	8	*Less Than Significant*	-	-
Operational Noise	10	*Less Than Significant*	-	-
Construction Noise	11	*Less Than Significant*	-	-
Construction Vibration		*Less Than Significant*	-	-
On-Site Aircraft Noise	12	*Less Than Significant*	-	-

[1] Less than significant with Project Design Features (Noise -1 and Noise -2)

1 INTRODUCTION

This noise analysis has been completed to evaluate the noise impacts associated with the development of the proposed 4665 Lampson Avenue project ("Project"). This noise study describes the Project, provides information regarding noise and vibration fundamentals, outlines the local regulatory setting, provides the study methods and procedures for performing noise analysis, evaluates potential noise impacts from the project, and identifies mitigation measures to reduce impacts, as necessary.

1.1 SITE LOCATION

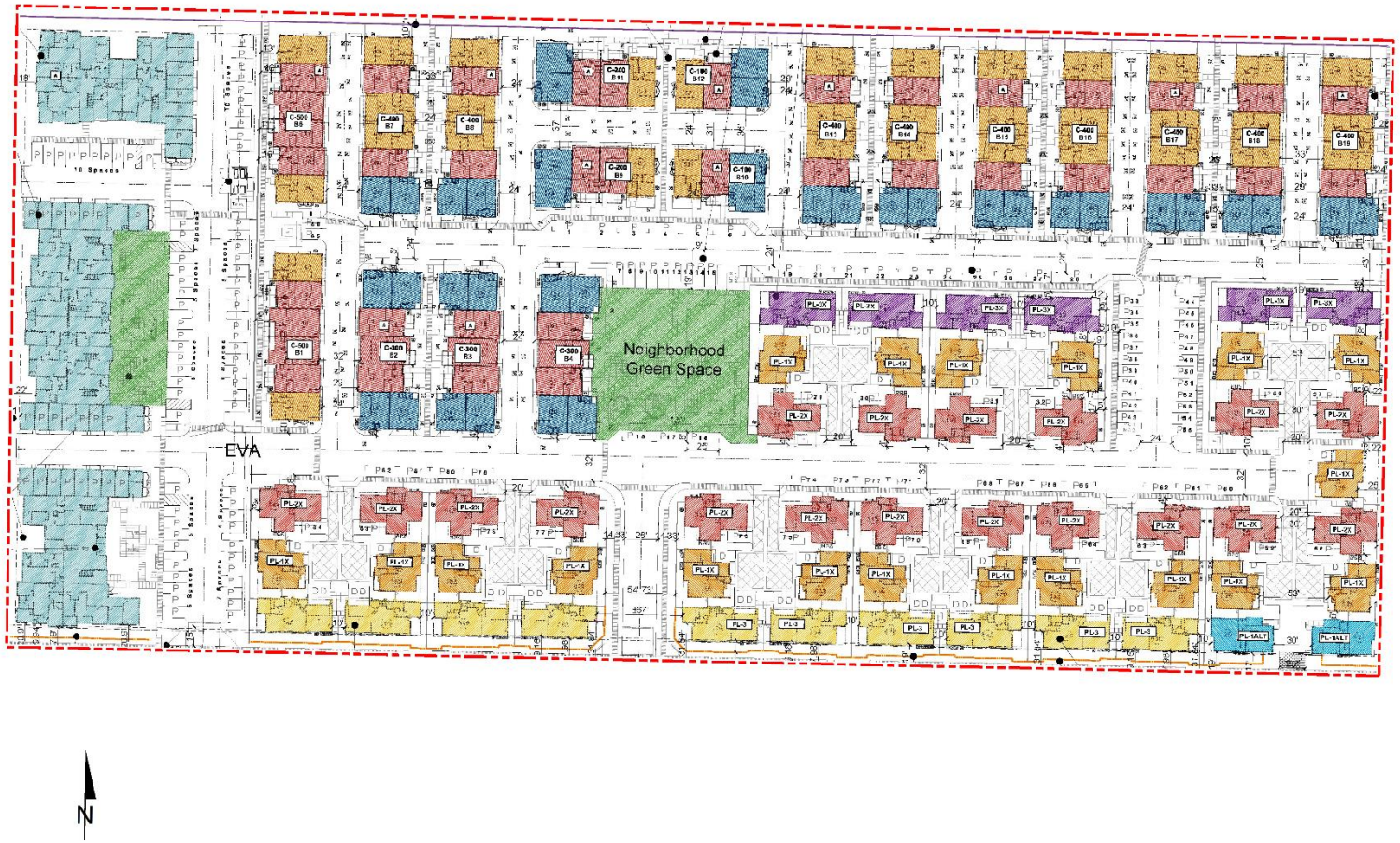
The proposed Project is located at 4665 Lampson Avenue in the City of Los Alamitos. The Project's location in relation to the surrounding area is shown on Exhibit 1-A. The surrounding land use designations are Residential to the south, JFTB Los Alamitos to the north, the Navy Golf Course to the east, and Arbor Park (Community Facilities) to the west. Interstate 405 (I-405) is located approximately 0.48 miles south of the Project site.

1.2 PROJECT DESCRIPTION

The Project consists of the development of 55 single family detached residential dwelling units (cluster homes), 114 multifamily (low-rise) residential dwelling units, and 77 affordable apartment dwelling units (total of 246 dwelling units). A preliminary site plan for the proposed Project is shown on Exhibit 1-B. The site is currently occupied by a two-story, 88,000 square foot commercial office building and parking lot. Access to the Project site will be accommodated to Lampson Avenue via two proposed driveways. The Project is anticipated to generate an increase of 1,658 two-way trip-ends per day with 112 AM peak hour trips and 147 PM peak hour trips. The Project is anticipated to have an opening year of 2026.

EXHIBIT 1-A: LOCATION MAP

EXHIBIT 1-B: CONCEPTUAL SITE PLAN



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2 FUNDAMENTALS

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

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

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

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Human perception of noise has no simple correlation with acoustical energy. The perception of noise is not linear in terms of dBA or in terms of acoustical energy. Two equivalent noise sources result in a 3 dBA increase. However, it is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease; that a change of 5 dBA is readily perceptible; and that an increase (decrease) of 10 dBA

sounds twice (half) as loud (Caltrans 2009). The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. (8) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

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

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors L_{50}, L_{25}, L_8 and L_2, are commonly used. The percentile noise descriptors are the noise levels equaled or exceeded during 50 percent, 25 percent, 8 percent, and 2 percent of a stated time. Sound levels associated with the L_2 and L_8 typically describe transient or short-term events, while levels associated with the L_{50} describe the steady state (or median) noise conditions. While the L_{50} describes the median noise levels occurring 50 percent of the time, the L_{eq} accounts for the total energy (average) observed for the entire hour. Therefore, the L_{eq} noise descriptor is generally 1-2 dBA higher than the L_{50} noise level.

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

Sound levels used for compliance modeling, sound level limitations on equipment, and product labeling use another descriptor, are known as the sound power level (Lw). Sound power is the rate at which sound energy is emitted from a source per unit time. Knowing the sound power level of a device allows for the objective comparison of the sound output of different devices, without any knowledge of the environment in which they were tested or the distance at which measurements were taken. This makes sound power levels ideal for verifying compliance with property line noise level limits.

2.3 SOUND PROPAGATION

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

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (9)

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (3)

2.3.3 ATMOSPHERIC EFFECTS

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (9)

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to

completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure. (3)

2.4 NOISE CONTROL

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

2.5 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (3)

2.6 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (10)

2.7 VIBRATION

Per the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual*, (7) vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

Additionally, in contrast to airborne noise, ground-borne vibration outdoors is not a common environmental problem and annoyance from ground-borne vibration is almost exclusively an indoor phenomenon. (7) Therefore, the effects of vibrations should only be evaluated at a structure and the effects of the building structure on the vibration should be considered. Wood-

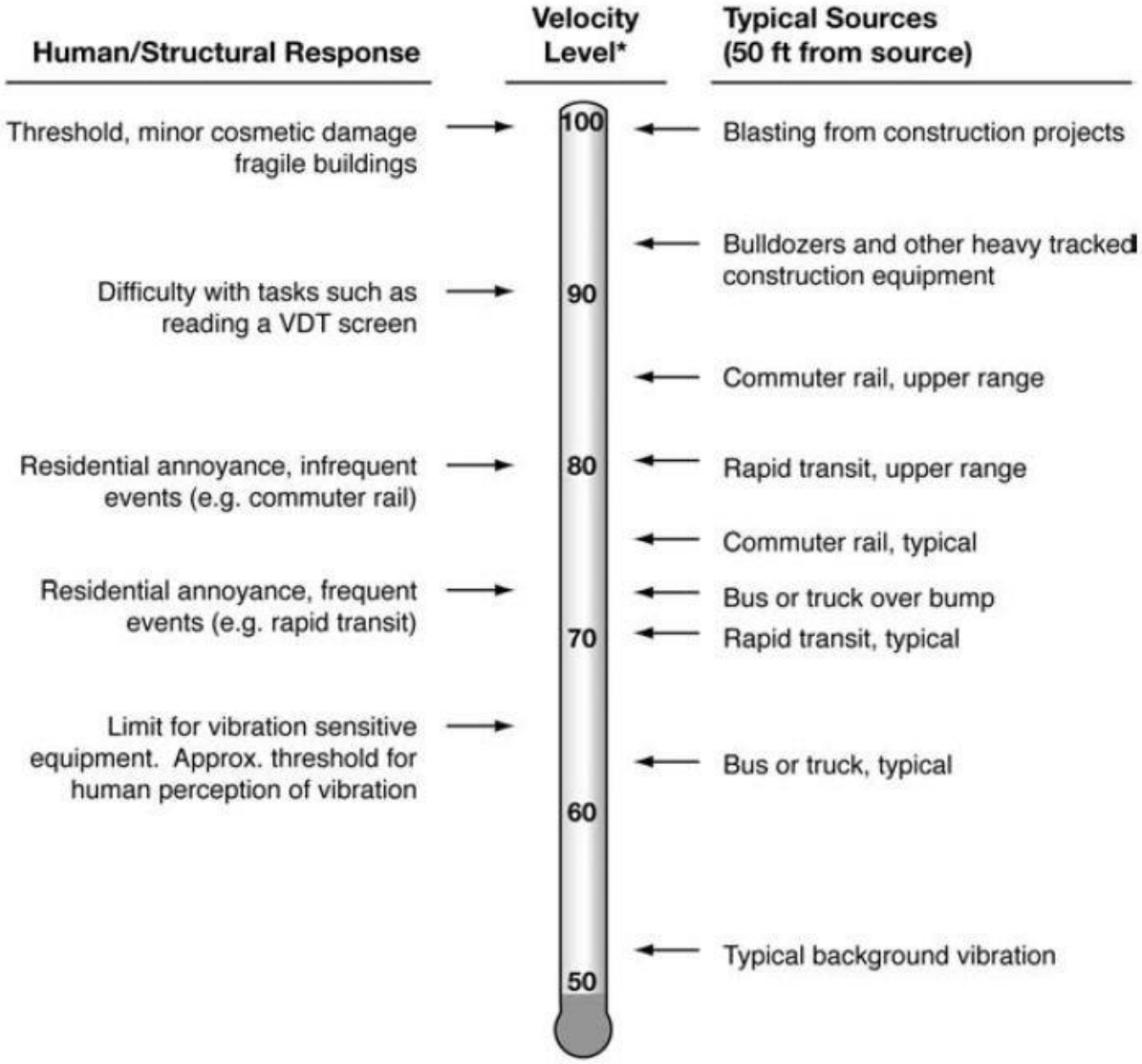
frame buildings, such as typical residential structures, are more easily excited by ground vibration than heavier buildings. In contrast, large masonry buildings with spread footings have a low response to ground vibration. (7) In general, the heavier a building is, the lower the response will be to the incident vibration energy. However, all structurers reduce vibration levels due to the coupling of the building to the soil.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. (7) The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. (7) However, the RMS amplitude and PPV are related mathematically, and the RMS amplitude of equipment is typically calculated from the PPV reference level. The RMS amplitude is approximately 70% of the PPV (12). Thus, thus either can be used on the description of vibration impacts.

Vibration decibel notation (VdB) is another vibration notation developed and used by the FTA in their guidance manual to describe vibration levels and provide a background of common vibration levels and set vibration limits. (7) Decibel notation (VdB) serves to reduce the range of numbers used to describe vibration levels and is used in this report to describe vibration levels.

As stated in the FTA guidance manual, the background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. (7) Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-B illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-B: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



** RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

Source: Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment.

3 REGULATORY SETTING

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

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes an element that addresses noise issues per guidelines adopted by the Governor's Office of Planning and Research. (13) The purpose of this element is to ensure a local planning area *limits the exposure of the community to excessive noise levels*. State law allows jurisdictions to organize their general plan in any format, including by consolidating elements. Here, noise issues are addressed in the City of Los Alamitos' Public Facilities and Safety Element of its General Plan. In addition, the California Environmental Quality Act (CEQA) requires that reasonably foreseeable environmental effects of a project be analyzed, including environmental noise impacts.

3.2 STATE OF CALIFORNIA BUILDING CODE

The State of California's Green Building Standards Code contains mandatory measures for non-residential building construction in Section 5.507 on Environmental Comfort. (14) These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when non-residential structures are developed in areas where a general plan or airport plan provide contours that show exterior noise levels exceed 65 dBA CNEL, such as within a noise level contour of an airport, freeway, or railroad; or if contours are unavailable, buildings exposed to a noise level of 65 dBA $L_{eq\text{-}1\text{-}hr}$ during any hour of operation; shall be constructed to provide an interior noise level environment attributable to exterior sources that does not exceed an hourly equivalent level of 50 dBA L_{eq} in occupied areas during any hour of operation.

3.3 CITY OF LOS ALAMITOS NOISE STANDARDS

The General Plan is a tool for managing noise by planning for and maintaining compatibility between sensitive land uses and noise sources. (15) The City of Los Alamitos has identified two separate types of noise sources: (1) transportation, and (2) stationary. To control transportation related noise sources such as arterial roads, freeways, airports, and railroads, the City of Los Alamitos has established guidelines for acceptable community noise levels in the Public Facilities

and Safety Element of the General Plan. Noise from stationary sources is regulated through specific standards in Chapter 17.20 of the Los Alamitos Municipal Code. and Division 6 of the Orange County Municipal Code (Rossmoor). The Public Facilities and Safety Element of the General Plan includes the following Noise Hazards goal and policies:

- Goal 4: An environment in which minimized noise contributes to the public's health, safety, and welfare.
- Policy 4.1 **Land use compatibility**. Approve development and require mitigation measures to ensure existing and future land use compatibility as shown in the City's Noise Ordinance, the Land Use and Noise Compatibility Matrix, the State Interior and Exterior Noise Standards, and the Airport Environs Land Use Plan for the JFTB.
- Policy 4.2 **New residential**. When new residential development is proposed adjacent to land designated for industrial or commercial uses, require the proposed development to assess potential noise impacts and fund feasible noise-related mitigation measures.
- Policy 4.3 **Control sound at the source**. Prioritize noise mitigation measures to control sound at the source over buffers, soundwalls, and other perimeter measures.
- Policy 4.4 **Noise impacts**. Minimize or eliminate persistent, periodic, or impulsive noise impacts of business operations.
- Policy 4.6 **Aircraft noise**. Work with the JFTB and Long Beach Airport to minimize the noise impact of small aircraft and helicopters on residential neighborhoods.

3.3.1 LAND USE COMPATIBILITY

The noise criteria identified in the City of Los Alamitos Public Facilities and Safety Element (Table 4) are guidelines to evaluate the land use compatibility of transportation-related noise. The compatibility criteria, shown on Exhibit 3-A, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels.

The *Land Use and Noise Compatibility Matrix* describes categories of compatibility and not specific noise standards. The residential land uses of the Project are considered *clearly compatible* with unmitigated exterior noise levels of less than 60 dBA CNEL and *normally compatible* with unmitigated exterior noise levels approaching 70 dBA CNEL, *new construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.* For *normally incompatible* exterior noise levels, exceeding 70 dBA CNEL, *new construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements are made and needed noise insulation features must be included in the design.*

EXHIBIT 3-A: LAND USE AND NOISE COMPATIBILITY MATRIX

LAND USES	EXISTING NOISE LEVEL (dBA CNEL)						
Example Land Uses	**<**	**55**	**60**	**65**	**70**	**75**	**80>**
Amphitheater, concert hall, auditorium, meeting hall	B	B	C	C	D	D	D
Mobile home	A	A	B	C	C	D	D
Hospital, library, school, faith/religious uses	A	A	B	C	C	D	D
Hotel, motel, transient lodging	A	A	B	B	C	C	D
Single family, multifamily, faith/religious uses	A	A	B	B	C	D	D
Parks	A	A	A	B	C	D	D
Office building, research & development, professional office, city office building, and hotel	A	A	A	B	B	C	D
Amusement park, miniature golf, go-cart track, health club, equestrian center	A	A	A	B	B	D	D
Golf courses, nature centers, cemeteries, wildlife reserves, wildlife habitat	A	A	A	A	B	C	C
Commercial retail, bank, restaurant, movie theater	A	A	A	A	B	B	C
Automobile service station, auto dealer, manufacturing, warehousing, wholesale, utilities	A	A	A	A	B	B	B
Agriculture	A	A	A	A	A	A	A

Notes:

Community Noise Equivalent Level (CNEL). The energy-average of the A-weighted sound levels during a 24-hour period, with 5 dB added to the levels from 7:00 PM to 10:00 PM and 10 dB added from 10:00 PM to 7:00 AM.

Compatibility Zones. The following zones indicate the degree to which listed land uses are compatible with noise levels shown in the table.

Zone A. Clearly Compatible. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

Zone B. Normally Compatible. New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Zone C. Normally Incompatible. New construction or development should normally be discouraged. If new construction or development does proceed, a detailed analysis or noise reduction requirements must be made and needed noise insulation features must be included in the design.

Zone D. Clearly Incompatible. New construction or development should generally not be undertaken.

Source: City of Los Alamitos General Plan Public Facilities and Safety Element, Table 4.

3.3.2 CITY OF LOS ALAMITOS OPERATIONAL NOISE STANDARDS

To control transportation-related noise sources such as arterial roads, freeways, airports, and railroads, the City of Los Alamitos has established the standards provided in Table 4 of General Plan Public Facilities and Safety Element for compatible community noise levels.

To analyze noise impacts originating from a designated fixed location or private property such as the Project, stationary-source (operational) noise such as the expected roof-top and ground-mounted air conditioning units, parking lot vehicle movements, outdoor activity, and trash enclosure activities are typically evaluated against standards established under a City's Municipal Code. Table 3-1 summarizes the City of Los Alamitos Municipal Code, Section 17.20.050 exterior noise standards that may be received at nearby land use uses. The City of Los Alamitos noise ordinance is included in Appendix 3.1.

TABLE 3-1: LOS ALAMITOS MUNICIPAL CODE EXTERIOR NOISE STANDARDS

Noise District	Maximum Noise Level[1]	Time Period
1 (Residential) day	55 dB(A)	7:00 a.m. to 10:00 p.m.
1 (Residential) night	50 dB(A)	10:00 p.m. to 7:00 a.m.
2 (Professional and Institutional)	55 dB(A)	Anytime
3 (Commercial)	60 dB(A)	Anytime
4 (Industrial)	70 dB(A)	Anytime

Notes: The noise levels at the affected property shall not exceed:
-The noise standard for a cumulative period of more than 30 minutes in any hour; or
-The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour; or
-The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour; or
-The noise standard plus 15 dBA for a cumulative period of more than one minute in any hour; or
-The noise standard plus 20 dBA for any period of time.
[1] Los Alamitos Municipal Code Chapter 17.20.050, Noise. (Appendix 3.1).

3.4 CONSTRUCTION NOISE STANDARDS

To control noise impacts associated with the construction of the Project, noise from construction activities are typically limited to the hours of operation established under a City's Municipal Code. The City of Los Alamitos Municipal Code, Section 17.20.020, states that construction activities are exempted from the noise ordinance if it occurs between the hours of 7:00 a.m. to 8:00 p.m. on weekdays and on Saturdays. Construction is not allowed at any time on Sundays or Federal holidays. (16) Neither the City's General Plan nor Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise

environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use. (7 p. 179)

3.5 CONSTRUCTION VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. Occasionally large bulldozers and loaded trucks can cause perceptible vibration levels at close proximity.

To analyze vibration impacts originating from the operation and construction of 4665 Lampson Avenue, vibration-generating activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the City of Los Alamitos does not identify specific vibration level limits. Therefore, for analysis purposes, the Caltrans *Transportation and Construction Vibration Guidance Manual*, (12 p. 38) Table 19, vibration damage are used in this noise study to assess potential temporary construction-related impacts at adjacent building locations.

The construction vibration damage potential criteria include consideration of the building conditions. (8 p. 182) Table 3-2 describes the maximum acceptable transient and continuous vibration building damage potential levels by structure type and condition. The existing buildings adjacent to the Project site can best be described as "older residential structures" with a maximum acceptable continuous vibration threshold of 0.3 PPV (in/sec).

TABLE 3-2: BUILDING DAMAGE VIBRATION CRITERIA

Structure and Condition	Maximum Transient Vibration Levels PPV (in/sec)	Maximum Continuous Vibration Levels PPV (in/sec)
Extremely fragile historic buildings	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Tables 19, p. 38.

3.6 AIRPORT LAND USE COMPATIBILITY

The JFTB Los Alamitos is located adjacent to, and northwest of the Project site. The Project site is located within the Airport Environs Land Use Plan Airport Planning Area (17).

Exhibit 3-B shows the Project site in relation to the airport's noise level contour boundaries, as provided by the *Airport Environs Land Use Plan (AELUP) for Joint Forces Training Base Los Alamitos* (17). The AELUP noise level contours are based on a 1987 U.S. Army Environmental Hygiene Agency (USAEHA) assessment that was published in 1994 as part of the *Air Installation Compatible Use Zone (AICUZ) Study, Armed Forces Reserve Center Los Alamitos Airfield* (18). The 1994 ACUIZ noise level contours were based on 55,000 aircraft operations. The noise level contours shown on Exhibit 3-B are a modified version of the 1994 ACUIZ Noise Level Contours published by the ALUC in 1995. Based on the AELUP noise level contours, shown on Exhibit 3-B, the majority of the Project site sits within the 60 dBA CNEL but outside the 65 dBA CNEL noise level contour boundary of the JFTB Los Alamitos.

Exhibit 3-C shows the Project site in relation to the airport's noise level contour boundaries, as more recently published in 2020 by the US Army Public Health Center in the *Noise Assessment for Los Alamitos Airfield, Joint Forces Training Base Los Alamitos* (19). The more recent 2020 noise level contours are based on 46,235 aircraft operations. As shown on Exhibit 3-C, a portion of the northwestern portion of the Project site is within the 60 dBA CNEL noise level contour boundary of the JFTB Los Alamitos.

This analysis relies on the more recent 2020 noise level contours developed by the US Army Public Health Center. The reliance on this more recent information is justified because the noise level contours included in the AELUP were originally established based on data collected almost four decades ago in 1987 as part of an earlier US Army USAEHA assessment published in 1994. The 2020 noise level contours reflect the most current data and analysis as to existing and projected noise environments at the Project site. In addition, the 2020 noise level contours were generated based on current background information using the Department of Defense aircraft noise model NoiseMap, which is a suite of computer programs and components developed by the US Air Force to predict noise exposure near an airfield/runway due to aircraft flight, maintenance, and ground run-up operations. The 1994 report was based on information available at that time related to airfield and heliport planning criteria, air installation compatible use zone study documents from other military installations, environmental noise assessments for the Los Alamitos Armed Forces Reserve Center, then-existing and proposed airfield operations, and other information. By comparison, the 2020 noise level contours are more current, reflecting more recent existing and proposed airfield operations as well as other information.

The noise criteria identified in the *Airport Environs Land Use Plan (AELUP) for Joint Forces Training Base Los Alamitos* (17) are guidelines to evaluate the land use compatibility of aircraft-related noise. The compatibility criteria, shown on Exhibit 3-D, provides a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. Residential land uses located outside the 60 dBA contour are considered normally consistent, residential land uses located within the 60 dBA contour are considered conditionally consistent and are required to

ensure that the interior CNEL does not exceed 45 dBA CNEL. Residential land uses located within the 65 dBA contour are considered normally inconsistent.

This is consistent with the City of Los Alamitos noise compatibility standards which states residential land uses exposed to noise levels ranging from 60-65 dBA CNEL are considered "Normally Compatible", and requires new construction or development to conduct a detailed analysis of the noise reduction requirements to verify any needed noise insulation features are included in the design. The City General Plan states, "conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice." Relative to noise from JFTB Los Alamitos, the General Plan states, "homes within the moderate noise impact zone (between 60 and 65 dBA CNEL) could be seriously disturbed by single noise events, but are still considered compatible by the AELUP."

EXHIBIT 3-B: AELUP AIRPORT NOISE LEVEL CONTOUR BOUNDARIES

EXHIBIT 3-C: APHC 2020 AIRPORT NOISE LEVEL CONTOUR BOUNDARIES

EXHIBIT 3-D: LIMITATIONS ON LAND USE DUE TO AIRCRAFT NOISE

TABLE 1

AIRPORT LAND USE COMMISSION FOR ORANGE COUNTY
AIRPORT ENVIRONS LAND USE PLAN
LIMITATIONS ON LAND USE DUE TO NOISE
(Applicable to Aircraft Noise Sources)

LAND USE CATEGORY	COMMUNITY NOISE EQUIVALENT LEVEL dB						
	55	60	65	70	75	80	
Residential (all types): Single and Multi-Family Residences							
Community Facilities: Churches, Libraries, Schools, Preschools, Day-Care Centers, Hospitals, Nursing/Convalescent Homes, & Other noise sensitive uses							
Commercial: Retail, Office							
Industrial:							

NORMALLY CONSISTENT

Conventional construction methods used. No special noise reduction requirements.

CONDITIONALLY CONSISTENT

Must use sound attenuation as required by the California Noise Insulation Standards, Title 25, California Code of Regulations. Residential use sound attenuation required to ensure that the interior CNEL does not exceed 45 dB. Commercial and industrial structures shall be sound attenuated to meet Noise Impact Zone "1" criteria (refer to Section 3.2.3).

NORMALLY INCONSISTENT

All residential units are inconsistent unless sound attenuated to ensure that the interior CNEL does not exceed 45 dB, and that all units are indoor oriented so as to preclude noise impingement on outdoor living areas.

4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

B. Generation of excessive ground-borne vibration or ground-borne noise levels?

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

While the City of Los Alamitos General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts, they do not define the levels at which increases are considered substantial for use under Threshold A. Similarly, the City of Los Alamitos General Plan Guidelines do not define the vibration levels at which temporary or constant vibrations are considered substantial for use under Threshold B. CEQA Appendix G Threshold C applies to nearby public and private airports, if any, and the Project's land use compatibility. Table 4-1 shows the significance criteria summary matrix.

4.1 NOISE LEVEL INCREASES (THRESHOLD A)

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing baseline ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant environmental impact. This approach *recognizes that there is no single noise increase that renders the noise impact significant.* (20) This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment.

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) (21) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (L_{eq}).

The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in baseline ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project (baseline) noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or *readily perceptible*, 3 dBA or *barely perceptible*, and 1.5 dBA depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the Federal Highway Administration (3 p. 9) and Caltrans (22 p. 2_48).

4.2 VIBRATION (THRESHOLD B)

As described in Section 3.6 the vibration impacts originating from the construction of 4665 Lampson Avenue, vibration-generating activities are appropriately evaluated the thresholds of significance outlined in the Caltrans *Transportation and Construction Vibration Guidance Manual*, (12 p. 38). These guidelines identify the maximum acceptable continuous vibration building damage threshold of 0.3 PPV (in/sec) for "older residential structures" which is used in this noise study to assess potential impacts due to Project construction vibration levels.

4.3 AIRCRAFT/AIRPORT (THRESHOLD C)

The City provides policies regarding compatibility with JFTB Los Alamitos in Policy 4.1, Land use compatibility.

The noise compatibility criteria identified in the AELUP are guidelines to evaluate the land use compatibility of aircraft-related noise. The compatibility criteria, shown on Exhibit 3-D, indicates residential land uses exposed to noise levels less than 65 dBA CNEL are "normally consistent" and no special noise reduction requirements are identified. Residential land uses exposed to noise levels less than 70 dBA CNEL are considered "conditionally consistent" with the ALEUP and would be required to ensure that the interior CNEL does not exceed 45 dBA CNEL. For noise levels greater than 70 dBA CNEL, the ALUEP considers residential land use inconsistent, unless interior noise levels are reduced to 45 dBA CNEL and that all units are interior oriented to preclude impacts on exterior use areas. The ALEUP does not require any additional considerations for exterior locations exposed to noise levels below 70 dBA CNEL.

The AELUP compatibility criteria are generally consistent with the City of Los Alamitos General Plan Policy 4.1, where the residential land uses of the Project are considered *clearly compatible* with unmitigated exterior noise levels of less than 60 dBA CNEL and *normally compatible* with unmitigated exterior noise levels approaching 70 dBA CNEL, *new construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed noise insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice.* For *normally incompatible* exterior noise levels, exceeding 70 dBA CNEL, *new construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements are made and needed noise insulation features must be included in the design.*

Therefore, for purposes of this analysis, exposure of exterior use areas to noise levels in excess of 70 dBA CNEL would be considered significant, and exposure of residential land uses to noise levels in excess of 65 dBA CNEL would be significant unless noise levels in interior habitable rooms are reduced to 45 dBA CNEL.

4.4 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-1 shows the significance criteria summary matrix that includes the allowable criteria used to identify potentially significant incremental noise level increases.

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Condition(s)	Significance Criteria	
		Daytime	Nighttime
On-Site Traffic[1]	Exterior Noise Level Criteria[1]	See Exhibit 3A	
	Interior Noise Level Standard[1]	45 dBA CNEL	
On-Site Aircraft[2]	Exterior Noise Level Criteria[1,2]	See Exhibits 3A and 3D	
	Interior Noise Level Standard[2]	45 dBA CNEL	
Off-Site Traffic[3]	If ambient is < 60 dBA CNEL[3]	≥ 5 dBA CNEL Project increase	
	If ambient is 60 - 65 dBA CNE[3]L	≥ 3 dBA CNEL Project increase	
	If ambient is > 65 dBA CNEL[3]	≥ 1.5 dBA CNEL Project increase	
Operational	Exterior Noise Level Standards[4]	55 dBA L_{eq}	50 dBA L_{eq}
	If ambient is < 60 dBA Leq[3]	≥ 5 dBA L_{eq} Project increase	
	If ambient is 60 - 65 dBA Leq[3]	≥ 3 dBA L_{eq} Project increase	
	If ambient is > 65 dBA Leq[3]	≥ 1.5 dBA L_{eq} Project increase	
Construction	Noise Level Threshold[5]	80 dBA L_{eq}	
	Vibration Level Threshold[6]	0.30 in/sec PPV	

[1] City of Los Alamitos General Plan Public Facilities and Safety Element.
[2] Orange County ALUC, Airport Environs Land Use Plan for Joint Forces Training Base Los Alamitos, August 2017.
[3] FICON, 1992
[4] City of Los Alamitos Municipal Code, Section 17.20.050
[5] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
[6] Caltrans Transportation and Construction Vibration Manual, April 2020 Table 19.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, four 24-hour noise level measurements were taken at sensitive receiver locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Monday, May 23rd, 2022. Appendix 5.1 includes study area photos.

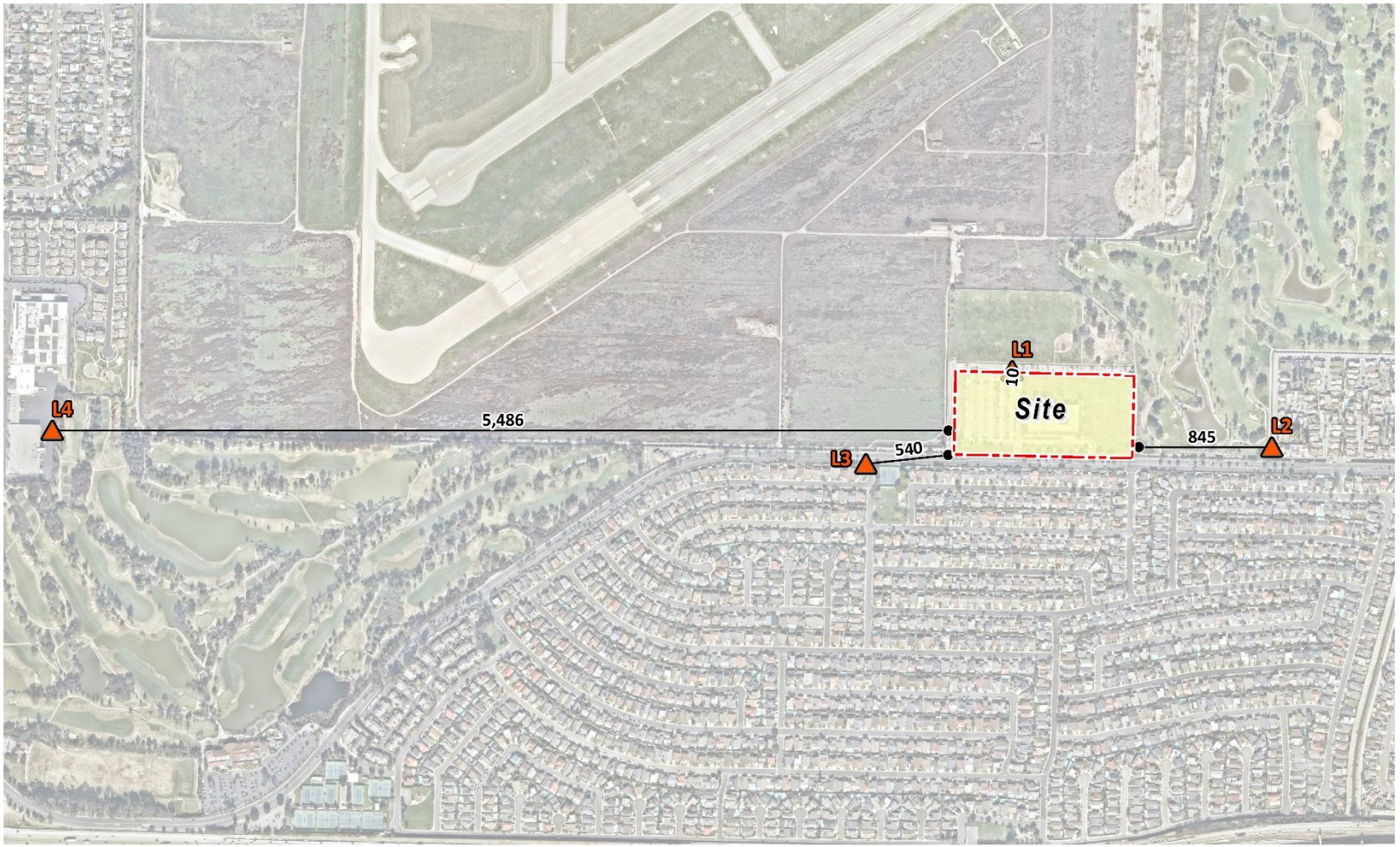
5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (23)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Actual measurement locations may be affected by location access, equipment security, and proximity to noise sources or solid objects that would affect the measurement and thus may be located at locations that have similar acoustic conditions as the desired locations. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent any part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources*. (9) Further, FTA guidance states, t*hat it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community*. (7)

EXHIBIT 5-A: AMBIENT NOISE MEASUREMENT LOCATIONS



Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each measurement represents a group of locations that share acoustical equivalence. (7) In other words, the area represented by the measurement location shares similar shielding, terrain, and geometric relationship to the reference noise source as the receiver location. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. Appendix 5.2 provides a summary of the existing hourly ambient noise levels.

TABLE 5-1: 24 HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]	
		Daytime	Nighttime
L1	Located north of the Project site near Arbor Dog Park at 4665 Lampson Avenue.	49.9	42.4
L2	Located east of the Project site near single-family residence at 5001 Lunar Drive.	60.8	52.4
L3	Located southwest of the Project site near single-family residence at 4701 Ironwood Avenue.	68.7	60.7
L4	Located west of the Project site near Old Ranch Country Club Golf Course at 3901 Lampson Avenue.	56.5	55.1

[1] See Exhibit 5-A for the noise level measurement locations.
[2] Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as

the minimum, maximum, L_1, L_2, L_5, L_8, L_{25}, L_{50}, L_{90}, L_{95}, and L_{99} percentile noise levels observed during the daytime and nighttime periods.

The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with the arterial roadway network and the nearby community facility land uses, including but not limited to JFTB Los Alamitos, Navy Golf Course, and Arbor Park located adjacent to the northern, eastern, western Project site boundaries. This includes the auto and truck activities on Lampson Avenue adjacent to the Project site and near the noise level measurement locations. The 24-hour existing noise level measurements shown on Table 5-1 present the worst-case existing unmitigated ambient noise conditions.

6 TRAFFIC NOISE METHODS AND PROCEDURES

The following section outlines the methods and procedures used to estimate and analyze the future traffic noise environment. Consistent with the City of Los Alamitos General Plan Policies for residential land use, all transportation related noise levels are presented in terms of the 24-hour CNEL.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (24) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (25) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period.

6.1.2 ON-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

The on-site roadway parameters including the average daily traffic (ADT) volumes used for this study are presented on Table 6-1. Although the Project site is located within the City of Los Alamitos, the majority of the roadways lies within the City of Seal Beach. Based on the City of Seal Beach General Plan Circulation Element, Lampson Avenue is classified as 4-lane Secondary Arterial. (26) Future average daily traffic volumes needed to assess the future on-site traffic noise environment and to identify the appropriate noise abatement measures that address the worst-case future noise conditions, shown on Table 6-1, were obtained from the 4665 Lampson Avenue Traffic Analysis prepared by Urban Crossroads on February 3, 2023 (6). The vehicle speed is based on the posted speed limit for Lampson Avenue. Soft site conditions were used to analyze the traffic noise impacts within the Project study area which account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. Research conducted by Caltrans has shown that due to the mix of ground types in actual situations, the hard site condition over predicted traffic noise levels and the use of soft site conditions is more appropriate for the application of the FHWA traffic noise prediction model . (27)

TABLE 6-1: ON SITE ROADWAY PARAMATERS

Roadway Segment	Lanes	Classification[1]	Roadway Capacity Volume[1]	Speed Limit (mph)[2]	Site Conditions
Lampson Avenue	4	Secondary Arterial	15,150	45	Soft

[1] Source: 4665 *Lampson Avenue Traffic Analysis* Urban Crossroads, Inc. February 2023.
[2] Posted speed limits.

Table 6-2 presents the time-of-day vehicle splits by vehicle type, and Table 6-3 presents the total traffic flow distributions (vehicle mixes) used for this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA Model based on roadway types. To predict the future noise environment at each building within the Project site, coordinate information was collected to identify the noise transmission path between the noise source and receiver. The coordinate information is based on the Project site plan showing the plotting of each Project building in relationship to Lampson Avenue, as shown in Exhibit 1-B and in Appendix 6.1.

TABLE 6-2: TIME OF DAY VEHICLE SPLITS

Time Period	Vehicle Type		
	Autos	Medium Trucks	Heavy Trucks
Daytime (7:00 a.m. - 7:00 p.m.)	77.5%	84.8%	86.5%
Evening (7:00 p.m. - 10:00 p.m.)	12.9%	4.9%	2.7%
Nighttime (10:00 p.m. - 7:00 a.m.)	9.6%	10.3%	10.8%
Total:	100.0%	100.0%	100.0%

Source: Typical Southern California vehicle mix.

TABLE 6-3: DISTRIBUTION OF FLOW BY VEHICLE TYPE (VEHICLE MIX)

Roadway	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
All Roadways	97.42%	1.84%	0.74%	100.00%

Source: Typical Southern California vehicle mix.

6.1.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-4 presents the roadway parameters used to assess the Project's off-site transportation noise impacts for Existing, Opening Year (2026) and General Plan Buildout (2045) Conditions, with and without Project Conditions. Table 6-4 identifies the fourteen (14) study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Los Alamitos General Plan Circulation Element, and the posted vehicle speeds.

TABLE 6-4: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Receiving Land Use[1]	Distance from Centerline to Nearest Adjacent Land Use (Feet)[2]	Vehicle Speed (mph)[3]
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	40'	45
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	40'	45
3	Lampson Ave.	e/o Basswood St.	Sensitive	40'	45
4	Lampson Ave.	e/o Candleberry St.	Sensitive	40'	45
5	Lampson Ave.	e/o Heather St.	Sensitive	40'	45
6	Lampson Ave.	e/o Driveway 1	Sensitive	40'	45
7	Lampson Ave.	e/o Driveway 2	Sensitive	40'	45
8	Lampson Ave.	e/o Rose St.	Sensitive	40'	45
9	Lampson Ave.	e/o Tulip St.	Sensitive	40'	45
10	Lampson Ave.	e/o Valley View St.	Sensitive	40'	45
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	73'	40
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	73'	40
13	Valley View St.	n/o Lampson Ave.	Sensitive	73'	45
14	Valley View St.	s/o Lampson Ave.	Sensitive	73'	45

[1] Source: City of Los Alamitos Land Use Element Figure 1, City of Seal Beach General Plan Land Use Element, Figure 4.
[2] Distance to adjacent land use is based upon the right-of-way distances for each functional roadway classification provided in the City of Seal Beach Circulation Element.
[3] Posted speed limits in the Project study area.

The average daily traffic volumes used for this study are presented on Table 6-5 and are based on *4665 Lampson Avenue Traffic Analysis* prepared by Urban Crossroads, Inc. (6) Table 6-2 presents the time of day vehicle splits and Table 6-3 presents the traffic flow distributions (vehicle mix) used for this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA noise prediction model.

TABLE 6-5: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Existing		OY 2026		GBPO 2045	
			Without Project	With Project	Without Project	With Project	Without Project	With Project
1	Lampson Ave.	e/o Los Alamitos Blvd.	17,350	18,250	20,350	21,250	22,350	23,300
2	Lampson Ave.	e/o Old Ranch Plaza	16,550	17,450	19,050	19,950	20,000	20,900
3	Lampson Ave.	e/o Basswood St.	13,150	14,100	15,200	16,150	16,000	16,900
4	Lampson Ave.	e/o Candleberry St.	11,450	12,350	13,500	14,400	14,150	15,100
5	Lampson Ave.	e/o Heather St.	11,650	12,600	13,750	14,700	14,450	15,350
6	Lampson Ave.	e/o Driveway 1	11,450	12,350	13,600	14,500	14,250	15,150
7	Lampson Ave.	e/o Driveway 2	11,450	12,200	13,600	14,350	14,250	15,000
8	Lampson Ave.	e/o Rose St.	12,050	12,800	14,300	15,050	15,000	15,750
9	Lampson Ave.	e/o Tulip St.	13,000	13,750	15,450	16,200	16,200	16,950
10	Lampson Ave.	e/o Valley View St.	10,200	10,450	11,400	11,650	12,700	12,950
11	Los Alamitos Blvd.	n/o Lampson Ave.	38,350	41,650	41,150	44,450	48,550	48,900
12	Los Alamitos Blvd.	s/o Lampson Ave.	36,650	37,250	42,250	42,850	46,500	47,050
13	Valley View St.	n/o Lampson Ave.	41,500	41,700	46,100	46,300	50,750	50,900
14	Valley View St.	s/o Lampson Ave.	40,850	41,200	45,150	45,500	49,650	50,000

[1] 4665 Lampson Traffic Analysis, Urban Crossroads, Inc.

7 ON-SITE TRAFFIC NOISE IMPACTS

An on-site exterior traffic noise impact analysis has been completed to determine the noise exposure levels that would result from adjacent traffic noise sources in the Project study area, and to identify potential noise abatement measures for the proposed Project that would achieve acceptable Project exterior and interior noise levels in compliance with the City of Los Alamitos land use and noise compatibility policies. The primary source of traffic noise affecting the Project site is from Lampson Avenue. The Project will also experience some background traffic noise from the Project's internal local streets, however, due to low traffic volume/speed, traffic noise from these roads will not make a significant contribution to the noise environment.

7.1 ON-SITE EXTERIOR TRAFFIC NOISE ANALYSIS

Using the FHWA and FTA noise prediction methodologies and the parameters outlined in Tables 6-1 thru 6-3, the expected future exterior noise levels at the Project buildings facing Lampson Avenue were calculated. Table 8-1 presents a summary of future exterior noise levels at the building façade of each floor. The on-site traffic noise level impacts indicate that noise levels at the Project buildings adjacent to Lampson Avenue would experience unmitigated exterior noise levels of ranging from 64.6 to 72.8 dBA CNEL. The on-site traffic noise analysis calculations are provided in Appendix 7.1.

To satisfy the City of Los Alamitos normally acceptable exterior noise level standard for residential land uses construction of a seven-foot-high noise barrier along Lampson Avenue, as shown on the Exhibit ES-A. With construction of this barrier, common outdoor activity areas with exposure to Lampson Avenue traffic noise would be exposed to noise levels less than 65 dBA CNEL which would satisfy the City of Los Alamitos clearly acceptable exterior noise level standard for multi-family residential land uses. With the proposed noise barrier shown on Exhibit ES-A, the future exterior noise levels at the single-family backyards and multi-family common outdoor activity areas will range from 58.3 to 63.6 dBA CNEL. This noise analysis shows that the recommended noise barrier will satisfy the City of Los Alamitos normally acceptable exterior noise level standard for single-family and clearly acceptable exterior noise level standard for multi-family residential land uses.

TABLE 7-1: EXTERIOR NOISE LEVELS (DBA CNEL)

Receiver Location (Land Use Type)	Source	Unmitigated Noise Level (dBA CNEL)	Mitigated Noise Level (dBA CNEL)	Barrier Height (Feet)	Land Use Compatibility[3]
Apartments	Lampson Avenue	72.8	63.8	7.0	Clearly Acceptable
Single Family	Lampson Avenue	72.8	63.8	7.0	Clearly Acceptable
Park	Lampson Avenue	64.6	58.3	7.0	Clearly Acceptable

[1] Exterior noise level calculations are included in Appendix 7.1.
[2] Barrier heights are based on the Project site plan included in Appendix 6.1.
[3] City of Los Alamitos General Plan Public Facilities and Safety Element (Table 4).

7.2 ON-SITE INTERIOR TRAFFIC NOISE ANALYSIS

To ensure that the interior traffic noise levels comply with the City of Los Alamitos interior noise level standards, future noise levels were calculated at the first and second-floor building facades.

7.2.1 NOISE REDUCTION METHODOLOGY

The interior noise level is the difference between the predicted exterior noise level at the building facade and the noise reduction of the structure. Typical building construction will provide a Noise Reduction (NR) of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed." However, sound leaks, cracks and openings within the window assembly can greatly diminish its effectiveness in reducing noise. Several methods are used to improve interior noise reduction, including: (1) weather-stripped solid core exterior doors; (2) upgraded dual glazed windows; (3) mechanical ventilation/air conditioning; and (4) exterior wall/roof assembles free of cut outs or openings.

7.2.2 INTERIOR NOISE LEVEL ASSESSMENT

It is our understanding that the Project will provide mechanical ventilation (e.g. air conditioning) in all units. Therefore, Tables 7-2 and 7-3 present interior noise levels based on a windows-closed condition. Table 7-2 shows that the future noise levels at the first-floor building façades adjacent to Lampson Avenue are estimated to be 63.6 dBA CNEL with interior noise levels of 38.6 dBA CNEL. The first-floor interior noise level analysis shows that the City of Los Alamitos 45 dBA CNEL interior noise standards can be satisfied using standard construction for all first-floor units. The on-site traffic interior noise analysis calculations are provided in Appendix 7.1.

TABLE 7-2: FIRST FLOOR INTERIOR TRAFFIC NOISE LEVELS

Receiver Location (Land Use Type)	Noise Level at Façade[1]	Required Interior NR[2]	Estimated Interior NR[3]	Upgraded Windows[4]	Interior Noise Level[5]	Threshold	Threshold Exceeded?
Apartments	63.6	18.6	25.0	No	38.6	45	No
Single Family	63.6	18.6	25.0	No	38.6	45	No

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] Estimated minimum interior noise reduction.
[4] Does the required interior noise reduction trigger upgraded with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.
"NR" = Noise reduction

Table 7-3 shows the future noise levels at the second-floor building façades adjacent to Lampson Avenue are estimated to be 71.3 dBA CNEL with interior noise levels of 46.3 dBA CNEL. Based on the second-floor interior noise level analysis, to comply with the City of Los Alamitos 45 dBA CNEL interior noise standards second floor units and habitable rooms would require windows with an STC rating of 29.

TABLE 7-3: SECOND FLOOR INTERIOR TRAFFIC NOISE LEVELS

Receiver Location (Land Use Type)	Noise Level at Façade[1]	Required Interior NR[2]	Estimated Interior NR[3]	Upgraded Windows[4]	Interior Noise Level[5]	Threshold	Threshold Exceeded?
Apartments	71.3	26.3	25.0	No	46.3	45	Yes
Single Family	71.3	26.3	25.0	No	46.3	45	Yes

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] Estimated minimum interior noise reduction.
[4] Does the required interior noise reduction trigger upgraded with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.
"NR" = Noise reduction

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8 OFF-SITE TRAFFIC NOISE IMPACTS

To assess the off-site traffic CNEL noise level impacts associated with development of the proposed Project, noise level contours were developed based on *4665 Lampson Avenue Traffic Impact Analysis.* (6) Noise level contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise level contours were developed for the following traffic scenarios:

- Existing Conditions (2023): This scenario refers to existing traffic conditions.
- Existing Plus Project Conditions (2023+P): This scenario refers to existing traffic conditions plus project traffic increases.
- Opening Year (2026) Conditions (OY 2026): This scenario includes Existing traffic volumes plus an ambient growth factor of 8.24% plus traffic from pending and approved but not yet constructed known development projects in the area.
- Opening Year (2026) Plus Project Conditions (OY 2026+P): This scenario includes Opening Year Cumulative (2026) Without Project volumes plus Project traffic increases.
- General Plan Buildout (2045) Without Project Conditions (GBPO): This scenario includes Existing traffic volumes plus an ambient growth factor of 14% plus traffic from pending and approved but not yet constructed known development projects in the area.
- General Plan Buildout (2045) With Project Conditions (GBPO+P): This scenario includes General Plan Buildout Without Project volumes plus Project traffic increases.

8.1 TRAFFIC NOISE LEVEL CONTOURS

Noise contours were used to assess the Project's incremental 24-hour dBA CNEL traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA CNEL noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area.

Tables 8-1 through 8-6 present a summary of the exterior dBA CNEL traffic noise levels. Roadway segments are analyzed in each of the following timeframes: Existing, Opening Year 2022 with and without Project Buildout, General Plan Buildout (2045) with and without Project conditions. Appendix 8.1 includes a summary of the dBA CNEL traffic noise level contours for each of the traffic scenarios.

TABLE 8-1: EXISTING 2023 WITHOUT PROJECT CONDITIONS NOISE LEVEL CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	71.6	RW	110	236
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	71.4	RW	106	229
3	Lampson Ave.	e/o Basswood St.	Sensitive	70.4	RW	91	196
4	Lampson Ave.	e/o Candleberry St.	Sensitive	69.8	RW	83	179
5	Lampson Ave.	e/o Heather St.	Sensitive	69.8	RW	84	181
6	Lampson Ave.	e/o Driveway 1	Sensitive	69.8	RW	83	179
7	Lampson Ave.	e/o Driveway 2	Sensitive	69.8	RW	83	179
8	Lampson Ave.	e/o Rose St.	Sensitive	70.0	RW	86	185
9	Lampson Ave.	e/o Tulip St.	Sensitive	70.3	RW	90	195
10	Lampson Ave.	e/o Valley View St.	Sensitive	69.3	RW	RW	166
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	69.1	RW	RW	296
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	68.9	RW	RW	287
13	Valley View St.	n/o Lampson Ave.	Sensitive	70.7	RW	176	379
14	Valley View St.	s/o Lampson Ave.	Sensitive	70.7	RW	174	375

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 8-2: EXISTING 2023 WITH PROJECT CONDITIONS NOISE LEVEL CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	71.8	RW	113	244
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	71.6	RW	110	237
3	Lampson Ave.	e/o Basswood St.	Sensitive	70.7	RW	95	206
4	Lampson Ave.	e/o Candleberry St.	Sensitive	70.1	RW	87	188
5	Lampson Ave.	e/o Heather St.	Sensitive	70.2	RW	89	191
6	Lampson Ave.	e/o Driveway 1	Sensitive	70.1	RW	87	188
7	Lampson Ave.	e/o Driveway 2	Sensitive	70.0	RW	87	187
8	Lampson Ave.	e/o Rose St.	Sensitive	70.2	RW	89	193
9	Lampson Ave.	e/o Tulip St.	Sensitive	70.6	RW	94	202
10	Lampson Ave.	e/o Valley View St.	Sensitive	69.4	RW	RW	168
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	69.5	RW	RW	313
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	69.0	RW	RW	290
13	Valley View St.	n/o Lampson Ave.	Sensitive	70.8	RW	176	380
14	Valley View St.	s/o Lampson Ave.	Sensitive	70.7	RW	175	377

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 8-3: OY 2026 WITHOUT PROJECT CONDITIONS NOISE LEVEL CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	72.3	RW	122	263
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	72.0	RW	117	251
3	Lampson Ave.	e/o Basswood St.	Sensitive	71.0	RW	100	216
4	Lampson Ave.	e/o Candleberry St.	Sensitive	70.5	RW	93	200
5	Lampson Ave.	e/o Heather St.	Sensitive	70.6	RW	94	202
6	Lampson Ave.	e/o Driveway 1	Sensitive	70.5	RW	93	201
7	Lampson Ave.	e/o Driveway 2	Sensitive	70.5	RW	93	201
8	Lampson Ave.	e/o Rose St.	Sensitive	70.7	RW	96	208
9	Lampson Ave.	e/o Tulip St.	Sensitive	71.1	RW	101	219
10	Lampson Ave.	e/o Valley View St.	Sensitive	69.7	RW	83	178
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	69.4	RW	RW	310
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	69.5	RW	146	316
13	Valley View St.	n/o Lampson Ave.	Sensitive	71.2	RW	189	407
14	Valley View St.	s/o Lampson Ave.	Sensitive	71.1	RW	186	401

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 8-4: OY 2026 WITH PROJECT CONDITIONS NOISE LEVEL CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	72.4	RW	125	270
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	72.2	RW	120	259
3	Lampson Ave.	e/o Basswood St.	Sensitive	71.3	RW	104	225
4	Lampson Ave.	e/o Candleberry St.	Sensitive	70.8	RW	97	209
5	Lampson Ave.	e/o Heather St.	Sensitive	70.8	RW	98	211
6	Lampson Ave.	e/o Driveway 1	Sensitive	70.8	RW	97	209
7	Lampson Ave.	e/o Driveway 2	Sensitive	70.7	RW	97	208
8	Lampson Ave.	e/o Rose St.	Sensitive	70.9	RW	100	215
9	Lampson Ave.	e/o Tulip St.	Sensitive	71.3	RW	105	226
10	Lampson Ave.	e/o Valley View St.	Sensitive	69.8	RW	84	181
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	69.8	RW	152	326
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	69.6	RW	148	319
13	Valley View St.	n/o Lampson Ave.	Sensitive	71.2	RW	189	408
14	Valley View St.	s/o Lampson Ave.	Sensitive	71.1	RW	187	403

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 8-5: GPBO 2045 WITHOUT PROJECT CONDITIONS NOISE LEVEL CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	72.7	RW	130	280
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	72.2	RW	120	260
3	Lampson Ave.	e/o Basswood St.	Sensitive	71.2	RW	104	224
4	Lampson Ave.	e/o Candleberry St.	Sensitive	70.7	RW	96	206
5	Lampson Ave.	e/o Heather St.	Sensitive	70.8	RW	97	209
6	Lampson Ave.	e/o Driveway 1	Sensitive	70.7	RW	96	207
7	Lampson Ave.	e/o Driveway 2	Sensitive	70.7	RW	96	207
8	Lampson Ave.	e/o Rose St.	Sensitive	70.9	RW	99	214
9	Lampson Ave.	e/o Tulip St.	Sensitive	71.3	RW	105	226
10	Lampson Ave.	e/o Valley View St.	Sensitive	70.2	RW	89	192
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	70.1	RW	161	346
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	70.0	RW	156	336
13	Valley View St.	n/o Lampson Ave.	Sensitive	71.6	RW	201	433
14	Valley View St.	s/o Lampson Ave.	Sensitive	71.5	RW	198	427

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 8-6: GPBO 2045 WITH PROJECT CONDITIONS NOISE LEVEL CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	72.8	RW	133	287
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	72.4	RW	124	267
3	Lampson Ave.	e/o Basswood St.	Sensitive	71.5	RW	108	232
4	Lampson Ave.	e/o Candleberry St.	Sensitive	71.0	RW	100	215
5	Lampson Ave.	e/o Heather St.	Sensitive	71.0	RW	101	218
6	Lampson Ave.	e/o Driveway 1	Sensitive	71.0	RW	100	216
7	Lampson Ave.	e/o Driveway 2	Sensitive	70.9	RW	99	214
8	Lampson Ave.	e/o Rose St.	Sensitive	71.1	RW	103	221
9	Lampson Ave.	e/o Tulip St.	Sensitive	71.5	RW	108	232
10	Lampson Ave.	e/o Valley View St.	Sensitive	70.3	RW	90	194
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	70.2	RW	161	348
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	70.0	RW	157	339
13	Valley View St.	n/o Lampson Ave.	Sensitive	71.6	RW	202	434
14	Valley View St.	s/o Lampson Ave.	Sensitive	71.5	RW	199	429

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

8.2 EXISTING 2023 CONDITION PROJECT TRAFFIC NOISE LEVELS

Table 8-1 presents the Existing 2023 without Project conditions CNEL noise levels, which are expected to range from 68.9 to 71.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 8-2 shows the Existing 2023 with Project conditions will range from 69.0 to 71.8 dBA CNEL. As shown on Table 8-7 the Existing 2023 with Project will generate a noise level increase of up to 0.4 dBA CNEL on the study area roadway segments. Based on the significance criteria in Section 4.2 for off-site traffic noise impacts, the Project-related noise level increases are considered less than significant under Existing 2023 conditions at the land uses adjacent to roadways conveying Project traffic.

8.3 OY 2026 TRAFFIC NOISE LEVEL INCREASES

Table 8-3 presents the OY 2026 without Project conditions CNEL noise levels, which are expected to range from 69.4 to 72.3 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 8-4 shows the OY 2026 with Project conditions will range from 69.6 to 72.4 dBA CNEL. Table 8-8 shows that the OY 2026 Project off-site traffic noise level increases of up to 0.4 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Section 4.2 for off-site traffic noise impacts, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases due to unmitigated OY 2026 Project-related traffic noise levels.

8.4 GPBO 2045 TRAFFIC NOISE LEVEL INCREASES

Table 8-5 presents the GPBO 2045 without Project conditions CNEL noise levels, which are expected to range from 70.0 to 72.7 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 8-6 shows the GPBO 2045 with Project conditions will range from 70.0 to 72.8 dBA CNEL. Table 8-9 shows that the GPBO 2045 Project off-site traffic noise level increases of up to 0.3 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Section 4.2 for off-site traffic noise impacts, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases due to unmitigated GPBO 2045 Project-related traffic noise levels.

8.5 CUMULATIVE TRAFFIC NOISE LEVEL INCREASES

Table 8-10 shows that the Project off-site contribution to cumulative traffic noise level increases range from 0.7 to 1.0 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Section 4.2 for off-site traffic noise impacts, land uses adjacent to the study area roadway segments would not experience substantial noise level increases due to Project-related traffic noise level increases and would be considered a *less than significant impact*.

TABLE 8-7: EXISTING 2023 OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	71.6	71.8	0.2	Yes	1.5	No
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	71.4	71.6	0.2	Yes	1.5	No
3	Lampson Ave.	e/o Basswood St.	Sensitive	70.4	70.7	0.3	Yes	1.5	No
4	Lampson Ave.	e/o Candleberry St.	Sensitive	69.8	70.1	0.3	Yes	1.5	No
5	Lampson Ave.	e/o Heather St.	Sensitive	69.8	70.2	0.4	Yes	1.5	No
6	Lampson Ave.	e/o Driveway 1	Sensitive	69.8	70.1	0.3	Yes	1.5	No
7	Lampson Ave.	e/o Driveway 2	Sensitive	69.8	70.0	0.2	Yes	1.5	No
8	Lampson Ave.	e/o Rose St.	Sensitive	70.0	70.2	0.2	Yes	1.5	No
9	Lampson Ave.	e/o Tulip St.	Sensitive	70.3	70.6	0.3	Yes	1.5	No
10	Lampson Ave.	e/o Valley View St.	Sensitive	69.3	69.4	0.1	Yes	1.5	No
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	69.1	69.5	0.4	Yes	1.5	No
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	68.9	69.0	0.1	No	n/a	No
13	Valley View St.	n/o Lampson Ave.	Sensitive	70.7	70.8	0.1	Yes	1.5	No
14	Valley View St.	s/o Lampson Ave.	Sensitive	70.7	70.7	0.0	Yes	1.5	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 8-8: OY 2026 OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	72.3	72.4	0.1	Yes	1.5	No
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	72.0	72.2	0.2	Yes	1.5	No
3	Lampson Ave.	e/o Basswood St.	Sensitive	71.0	71.3	0.3	Yes	1.5	No
4	Lampson Ave.	e/o Candleberry St.	Sensitive	70.5	70.8	0.3	Yes	1.5	No
5	Lampson Ave.	e/o Heather St.	Sensitive	70.6	70.8	0.2	Yes	1.5	No
6	Lampson Ave.	e/o Driveway 1	Sensitive	70.5	70.8	0.3	Yes	1.5	No
7	Lampson Ave.	e/o Driveway 2	Sensitive	70.5	70.7	0.2	Yes	1.5	No
8	Lampson Ave.	e/o Rose St.	Sensitive	70.7	70.9	0.2	Yes	1.5	No
9	Lampson Ave.	e/o Tulip St.	Sensitive	71.1	71.3	0.2	Yes	1.5	No
10	Lampson Ave.	e/o Valley View St.	Sensitive	69.7	69.8	0.1	Yes	1.5	No
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	69.4	69.8	0.4	Yes	1.5	No
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	69.5	69.6	0.1	No	n/a	No
13	Valley View St.	n/o Lampson Ave.	Sensitive	71.2	71.2	0.0	Yes	1.5	No
14	Valley View St.	s/o Lampson Ave.	Sensitive	71.1	71.1	0.0	Yes	1.5	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 8-9: GPBO 2045 OFF-SITE PROJECT-RELATED TRAFFIC NOISE IMPACTS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	72.7	72.8	0.1	Yes	1.5	No
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	72.2	72.4	0.2	Yes	1.5	No
3	Lampson Ave.	e/o Basswood St.	Sensitive	71.2	71.5	0.3	Yes	1.5	No
4	Lampson Ave.	e/o Candleberry St.	Sensitive	70.7	71.0	0.3	Yes	1.5	No
5	Lampson Ave.	e/o Heather St.	Sensitive	70.8	71.0	0.2	Yes	1.5	No
6	Lampson Ave.	e/o Driveway 1	Sensitive	70.7	71.0	0.3	Yes	1.5	No
7	Lampson Ave.	e/o Driveway 2	Sensitive	70.7	70.9	0.2	Yes	1.5	No
8	Lampson Ave.	e/o Rose St.	Sensitive	70.9	71.1	0.2	Yes	1.5	No
9	Lampson Ave.	e/o Tulip St.	Sensitive	71.3	71.5	0.2	Yes	1.5	No
10	Lampson Ave.	e/o Valley View St.	Sensitive	70.2	70.3	0.1	Yes	1.5	No
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	70.1	70.2	0.1	Yes	1.5	No
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	70.0	70.0	0.0	No	n/a	No
13	Valley View St.	n/o Lampson Ave.	Sensitive	71.6	71.6	0.0	Yes	1.5	No
14	Valley View St.	s/o Lampson Ave.	Sensitive	71.5	71.5	0.0	Yes	1.5	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 8-10: CUMULATIVE PROJECT TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]					Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				Existing	Existing With Project	GPBO 2045 With Project	Cumulative Increase	Project Contribution		Limit	Exceeded?
1	Lampson Ave.	e/o Los Alamitos Blvd.	Sensitive	71.6	71.8	72.8	1.2	1.0	Yes	1.5	No
2	Lampson Ave.	e/o Old Ranch Plaza	Sensitive	71.4	71.6	72.4	1.0	0.8	Yes	1.5	No
3	Lampson Ave.	e/o Basswood St.	Sensitive	70.4	70.7	71.5	1.1	0.8	Yes	1.5	No
4	Lampson Ave.	e/o Candleberry St.	Sensitive	69.8	70.1	71.0	1.2	0.9	Yes	1.5	No
5	Lampson Ave.	e/o Heather St.	Sensitive	69.8	70.2	71.0	1.2	0.8	Yes	1.5	No
6	Lampson Ave.	e/o Driveway 1	Sensitive	69.8	70.1	71.0	1.2	0.9	Yes	1.5	No
7	Lampson Ave.	e/o Driveway 2	Sensitive	69.8	70.0	70.9	1.1	0.9	Yes	1.5	No
8	Lampson Ave.	e/o Rose St.	Sensitive	70.0	70.2	71.1	1.1	0.9	Yes	1.5	No
9	Lampson Ave.	e/o Tulip St.	Sensitive	70.3	70.6	71.5	1.2	0.9	Yes	1.5	No
10	Lampson Ave.	e/o Valley View St.	Sensitive	69.3	69.4	70.3	1.0	0.9	Yes	1.5	No
11	Los Alamitos Blvd.	n/o Lampson Ave.	Sensitive	69.1	69.5	70.2	1.1	0.7	Yes	1.5	No
12	Los Alamitos Blvd.	s/o Lampson Ave.	Non-Sensitive	68.9	69.0	70.0	1.1	1.0	No	n/a	No
13	Valley View St.	n/o Lampson Ave.	Sensitive	70.7	70.8	71.6	0.9	0.8	Yes	1.5	No
14	Valley View St.	s/o Lampson Ave.	Sensitive	70.7	70.7	71.5	0.8	0.8	Yes	1.5	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

9 RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 9-A, were identified as representative locations for analysis. Receiver locations are modeled points used to assess impacts. The measurements shown on Exhibit 9-A are representative of receiver locations, because not all receiver locations are accessible (e.g., located on private property, unable to physically access, etc.) Thus, the receiver locations were chosen to be acoustically representative or similar in nature.

Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, four representative receiver locations in the vicinity of the Project site were identified. All distances are measured from the Project site boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

R1: Location R1 represents existing noise sensitive Arbor Dog Park at 4665 Lampson Avenue, approximately 173 feet north of the Project site. Receiver R1 is placed at the Park's open space. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

R2: Location R2 represents the existing noise sensitive residence at 12462 Lunar Drive, approximately 887 feet east of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R2 is placed at the building façade. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3: Location R3 represents the existing noise sensitive residence at 4625 Ironwood Avenue, approximately 82 feet south of the Project site. Receiver R3 is placed at the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.

R4: Location R4 represents the existing noise sensitive residence at 12322 Provincetown Street, approximately 5,046 feet west of the Project site. Receiver R4 is placed at the private outdoor living areas (backyards) facing the Project site.

EXHIBIT 9-A: RECEIVER LOCATIONS

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10 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 9, resulting from the operation of the proposed 4665 Lampson Avenue Project. Exhibit 10-A identifies the representative noise source locations used to assess the operational noise levels. This section analyzes the potential operational noise impacts resulting from the operation of roof-top and ground-mounted air conditioning units, parking lot vehicle movements, outdoor activity, and trash enclosure activities associated with the Project.

10.1 OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. The proposed residential development is not expected to include any specific type of operational noise levels beyond the typical noise sources associated with residential land uses in the Project study area. However, to present a conservative approach, on-site Project-only operational noise sources are analyzed in this noise study and are expected to include: roof-top and ground-mounted air conditioning units, parking lot vehicle movements, outdoor activity, and trash enclosure activities.

AIR CONDITIONING UNITS

To assess the noise levels created by the roof-top and ground-mounted air conditioning units, reference noise levels were taken from equipment specifications for a 3- to 5-ton residential packaged air conditioning unit (Carrier 24ABC6). The air conditioning units were modeled as operating 45 minutes per hour during the daytime and 30 minutes at nighttime, which represents the typical maximum operating time for properly sized AC systems. For this noise analysis, 77 air conditioning units are expected to be located on the roof of the proposed affordable apartment buildings and 169 ground-mounted air conditioning units are located adjacent to single family detached residential units (cluster homes) and multifamily units (low-rise), as indicated on the Project site plan. The roof-top air conditioning units are anticipated to be located 3 feet above the roof and ground. At a uniform reference distance of 50 feet the units would generate a reference noise level of 44.4 dBA L_{eq}.

PARKING LOT ACTIVITIES

To determine the noise levels associated with parking lot vehicle movements, Urban Crossroads collected reference noise level measurements over a 24-hour period, at the parking lot for the Panasonic Avionics Corporation in the City of Lake Forest. The peak hour of activity measured over the 24-hour noise level measurement period occurred between 12:00 p.m. to 1:00 p.m., or the typical lunch hour for employees working in the area. The measured reference noise level at 50 feet from parking lot vehicle movements was measured at 56.2 dBA L_{eq}. The parking lot noise levels are mainly due to cars pulling in and out of spaces during peak lunch hour activity and employees talking. Noise associated with parking lot vehicle movements is expected to operate for the entire hour (60 minutes).

EXHIBIT 10-A: OPERATIONAL NOISE SOURCE LOCATIONS

OUTDOOR ACTIVITY AREAS

To describe the outdoor common area courtyards activity areas, a reference noise level measurement was taken by Urban Crossroads, Inc, at Washington Street Park in the City of Escondido. The 4.5-acre park was active during the measurement, and included a gazebo for gathering/parties, picnic tables, restrooms, two half-court basketball courts, two age-appropriate children's playgrounds, game tables, and walking paths. At 50 feet, the reference noise level is 59.9 dBA L_{eq} at a noise source height of 5 feet. The reference noise level measurement includes outdoor eating, drinking, with patrons laughing and talking. Outdoor activities are limited to the daytime hours.

TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins, at the at the Old Town West Parking structure in the City of Orange. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project site. The measured reference noise level at the uniform 50-foot reference distance is 72.7 dBA L_{max} and 57.4 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for each of the Project buildings. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

10.2 REFERENCE NOISE LEVELS

To estimate the operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment. The reference project operational noise levels are based on the Project related noise sources shown on Exhibit 10-A. The reference Project operational sound power levels are summarized in Table 10-1.

TABLE 10-1: REFERENCE NOISE LEVELS

Noise Source	Noise Source Height (Feet)	Min./Hour[2]		Reference Noise Level (dBA L_{eq})		Sound Power Level (dBA)[6]
		Day	Night	@ Ref. Dist.	@ 50 Feet	
Air Conditioning Units[1]	5'	60	60	77.2	44.4	76.0
Parking Lot Movements	5'	60	60	66.6	56.1	87.8
Outdoor Activity	5'	60	0	62.8	59.9	91.5
Trash Enclosure Activity	5'	10	10	72.7	57.4	89.0

[1] Carrier 25HBC5 air conditioning unit assumed for ground-mounted and roof-top units, see Appendix 10.1.
[2] Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

10.3 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels.

Using the ISO 9613 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 10.2 includes the detailed noise model inputs used to estimate the Project operational noise levels presented in this section.

10.4 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include trash enclosure activity, air conditioning, a loading dock, and parking lot activity, Urban Crossroads, Inc. calculated the unmitigated operational source noise levels that are expected to be generated

at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 10-2 shows the Project operational daytime noise levels. The hourly noise levels at the off-site receiver locations are expected to range from 18.9 to 48.4 dBA L_{eq}. Appendix 10.2 includes the detailed noise model inputs used to estimate the Project operational noise levels presented in this section.

TABLE 10-2: PROJECT DAYTIME OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA L_{max})			
	R1	R2	R3	R4
Air Conditioning Units	40.8	30.8	42.5	16.3
Parking Lot Movements	38.5	31.1	41.7	11.7
Outdoor Activity	40.7	32.7	45.7	13.0
Trash Enclosure Activity	25.6	18.1	28.8	7.1
Total (All Noise Sources)	**44.9**	**36.4**	**48.4**	**18.9**

[1] See Exhibit 10-A for the noise source locations. CadnaA noise model calculations are included in Appendix 10.2.

Table 10-3 shows the Project operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 15.6 to 43.3 dBA L_{eq}. Appendix 10.2 includes the detailed noise model inputs including the existing perimeter walls used to estimate the Project operational noise levels presented in this section.

TABLE 10-3: PROJECT NIGHTTIME OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA L_{max})			
	R1	R2	R3	R4
Air Conditioning Units	38.1	28.1	39.8	13.6
Parking Lot Movements	37.6	30.2	40.8	10.8
Outdoor Activity	0.0	0.0	0.0	0.0
Trash Enclosure Activity	24.6	17.1	27.8	6.2
Total (All Noise Sources)	**40.9**	**32.3**	**43.3**	**15.6**

[1] See Exhibit 10-A for the noise source locations. CadnaA noise model calculations are included in Appendix 10.2.

10.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

Tables 10-4 shows the Project operational noise levels during the daytime and nighttime hours. The daytime hourly noise levels at the off-site receiver locations are expected to range from 18.9 to 48.4 dBA $L_{eq.}$ The nighttime hourly noise levels at the off-site receiver locations are expected to range from 15.6 to 43.3 dBA L_{eq}. Appendix 10.2 includes the detailed noise model inputs used to estimate the Project operational noise levels presented in this section.

TABLE 10-4: OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location[1]	Project Operational Noise Levels (dBA Leq)[2]		Noise Level Standards (dBA Leq)[3]		Noise Level Standards Exceeded?[4]	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	44.9	40.9	50	55	No	No
R2	36.4	32.3	50	55	No	No
R3	48.4	43.3	50	55	No	No
R4	18.9	15.6	50	55	No	No

[1] See Exhibit 9-A for the receiver locations.
[2] Proposed Project operational noise levels as shown on Table 10-1.
[3] City of Los Alamitos Municipal Code, Section 17.20.050 (Appendix 3.1)
[4] Do the estimated Project operational noise source activities exceed the noise level standards?
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

10.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearest receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (9) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. Noise levels that would be experienced at receiver locations when Project-source noise is added to the daytime and nighttime ambient conditions are presented on Tables 10-2 and 10-3, respectively.

As indicated on Tables 10-5 and 10-6, the Project will generate an unmitigated daytime and nighttime operational noise level increases ranging from less than 0.0 to 1.2 dBA L_{eq} at the nearest receiver locations. In effect, the amount to which a given noise level increase is considered acceptable is reduced based on existing ambient noise conditions. Based on the operational noise level increase significance criteria presented in Section 4.2, the Project-related operational noise level increases will satisfy the operational noise level increase criteria at the nearest sensitive receiver locations and the impact will be *less than significant.*

TABLE 10-5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria	Increase Criteria Exceeded?
R1	38.5	L1	49.9	50.2	0.3	5.0	No
R2	31.1	L2	60.8	60.8	0.0	3.0	No
R3	41.7	L3	68.7	68.7	0.0	1.5	No
R4	11.7	L4	56.5	56.5	0.0	5.0	No

[1] See Exhibit 9-A for the receiver locations.
[2] Total Project daytime operational noise levels as shown on Table 10-2.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.

TABLE 10-6: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria	Increase Criteria Exceeded?
R1	37.6	L1	42.4	43.6	1.2	5.0	No
R2	30.2	L2	52.4	52.4	0.0	5.0	No
R3	40.8	L3	60.7	60.7	0.0	3.0	No
R4	10.8	L4	55.1	55.1	0.0	5.0	No

[1] See Exhibit 9-A for the receiver locations.
[2] Total Project nighttime operational noise levels as shown on Table 10-3.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed nighttime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.

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11 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 11-A shows the construction noise source locations in relation to the nearest sensitive receiver locations previously described in Section 9. Section 17.20.020 of the City of Los Alamitos Code, construction activities are exempted from the noise ordinance if it occurs between the hours of 7:00 a.m. to 8:00 p.m. on weekdays and on Saturdays. No construction is allowed at any time on Sundays or Federal holidays.

In addition, since the City of Los Alamitos has not established a numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes, a numerical construction threshold based on Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use. (7 p. 179)

11.1 CONSTRUCTION NOISE LEVELS

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators that when combined can reach high levels. The number and mix of construction equipment is expected to occur in the following stages:

- Demolition
- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

11.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (28) The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

EXHIBIT 11-A: CONSTRUCTION ACTIVITY AND RECEIVER LOCATIONS

TABLE 11-1: CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Equipmnet[1]	Reference Noise Level @ 50 Feet (dBA L_{eq})	Composite Reference Noise Level (dBA L_{eq})	Reference Power Level (dBA L_w)
Demolition	Front End Loader	75.0	84.5	116.1
	Gradall	83.0		
	Excavator	77.0		
Site Preparation	Dozer	78.0	83.4	115.1
	Front End Loader	75.0		
	Grader	81.0		
Grading	Excavator	77.0	84.0	115.6
	Tractor	80.0		
	Scraper	80.0		
Building Construction	Crane	73.0	77.4	109.1
	Backhoe	74.0		
	Generator (<25kVA)	70.0		
Paving	Paver	74.0	77.8	109.5
	Dump Truck	72.0		
	Roller	73.0		
Architectural Coating	Man Lift	68.0	76.2	107.8
	Compressor (air)	74.0		
	Generator (<25kVA)	70.0		

[1] FHWA Road Construction Noise Model.

11.3 CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. To assess a reasonable worst-case construction scenario and account for the dynamic nature of construction activities, the Project construction noise analysis models the equipment combination with the highest reference level as a moving point within the construction area (Project site boundary). Construction impacts are based on the highest noise level calculated at each receiver location. As shown on Table 11-2, the construction noise levels are expected to range from 26.8 to 63.6 dBA L_{eq}, and the highest construction levels are expected to range from 35.1 to 63.6 dBA L_{eq} at the nearby receiver locations. Appendix 11.1 includes the detailed CadnaA construction noise model inputs.

The construction noise analysis presents a conservative approach with the highest noise-level-producing equipment for each stage of Project construction operating at the closest point from primary construction activity to the nearby sensitive receiver locations. This scenario is unlikely to occur during typical construction activities and likely overstates the construction noise levels which will be experienced at each receiver location.

TABLE 11-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})						
	Demolition	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R1	59.1	58.0	58.6	52.0	52.5	50.8	58.6
R2	54.8	53.7	54.3	47.7	48.2	46.5	54.3
R3	63.6	62.5	63.1	56.5	57.0	55.3	63.1
R4	35.1	34.0	34.6	28.0	28.5	26.8	34.6

[1] The nearest construction noise source and receiver locations are shown on Exhibit 11-A. All receivers are shown on Exhibit 9A
[2] Construction noise level calculations based on distance from the project site boundaries (construction activity area) to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 11.1.

11.4 CONSTRUCTION NOISE LEVEL COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA L_{eq} is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L_{eq} significance threshold during Project construction activities as shown on Table 11-3. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

TABLE 11-3: CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	58.8	80	No
R2	54.4	80	No
R3	63.2	80	No
R4	35.6	80	No

[1] Noise receiver locations are shown on Exhibit 11-A.
[2] Highest construction noise level operating at the Project site boundary to nearby receiver locations (Table 11-2).
[3] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?

11.5 CONSTRUCTION VIBRATION IMPACTS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration (FTA). (7) However, while vehicular traffic is rarely perceptible, construction has

the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 11-4. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

TABLE 11-4: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Using the vibration source level of construction equipment provided on Table 11-4 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 11-5 presents the expected Project related vibration levels at the nearby receiver locations. At distances ranging from 51 to 5,046 feet from the Project construction activities, construction vibration velocity levels are estimated to range from less than 0.01 to 0.03 in/sec PPV. Based on maximum acceptable continuous vibration threshold of 0.30 PPV (in/sec), the typical Project construction vibration levels will satisfy the building damage thresholds at all receiver locations. Therefore, the Project-related vibration impacts are considered less than significant during the construction activities at the Project site.

In addition, the typical construction vibration levels at the nearest sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site boundaries.

TABLE 11-5: PROJECT CONSTRUCTION VIBRATION LEVELS

Receiver Location[1]	Distance to Const. Activity (Feet)[2]	Typical Construction Vibration Levels PPV (in/sec)[3]					Thresholds PPV (in/sec)[4]	Thresholds Exceeded?[5]
		Small bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Highest Vibration Level		
R1	173'	0.00	0.00	0.00	0.00	0.00	0.30	No
R2	91'	0.00	0.01	0.01	0.01	0.01	0.30	No
R3	51'	0.00	0.01	0.03	0.03	0.03	0.30	No
R4	5,046'	0.00	0.00	0.00	0.00	0.00	0.30	No

[1] Construction receiver locations are shown on Exhibit 11-A.
[2] Distance from receiver location to Project construction boundary.
[3] Based on the Vibration Source Levels of Construction Equipment (Table 11-4).
[4] FRTA Transit Noise and Vibration Impact Assessment, September 2018.
[5] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity

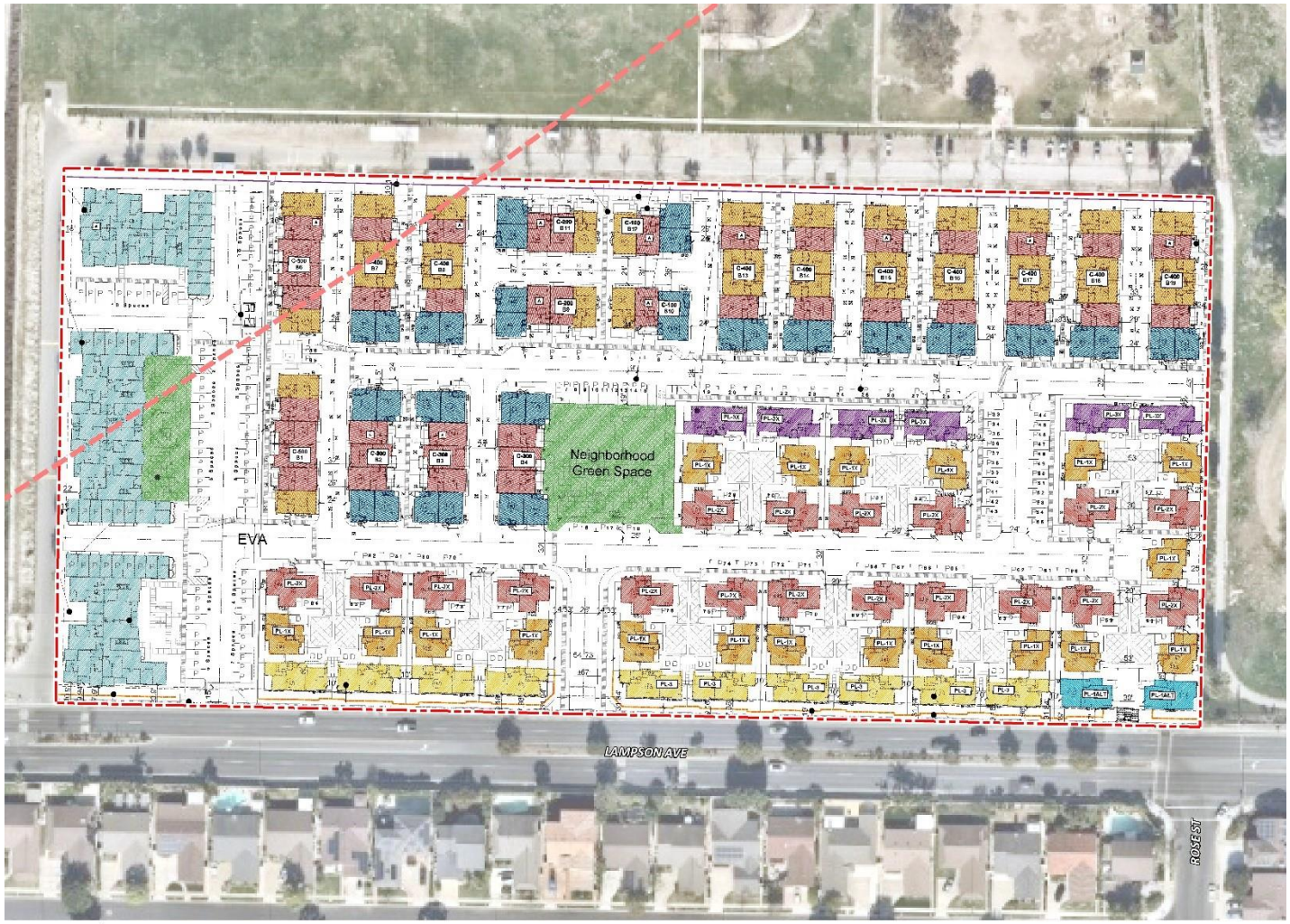
12 ON-SITE AIRCRAFT NOISE IMPACTS

An on-site exterior aircraft noise impact analysis has been completed to determine the noise exposure levels that would result from adjacent JFTB Los Alamitos aircraft noise sources in the Project study area, and to identify potential noise abatement measures for the proposed Project that would achieve acceptable Project noise levels.

The JFTB Los Alamitos is located adjacent to, and northwest of the Project. Exhibit 3-B shows the Project site in relation to the airport's projected noise level contour boundaries, as provided by the *2020 Noise Assessment for Los Alamitos Airfield, Joint Forces Training Base Los Alamitos* (19). As shown on Exhibit 12-A, the northwestern portion of the Project site would locate residential uses between the 60 and 65 dBA CNEL noise level contours of JFTB Los Alamitos. The compatibility criteria (17), shown on Exhibit 3-D, indicates residential land uses exposed to noise levels less than 60 dBA CNEL are "normally consistent", less than 65 dBA CNEL are considered "conditionally consistent" which requires an acoustical analysis to ensure that the interior CNEL does not exceed 45 dBA CNEL. The ALEUP does not require any additional considerations for exterior locations exposed to noise levels below 70 dBA CNEL.

As discussed in Section 7.2.1, typical building construction will provide a Noise Reduction (NR) of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed." Based on future JFTB Los Alamitos aircraft noise levels ranging from 60 to 65 dBA CNEL, interior noise levels would range from 35 dBA to 40 dBA CNEL. This noise level analysis shows that the 45 dBA CNEL interior noise standard can be satisfied using standard construction and complying with statutory and regulatory noise requirements for all residential units exposed to aircraft noise from JFTB Los Alamitos. Therefore, the Project would not expose people residing or working in the project area to excessive noise levels from airport or aircraft operations, and impacts would be *less than significant*.

EXHIBIT 12-A: ON-SITE AIRCRAFT NOISE LEVEL CONTOURS



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17. **Office of the Adjutant General California National Gaurd.** *Air Installation Compatible Use Zone (AICUZ) Study, Armed Forces Reserve Center Los Alamitos Airfield.* March 1994.
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14 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed 4665 Lampson Avenue Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (619) 788-1971.

William Maddux
Senior Associate
URBAN CROSSROADS, INC.
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EDUCATION

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

PROFESSIONAL AFFILIATIONS

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

PROFESSIONAL CERTIFICATIONS

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

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APPENDIX 3.1:

CITY OF LOS ALAMITOS MUNICIPAL CODE

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Chapter 17.20 NOISE

17.20.010 Purpose

A. The City establishes the noise regulations in this chapter to control unnecessary, excessive, and annoying sounds emanating from all properties and land uses in the City. It is the declared policy of the City to prohibit these sounds generated from all sources, as specified in this chapter.

B. The City recognizes and declares, based on published scientific and health data, that certain noise levels are detrimental to the public health, welfare, and general safety and contrary to public interest. Therefore, the Council does ordain and declare that creating, maintaining, causing, or allowing to create, maintain, or cause any noise in a manner prohibited by, or not in conformity with the provisions of this chapter, is a public nuisance and shall be abated and when such abated is not achieved, to be punishable as a public nuisance pursuant to Section 17.20.080 (Manner of Enforcement) of this title. (Ord. 19-03 § 3, 2019; Ord. 688 § 1, 2006)

17.20.020 Exemptions

The following activities shall be exempt from the provisions of this chapter.

A. School bands, school athletic events, and school entertainment events, provided these events are conducted on school property or authorized by special permit from the City;

B. Activities lawfully conducted in public parks, public playgrounds, and public or private school grounds;

C. A mechanical device, apparatus, or equipment used, related to, or connected with emergency machinery, vehicle, or work;

D. Noise sources associated with construction, repair, remodeling, or grading of any real property, provided a permit has been obtained from the City, and further provided the activities do not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays and on Saturdays, or at any time on Sundays or Federal holidays;

E. Noise sources associated with the maintenance of real property, provided the activities take place between the hours of 8:00 a.m. and 8:00 p.m. on weekdays and on Saturdays, or between the hours of 9:00 a.m. and 6:00 p.m. on Sunday or a Federal holiday;

F. An activity or equipment to the extent that design regulation of it has been preempted by State or Federal laws. (Ord. 19-03 § 3, 2019; Ord. 688 § 1, 2006)

17.20.030 Noise Level Measurement Criteria

Noise level measurements made in compliance with the provisions of this chapter shall be performed using a sound level meter as defined in Division 7 (Definitions). The location selected for measuring exterior noise levels shall be at any point on the property line of the offender or anywhere on the affected property. Interior noise measurements shall be made within the affected building. The measurement shall be made at a point in the affected building at least four feet from the wall, ceiling, or floor nearest the noise source. (Ord. 19-03 § 3, 2019; Ord. 688 § 1, 2006)

17.20.040 Designated Noise Districts

A. **Noise Districts.** For the purposes of controlling noise and its impacts, the City shall be divided into noise districts defined as follows:

1. Noise District 1: All properties zoned R-1, R-2, R-3, and MH.
2. Noise District 2: All properties zoned C-O, C-F, and O-A, and with an MOZ overlay.
3. Noise District 3: All properties zoned C-G and TCMU, and with the ROZ overlay.
4. Noise District 4: All properties zoned P-L-I.

B. **Unclassified.** For any property or group of properties zoned SP, the Director shall assign an applicable noise district based upon the prevailing land uses within the specific plan area. (Ord. 19-03 § 3, 2019; Ord. 688 § 1, 2006)

17.20.050 Exterior Noise Standards

A. **Baseline.** The following noise standards, unless otherwise specifically indicated, shall apply to properties within the identified noise districts. No person shall cause any noise to occur that exceeds these standards except as authorized in subsection B, below.

Table 3-01: Exterior Noise Standards

Noise District	Maximum Noise Level	Time Period
1—Daytime	55 dB(A)	7:00 a.m. to 10:00 p.m.
1—Nighttime	50 dB(A)	10:00 p.m. to 7:00 a.m.
2	55 dB(A)	Anytime
3	60 dB(A)	Anytime
4	70 dB(A)	Anytime

B. **Temporary Exceedances.** It is unlawful for any person to create noise, or to allow the creation of noise, on property owned, leased, occupied, or otherwise controlled by a person, that causes the baseline noise levels established in subsection A, either within or outside of the City, to exceed the applicable noise standard as follows:

1. For a cumulative period of more than 30 minutes in any hour;
2. Plus five dB(A) for a cumulative period of more than 15 minutes in any hour;
3. Plus 10 dB(A) for a cumulative period of more than five minutes in any hour;
4. Plus 15 dB(A) for a cumulative period of more than one minute in any hour; or
5. Plus 20 dB(A) for any period of time.

C. **Maximum Allowable Noise Levels.** In the event the ambient noise level exceeds the noise limit categories described in subsections (B)(1) through (5) of this section above, the cumulative period applicable to the category shall be increased to reflect the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under that category shall be increased to reflect the maximum ambient noise level. (Ord. 19-03 § 3, 2019; Ord. 688 § 1, 2006)

17.20.060 Interior Noise Standards

A. **Baseline.** Interior noise standards established by the State Health and Safety Code (California Code of Regulations, Title 24, Part 2) shall apply to all multi-family residential construction and uses. For all other uses, the following interior noise standards shall apply.

Table 3-02: Interior Noise Standards

Noise District	Maximum Noise Level	Time Period
1—Daytime	55 dB(A)	7:00 a.m. to 10:00 p.m.
1—Nighttime	45 dB(A)	10:00 p.m. to 7:00 a.m.
2, 3, 4	55 dB(A)	Anytime

B. **Temporary Exceedances.** It is unlawful for any person to create noise, or to allow the creation of noise, on property owned, leased, occupied, or otherwise controlled by a person, that causes the noise level, when measured within structures in the applicable noise district, to exceed:

1. The noise standard for a cumulative period of more than five minutes in an hour;

2. The noise standard plus five dB(A) for a cumulative period of more than one minute in an hour; or

3. The noise standard plus ten 10 dB(A) for any period of time.

C. **Maximum Allowable Noise Levels.** In the event the ambient noise level exceeds either of the first two noise limit categories described in subsections (B)(1) and (2) of this section, the cumulative period applicable to the category shall be increased to reflect the ambient noise level. In the event the ambient noise level exceeds the third noise limit category, the maximum allowable noise level under that category shall be increased to reflect the maximum ambient noise level.

D. **Different Noise Districts.** In the event that the noise source and the affected property are within different noise districts, the noise standards of the affected property shall apply. (Ord. 19-03 § 3, 2019; Ord. 688 § 1, 2006)

17.20.070 Special Provisions—Schools, Hospitals, and Places of Public Assembly

It is unlawful for a person to create noise that causes the noise level at a school, hospital, or place of public assembly—while the facility is in use—to exceed the noise limits specified for exterior noise in this chapter, or which noise level unreasonably interferes with the use of the facility or which unreasonably disturbs or annoys patients in a hospital, provided conspicuous signs are displayed in three separate locations within one-tenth of a mile of the school, hospital, or place of public assembly indicating the presence of such school, hospital, or place of public assembly. (Ord. 19-03 § 3, 2019; Ord. 688 § 1, 2006)

17.20.080 Manner of Enforcement

A. The Director and duly authorized representatives are directed to enforce the provisions of this chapter. The Police Chief and duly authorized representatives are authorized in compliance with Penal Code Section 836.5 to arrest any person without a warrant when they have reasonable cause to believe that a person has committed a misdemeanor in their presence.

B. Persons shall not interfere with, oppose, or resist an authorized person charged with enforcement of this chapter while any person is engaged in the performance of his or her duty. (Ord. 19-03 § 3, 2019; Ord. 688 § 1, 2006)

17.20.090 Relief from Standards—Application Procedure

A. **Application Requirements.** The owner or operator of a noise source that violates any of the provisions of this chapter may file an application with the Director for relief from the provisions, and the owner or operator shall detail all actions taken to comply with the provisions, the reasons why immediate compliance cannot be achieved, a proposed method of achieving compliance, and a proposed time schedule for its accomplishment. The application shall be accompanied by a fee as established by resolution of the Council.

B. **Separate Applications.** A separate application shall be filed for each noise source. However, in the circumstance that several mobile sources are under common ownership, or several fixed sources occur on a single property, such request for relief may be combined into one application. Upon receipt of the application and fee, the Director shall refer it with his/her recommendation in compliance with the provisions of this chapter.

C. **Compliance Required Until Relief Granted.** An applicant for relief shall remain subject to prosecution under the terms of this title until such relief is granted.

D. **Review Authority.** The Planning Commission shall evaluate all applications for relief from the requirements of this chapter and may grant relief with respect to time for compliance subject to the terms, conditions, and requirements as it may deem reasonable to achieve maximum compliance with the provisions of this chapter. These terms, conditions, and requirements may include, but shall not be limited to, limitations on noise levels and operating hours. Each relief application granted shall identify in detail the approved method of achieving maximum compliance and a time schedule for its accomplishment.

E. **Factors to Be Considered.** In its determinations, the Planning Commission shall consider the magnitude of nuisance caused by the offensive noise; the uses of property within the area of impingement by the noise; the time factors related to study, design, financing and construction of remedial work; the economic factors related to age and useful life of equipment; and the general public interest and welfare.

F. **Violations.** Any relief granted shall be by resolution and shall be transmitted to the Director for enforcement. A violation of the terms of the relief is unlawful. (Ord. 19-03 § 3, 2019; Ord. 688 § 1, 2006)

Contact:

City Clerk: 562-431-3538

APPENDIX 5.1:

STUDY AREA PHOTOS

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JN: 14501 Study Area Photos

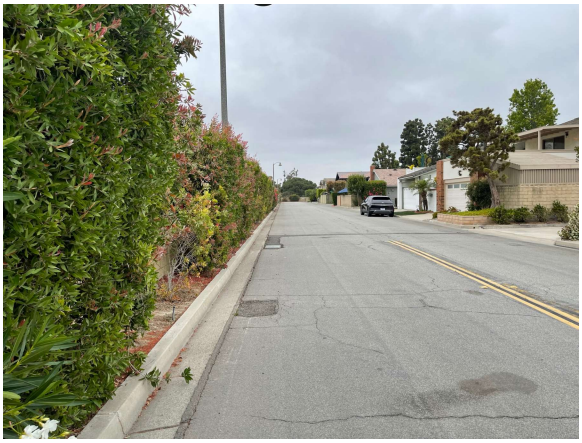
L1_E
33, 46' 57.570000"118, 2' 59.680000"

L1_N
33, 46' 57.590000"118, 2' 59.710000"

L1_S
33, 46' 57.590000"118, 2' 59.710000"

L1_W
33, 46' 57.580000"118, 2' 59.680000"

L2_E
33, 46' 53.210000"118, 2' 40.920000"



L2_N
33, 46' 53.270000"118, 2' 40.920000"

JN: 14501 Study Area Photos

L2_S
33, 46' 53.240000"118, 2' 40.920000"

L2_W
33, 46' 53.230000"118, 2' 40.920000"

L3_E
33, 46' 51.840000"118, 3' 10.150000"

L3_N
33, 46' 51.800000"118, 3' 10.310000"

L3_S
33, 46' 51.830000"118, 3' 10.280000"

L3_W
33, 46' 51.850000"118, 3' 10.120000"

JN: 14501 Study Area Photos

L4_E
33, 46' 53.010000"118, 4' 8.760000"

L4_N
33, 46' 52.980000"118, 4' 9.010000"

L4_S
33, 46' 52.990000"118, 4' 8.870000"

L4_W
33, 46' 53.010000"118, 4' 8.790000"

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APPENDIX 5.2:

NOISE LEVEL MEASUREMENTS

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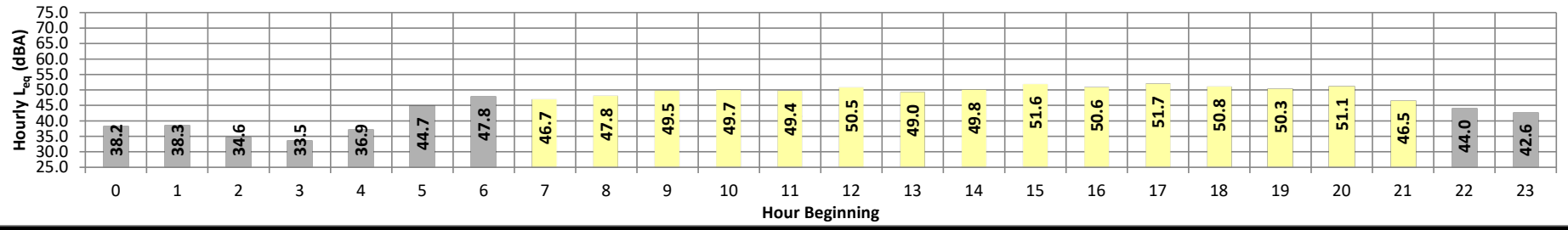
24-Hour Noise Level Measurement Summary

Date: Monday, May 23, 2022 *Location:* L1 - Located north of the Project site near Arbor Dog Park at *Meter:* Piccolo II *JN:* 14501

Project: 4665 Lampson *Source:* 4665 Lampson Avenue. *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	38.2	41.9	35.9	41.6	41.4	40.8	40.3	39.0	37.6	36.5	36.3	36.0	38.2	10.0	48.2
	1	38.3	43.5	35.9	43.0	42.7	41.6	40.5	38.7	37.6	36.4	36.3	36.0	38.3	10.0	48.3
	2	34.6	37.8	33.0	37.5	37.2	36.5	36.1	34.9	34.2	33.4	33.3	33.1	34.6	10.0	44.6
	3	33.5	36.4	32.4	36.1	35.8	35.2	34.7	33.7	33.2	32.7	32.6	32.5	33.5	10.0	43.5
	4	36.9	42.1	35.2	41.4	40.7	39.3	38.3	37.1	36.5	35.6	35.5	35.3	36.9	10.0	46.9
	5	44.7	51.5	38.9	51.0	50.4	49.2	48.2	45.8	43.2	40.2	39.6	39.1	44.7	10.0	54.7
	6	47.8	53.7	43.0	53.3	53.0	51.9	51.5	48.6	46.3	44.0	43.6	43.2	47.8	10.0	57.8
Day	7	46.7	52.9	42.4	52.4	52.0	51.0	50.2	47.6	45.4	43.1	42.8	42.5	46.7	0.0	46.7
	8	47.8	56.1	42.5	55.0	54.3	52.8	51.7	48.2	45.6	43.3	43.0	42.7	47.8	0.0	47.8
	9	49.5	57.2	45.5	56.5	55.6	54.0	52.9	49.7	48.0	46.1	45.9	45.6	49.5	0.0	49.5
	10	49.7	54.4	46.5	54.0	53.7	53.1	52.6	50.3	48.9	47.1	46.9	46.6	49.7	0.0	49.7
	11	49.4	53.7	46.7	53.4	53.1	52.4	51.9	50.2	48.6	47.2	47.0	46.8	49.4	0.0	49.4
	12	50.5	69.7	48.9	68.2	67.1	63.6	61.9	57.3	53.8	50.2	49.8	49.3	50.5	0.0	50.5
	13	49.0	55.5	44.7	55.1	54.6	53.2	52.3	49.9	47.4	45.4	45.1	44.8	49.0	0.0	49.0
	14	49.8	56.5	46.1	55.9	55.3	54.0	53.1	50.3	48.4	46.7	46.5	46.2	49.8	0.0	49.8
	15	51.6	57.7	46.6	57.3	56.8	55.9	55.2	52.8	49.5	47.2	47.0	46.7	51.6	0.0	51.6
	16	50.6	55.3	47.5	55.0	54.5	53.7	53.1	51.3	49.8	48.1	47.9	47.6	50.6	0.0	50.6
	17	51.7	57.4	47.8	57.1	56.6	55.8	55.2	52.6	50.2	48.5	48.2	47.9	51.7	0.0	51.7
	18	50.8	56.4	47.5	56.0	55.7	55.0	54.2	51.5	49.4	48.0	47.8	47.6	50.8	0.0	50.8
	19	50.3	54.9	47.1	54.6	54.3	53.6	53.1	51.3	49.1	47.6	47.4	47.2	50.3	5.0	55.3
	20	51.1	57.4	45.1	57.1	56.9	56.5	55.9	51.9	48.8	45.8	45.5	45.2	51.1	5.0	56.1
	21	46.5	51.8	42.2	51.4	51.1	50.3	49.7	47.6	45.3	42.9	42.6	42.4	46.5	5.0	51.5
Night	22	44.0	49.3	40.3	48.9	48.5	47.8	47.2	44.9	42.5	40.8	40.6	40.4	44.0	10.0	54.0
	23	42.6	47.6	38.6	47.3	47.0	46.4	46.0	44.0	40.8	39.1	38.9	38.7	42.6	10.0	52.6

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	46.5	51.8	42.2	51.4	51.1	50.3	49.7	47.6	45.3	42.9	42.6	42.4
	Max	51.7	69.7	48.9	68.2	67.1	63.6	61.9	57.3	53.8	50.2	49.8	49.3
Energy Average		49.9	Average:		55.9	55.4	54.3	53.5	50.8	48.5	46.5	46.2	45.9
Night	Min	33.5	36.4	32.4	36.1	35.8	35.2	34.7	33.7	33.2	32.7	32.6	32.5
	Max	47.8	53.7	43.0	53.3	53.0	51.9	51.5	48.6	46.3	44.0	43.6	43.2
Energy Average		42.4	Average:		44.5	44.1	43.2	42.5	40.7	39.1	37.6	37.4	37.1

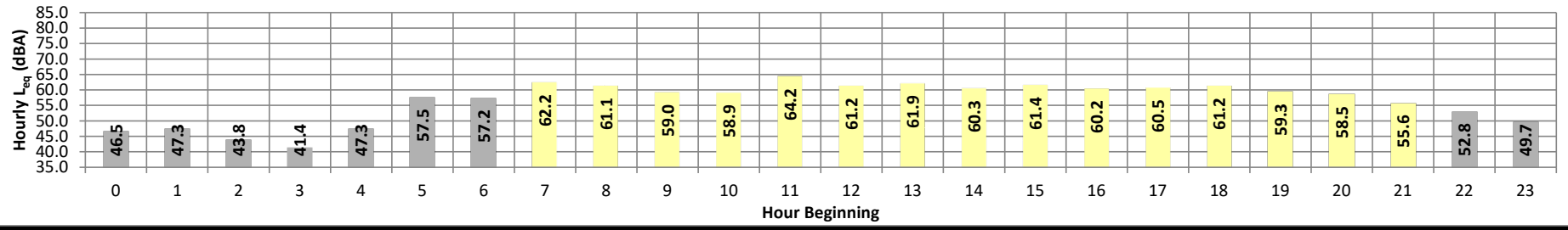
L_{eq} (dBA)		
24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
48.3	**49.9**	**42.4**

24-Hour Noise Level Measurement Summary

Date: Monday, May 23, 2022 | *Location:* L2 - Located east of the Project site near single-family | *Meter:* Piccolo II | *JN:* 14501

Project: 4665 Lampson | *Source:* residence at 5001 Lunar Drive. | *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	46.5	56.8	40.3	56.5	56.0	53.7	50.9	44.4	42.2	40.9	40.7	40.4	46.5	10.0	56.5
	1	47.3	58.0	40.7	57.8	57.1	55.0	51.8	44.7	43.0	41.4	41.1	40.8	47.3	10.0	57.3
	2	43.8	54.9	36.1	54.5	54.0	51.5	48.6	40.9	37.9	36.6	36.4	36.2	43.8	10.0	53.8
	3	41.4	52.5	34.8	52.1	51.6	49.3	46.3	37.7	36.0	35.2	35.0	34.8	41.4	10.0	51.4
	4	47.3	58.8	36.9	58.4	57.8	55.2	52.8	43.8	39.2	37.2	37.1	36.9	47.3	10.0	57.3
	5	57.5	65.6	45.8	65.3	64.9	63.5	62.3	58.9	54.6	48.6	47.6	46.1	57.5	10.0	67.5
	6	57.2	66.5	47.6	66.2	65.6	63.6	62.1	57.2	53.3	48.7	48.2	47.7	57.2	10.0	67.2
Day	7	62.2	73.6	48.8	73.2	72.5	69.2	66.6	61.1	56.9	50.6	49.6	48.9	62.2	0.0	62.2
	8	61.1	71.2	49.8	70.6	69.9	67.5	65.6	61.0	57.7	51.5	50.6	50.0	61.1	0.0	61.1
	9	59.0	68.2	49.5	67.7	67.0	65.1	63.6	59.5	55.6	50.5	50.0	49.6	59.0	0.0	59.0
	10	58.9	66.8	51.3	66.6	66.1	64.2	63.0	59.7	56.5	52.4	51.8	51.4	58.9	0.0	58.9
	11	64.2	77.3	52.1	76.9	75.7	71.4	67.6	61.0	57.3	53.1	52.6	52.2	64.2	0.0	64.2
	12	61.2	72.4	52.5	71.2	69.9	67.7	66.4	62.1	58.9	54.5	53.5	52.8	61.2	0.0	61.2
	13	61.9	72.9	48.8	72.3	71.7	69.1	66.6	60.6	56.4	50.3	49.6	49.0	61.9	0.0	61.9
	14	60.3	69.6	50.3	69.0	68.2	66.3	64.4	60.8	57.7	52.2	51.1	50.5	60.3	0.0	60.3
	15	61.4	70.7	51.1	70.2	69.5	67.5	65.9	61.5	58.4	52.6	51.8	51.2	61.4	0.0	61.4
	16	60.2	67.8	52.6	67.5	66.9	65.3	64.0	61.1	58.4	54.0	53.4	52.8	60.2	0.0	60.2
	17	60.5	67.9	53.0	67.5	67.0	65.2	64.1	61.4	58.9	54.5	53.8	53.2	60.5	0.0	60.5
	18	61.2	71.0	53.3	70.4	69.8	67.0	64.7	61.1	58.3	54.5	54.0	53.4	61.2	0.0	61.2
	19	59.3	66.3	53.7	66.0	65.5	64.1	63.0	60.2	57.6	54.6	54.2	53.8	59.3	5.0	64.3
	20	58.5	66.8	51.9	66.4	65.7	63.8	62.4	59.1	55.9	52.9	52.4	52.0	58.5	5.0	63.5
	21	55.6	63.3	49.0	63.0	62.5	61.1	60.0	56.3	53.0	49.8	49.4	49.1	55.6	5.0	60.6
Night	22	52.8	61.9	45.8	61.5	61.1	59.0	57.5	52.8	49.1	46.4	46.1	45.9	52.8	10.0	62.8
	23	49.7	59.2	43.2	58.9	58.4	56.2	54.3	48.9	45.9	43.8	43.6	43.3	49.7	10.0	59.7

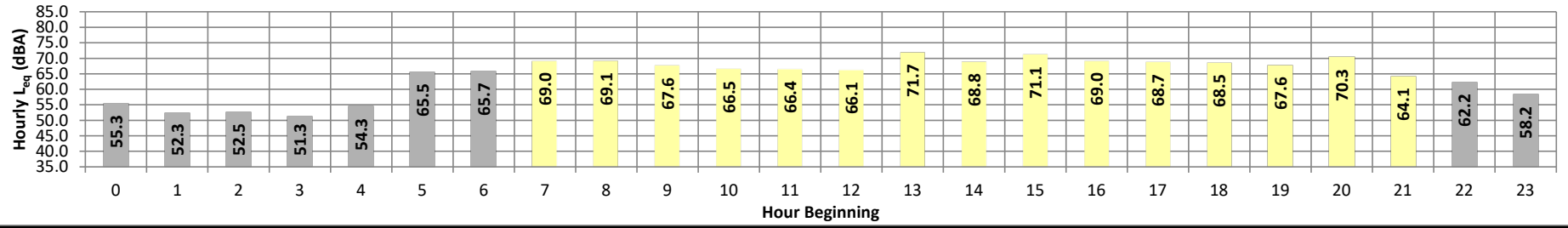
Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	55.6	63.3	48.8	63.0	62.5	61.1	60.0	56.3	53.0	49.8	49.4	48.9
	Max	64.2	77.3	53.7	76.9	75.7	71.4	67.6	62.1	58.9	54.6	54.2	53.8
Energy Average		60.8	Average:		69.2	68.5	66.3	64.5	60.4	57.2	52.5	51.9	51.3
Night	Min	41.4	52.5	34.8	52.1	51.6	49.3	46.3	37.7	36.0	35.2	35.0	34.8
	Max	57.5	66.5	47.6	66.2	65.6	63.6	62.3	58.9	54.6	48.7	48.2	47.7
Energy Average		52.4	Average:		59.0	58.5	56.3	54.1	47.7	44.6	42.1	41.7	41.3

L_{eq} (dBA)		
24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
59.1	**60.8**	**52.4**

24-Hour Noise Level Measurement Summary

Date: Monday, May 23, 2022 *Location:* L3 - Located southwest of the Project site near single-family *Meter:* Piccolo II *JN:* 14501
Project: 4665 Lampson *Source:* residence at 4701 Ironwood Avenue. *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	55.3	68.3	43.2	67.9	66.9	63.4	60.1	48.4	44.8	43.5	43.4	43.2	55.3	10.0	65.3
	1	52.3	65.0	43.2	64.5	63.7	60.5	57.0	46.1	44.6	43.6	43.4	43.3	52.3	10.0	62.3
	2	52.5	65.7	38.6	65.3	64.3	60.5	57.1	45.1	40.4	39.0	38.9	38.7	52.5	10.0	62.5
	3	51.3	64.6	38.4	64.2	63.2	59.8	56.0	42.7	39.4	38.6	38.5	38.4	51.3	10.0	61.3
	4	54.3	67.2	39.4	66.7	65.8	62.4	59.4	48.5	42.1	39.8	39.7	39.5	54.3	10.0	64.3
	5	65.5	77.0	48.8	76.6	75.8	73.1	70.8	63.5	58.0	50.3	49.5	49.0	65.5	10.0	75.5
	6	65.7	76.6	53.4	76.0	75.0	72.1	70.5	65.4	60.5	55.1	54.3	53.6	65.7	10.0	75.7
Day	7	69.0	78.6	53.1	78.1	77.4	75.3	74.1	69.4	64.9	56.5	54.8	53.3	69.0	0.0	69.0
	8	69.1	78.6	53.0	78.2	77.5	75.6	74.2	69.6	64.4	55.8	54.4	53.3	69.1	0.0	69.1
	9	67.6	77.2	52.1	76.8	76.1	74.2	72.8	67.9	62.9	54.0	52.9	52.2	67.6	0.0	67.6
	10	66.5	76.1	52.9	75.6	74.8	72.9	71.5	67.0	62.0	54.6	53.8	53.1	66.5	0.0	66.5
	11	66.4	76.3	52.4	75.9	75.1	72.7	71.2	66.9	61.7	54.0	53.2	52.5	66.4	0.0	66.4
	12	66.1	75.5	53.8	74.9	74.1	72.2	71.2	66.6	62.2	55.8	54.9	54.0	66.1	0.0	66.1
	13	71.7	84.6	51.7	83.7	82.2	79.3	76.9	69.4	63.7	54.1	52.9	51.9	71.7	0.0	71.7
	14	68.8	77.9	53.2	77.4	76.6	74.8	73.6	69.7	65.1	56.3	54.8	53.5	68.8	0.0	68.8
	15	71.1	82.3	53.7	81.5	80.6	77.8	75.9	70.7	65.9	56.9	55.5	54.0	71.1	0.0	71.1
	16	69.0	78.4	53.8	77.9	77.3	75.3	73.8	69.5	65.0	56.7	55.2	54.0	69.0	0.0	69.0
	17	68.7	77.8	53.7	77.4	76.7	74.7	73.4	69.6	64.8	56.2	55.2	54.0	68.7	0.0	68.7
	18	68.5	77.0	53.1	76.6	75.9	74.6	73.7	69.7	64.1	55.5	54.3	53.2	68.5	0.0	68.5
	19	67.6	77.0	53.2	76.4	75.8	73.9	72.9	68.5	62.5	54.8	53.9	53.3	67.6	5.0	72.6
	20	70.3	84.0	51.9	83.1	81.6	76.7	73.7	67.9	62.0	53.7	52.5	52.0	70.3	5.0	75.3
	21	64.1	74.7	48.9	74.2	73.4	71.4	69.9	63.4	57.1	50.4	49.8	49.1	64.1	5.0	69.1
Night	22	62.2	73.9	46.5	73.4	72.5	69.7	67.9	60.2	52.3	47.2	46.9	46.6	62.2	10.0	72.2
	23	58.2	70.9	44.5	70.4	69.4	66.1	63.1	54.2	48.4	45.0	44.8	44.6	58.2	10.0	68.2

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	64.1	74.7	48.9	74.2	73.4	71.4	69.9	63.4	57.1	50.4	49.8	49.1
	Max	71.7	84.6	53.8	83.7	82.2	79.3	76.9	70.7	65.9	56.9	55.5	54.0
Energy Average		68.7	Average:		77.8	77.0	74.8	73.3	68.4	63.2	55.0	53.9	52.9
Night	Min	51.3	64.6	38.4	64.2	63.2	59.8	56.0	42.7	39.4	38.6	38.5	38.4
	Max	65.7	77.0	53.4	76.6	75.8	73.1	70.8	65.4	60.5	55.1	54.3	53.6
Energy Average		60.7	Average:		69.4	68.5	65.3	62.4	52.7	47.8	44.7	44.4	44.1

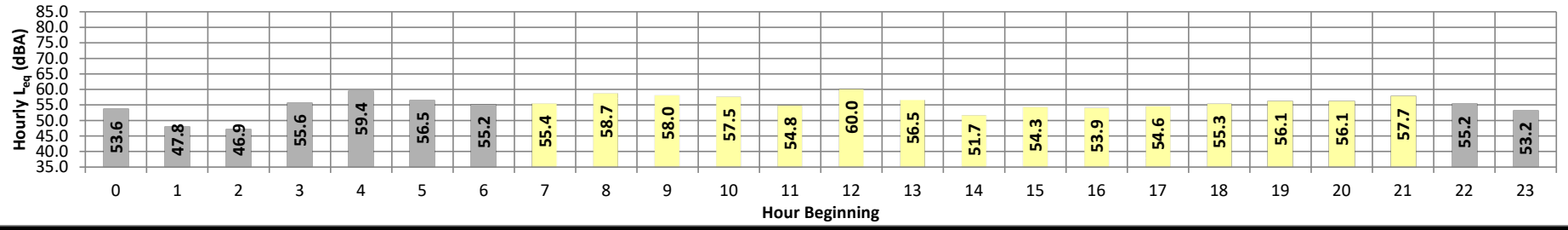
L_{eq} (dBA)		
24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
67.0	**68.7**	**60.7**

24-Hour Noise Level Measurement Summary

Date: Monday, May 23, 2022 *Location:* L4 - Located west of the Project site near Old Ranch Country Club Golf Course at 3901 Lampson Avenue. *Meter:* Piccolo II *JN:* 14501

Project: 4665 Lampson *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	53.6	59.0	49.7	58.7	58.5	57.8	57.1	54.9	51.8	50.3	49.9	49.8	53.6	10.0	63.6
	1	47.8	51.0	45.7	50.7	50.4	49.9	49.4	48.3	47.5	46.3	46.1	45.9	47.8	10.0	57.8
	2	46.9	50.5	44.7	50.1	49.5	48.8	48.4	47.5	46.7	45.4	45.2	44.9	46.9	10.0	56.9
	3	55.6	65.8	44.1	65.3	64.4	62.4	61.0	54.9	51.5	44.8	44.5	44.2	55.6	10.0	65.6
	4	59.4	69.3	46.1	68.7	68.2	66.8	65.4	58.7	52.6	47.1	46.5	46.3	59.4	10.0	69.4
	5	56.5	67.3	51.7	66.6	65.3	62.3	59.4	55.9	53.3	52.1	52.0	51.8	56.5	10.0	66.5
	6	55.2	63.9	50.7	62.9	61.8	60.1	58.0	55.2	53.5	51.6	51.2	50.8	55.2	10.0	65.2
Day	7	55.4	66.7	47.4	65.8	64.3	61.1	59.8	54.7	51.0	48.2	47.9	47.6	55.4	0.0	55.4
	8	58.7	69.4	49.0	69.0	68.4	66.2	63.9	56.8	52.9	50.1	49.6	49.2	58.7	0.0	58.7
	9	58.0	66.1	54.4	65.6	65.0	63.4	61.7	57.5	55.9	54.8	54.7	54.5	58.0	0.0	58.0
	10	57.5	68.6	51.7	67.5	66.1	63.2	61.1	56.7	54.3	52.3	52.1	51.8	57.5	0.0	57.5
	11	54.8	62.9	51.6	62.1	61.3	59.3	57.8	54.7	53.2	52.1	51.9	51.7	54.8	0.0	54.8
	12	60.0	69.6	52.7	68.9	67.9	66.1	64.1	59.4	57.7	54.2	53.7	53.1	60.0	0.0	60.0
	13	56.5	67.3	49.6	66.4	65.4	62.3	60.1	56.0	53.7	50.4	50.0	49.7	56.5	0.0	56.5
	14	51.7	58.9	49.1	58.1	57.2	55.3	53.9	51.7	50.6	49.6	49.4	49.2	51.7	0.0	51.7
	15	54.3	59.8	50.5	59.5	59.1	58.2	57.5	55.2	52.8	51.0	50.8	50.6	54.3	0.0	54.3
	16	53.9	60.6	51.3	60.1	59.6	57.5	56.0	54.0	52.9	51.9	51.6	51.4	53.9	0.0	53.9
	17	54.6	59.5	52.0	59.0	58.7	57.9	57.0	54.9	53.7	52.5	52.3	52.1	54.6	0.0	54.6
	18	55.3	62.1	52.4	61.8	61.6	59.9	58.4	54.9	53.8	52.9	52.7	52.5	55.3	0.0	55.3
	19	56.1	63.0	53.1	62.6	61.9	60.3	59.0	56.2	54.7	53.7	53.5	53.2	56.1	5.0	61.1
	20	56.1	63.5	52.1	63.2	62.7	61.3	59.7	56.0	54.5	52.8	52.5	52.2	56.1	5.0	61.1
	21	57.7	65.3	52.1	65.0	64.4	62.7	61.1	58.4	56.1	52.7	52.5	52.2	57.7	5.0	62.7
Night	22	55.2	59.8	52.8	59.5	59.1	58.5	58.1	55.8	54.1	53.1	53.0	52.8	55.2	10.0	65.2
	23	53.2	61.8	48.5	60.9	59.8	57.5	56.0	53.3	51.4	50.0	49.7	48.7	53.2	10.0	63.2

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	51.7	58.9	47.4	58.1	57.2	55.3	53.9	51.7	50.6	48.2	47.9	47.6
	Max	60.0	69.6	54.4	69.0	68.4	66.2	64.1	59.4	57.7	54.8	54.7	54.5
Energy Average		56.5	Average:		63.6	62.9	61.0	59.4	55.8	53.9	51.9	51.7	51.4
Night	Min	46.9	50.5	44.1	50.1	49.5	48.8	48.4	47.5	46.7	44.8	44.5	44.2
	Max	59.4	69.3	52.8	68.7	68.2	66.8	65.4	58.7	54.1	53.1	53.0	52.8
Energy Average		55.1	Average:		60.4	59.7	58.2	57.0	53.8	51.4	49.0	48.7	48.3

L_{eq} (dBA)		
24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
56.0	**56.5**	**55.1**

APPENDIX 6.1:

SITE PLAN

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PARKING DATA

For Sale
Parking Provided:

Garages (2 cars each)	338 spaces
(D) Driveways (1&2 cars each)	55 spaces
(P) Open Parking	64 spaces
Total Parking Provided	457 spaces (2.70 sp/unit)
(MC) Motor Cycle Parking	4 spaces

For Rent
Parking Provided:

Garages (1 car each)	30 spaces
Open Parking	69 spaces
Total Parking Provided	99 spaces (1.27 sp/unit)

ktgy

Architecture + Planning
17911 Von Karman Ave,
Suite 200
Irvine, CA 92614
949.851.2133
ktgy.com

MW INVESTMENT GROUP

MJW INVESTMENTS, LLC
27702 Crown Valley Parkway
Suite D-4-197
Ladera Ranch, CA 92694

LAMPSON - LOS ALAMITOS
LOS ALAMITOS, CA # 2021-0812

SCHEMATIC DESIGN

Plot Date:	11.11.2022
Pre-App Submittal:	01.28.2022
1st Planning Submittal:	06.30.2022
2nd Planning Submittal:	10.10.2022

0 25 50 100

PARKING

A1.10

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APPENDIX 7.1:

ON-SITE TRAFFIC NOISE LEVEL CALCULATIONS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Backyard No Wall
Road Name: Lampson Avenue
Lot No: Apartments

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	57.0	feet
Barrier Distance to Observer:	5.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	25.534
Medium Trucks:	25.185
Heavy Trucks:	25.220

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	4.27	-1.20	*-1.67*	0.000	0.000
Medium Trucks:	77.62	-17.39	4.36	-1.20	*-2.01*	0.000	0.000
Heavy Trucks:	82.14	-21.34	4.36	-1.20	*-2.96*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.3	70.4	68.6	62.6	71.2	71.8
Medium Trucks:	63.4	61.9	55.5	54.0	62.4	62.7
Heavy Trucks:	64.0	62.5	53.5	54.7	63.1	63.2
Vehicle Noise:	73.3	71.5	68.9	63.7	72.3	72.8

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.3	70.4	68.6	62.6	71.2	71.8
Medium Trucks:	63.4	61.9	55.5	54.0	62.4	62.7
Heavy Trucks:	64.0	62.5	53.5	54.7	63.1	63.2
Vehicle Noise:	73.3	71.5	68.9	63.7	72.3	72.8

Wednesday, February 15, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Backyard No Wall
Road Name: Lampson Avenue
Lot No: Single Family

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	57.0	feet
Barrier Distance to Observer:	5.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	25.534
Medium Trucks:	25.185
Heavy Trucks:	25.220

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	4.27	-1.20	*-1.67*	0.000	0.000
Medium Trucks:	77.62	-17.39	4.36	-1.20	*-2.01*	0.000	0.000
Heavy Trucks:	82.14	-21.34	4.36	-1.20	*-2.96*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.3	70.4	68.6	62.6	71.2	71.8
Medium Trucks:	63.4	61.9	55.5	54.0	62.4	62.7
Heavy Trucks:	64.0	62.5	53.5	54.7	63.1	63.2
Vehicle Noise:	73.3	71.5	68.9	63.7	72.3	72.8

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.3	70.4	68.6	62.6	71.2	71.8
Medium Trucks:	63.4	61.9	55.5	54.0	62.4	62.7
Heavy Trucks:	64.0	62.5	53.5	54.7	63.1	63.2
Vehicle Noise:	73.3	71.5	68.9	63.7	72.3	72.8

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Backyard No Wall
Road Name: Lampson Avenue
Lot No: Park

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	120.0	feet
Barrier Distance to Observer:	68.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	94.366
Medium Trucks:	94.273
Heavy Trucks:	94.282

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	-4.24	-1.20	*-0.05*	0.000	0.000
Medium Trucks:	77.62	-17.39	-4.23	-1.20	*-0.23*	0.000	0.000
Heavy Trucks:	82.14	-21.34	-4.24	-1.20	*-1.20*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	63.8	61.9	60.1	54.0	62.7	63.3
Medium Trucks:	54.8	53.3	46.9	45.4	53.8	54.1
Heavy Trucks:	55.4	53.9	44.9	46.2	54.5	54.6
Vehicle Noise:	64.8	63.0	60.4	55.2	63.7	64.3

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	63.8	61.9	60.1	54.0	62.7	63.3
Medium Trucks:	54.8	53.3	46.9	45.4	53.8	54.1
Heavy Trucks:	55.4	53.9	44.9	46.2	54.5	54.6
Vehicle Noise:	64.8	63.0	60.4	55.2	63.7	64.3

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Backyard With Wall
Road Name: Lampson Avenue
Lot No: Apartments

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	57.0	feet
Barrier Distance to Observer:	5.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	23.754
Medium Trucks:	23.147
Heavy Trucks:	22.876

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	4.75	-1.20	*0.34*	-7.700	-10.700
Medium Trucks:	77.62	-17.39	4.91	-1.20	*0.22*	-6.940	-9.940
Heavy Trucks:	82.14	-21.34	4.99	-1.20	*0.03*	-5.300	-8.300

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.7	70.8	69.1	63.0	71.6	72.3
Medium Trucks:	64.0	62.4	56.1	54.5	63.0	63.2
Heavy Trucks:	64.6	63.2	54.1	55.4	63.7	63.9
Vehicle Noise:	73.8	72.0	69.4	64.2	72.8	73.3

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.0	63.1	61.4	55.3	63.9	64.6
Medium Trucks:	57.0	55.5	49.1	47.6	56.1	56.3
Heavy Trucks:	59.3	57.9	48.8	50.1	58.4	58.6
Vehicle Noise:	66.6	64.8	61.9	57.0	65.5	66.0

Wednesday, February 15, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Backyard With Wall
Road Name: Lampson Avenue
Lot No: Single Family

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	57.0	feet
Barrier Distance to Observer:	5.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	23.754
Medium Trucks:	23.147
Heavy Trucks:	22.876

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	4.75	-1.20	*0.34*	-7.700	-10.700
Medium Trucks:	77.62	-17.39	4.91	-1.20	*0.22*	-6.940	-9.940
Heavy Trucks:	82.14	-21.34	4.99	-1.20	*0.03*	-5.300	-8.300

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.7	70.8	69.1	63.0	71.6	72.3
Medium Trucks:	64.0	62.4	56.1	54.5	63.0	63.2
Heavy Trucks:	64.6	63.2	54.1	55.4	63.7	63.9
Vehicle Noise:	73.8	72.0	69.4	64.2	72.8	73.3

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.0	63.1	61.4	55.3	63.9	64.6
Medium Trucks:	57.0	55.5	49.1	47.6	56.1	56.3
Heavy Trucks:	59.3	57.9	48.8	50.1	58.4	58.6
Vehicle Noise:	66.6	64.8	61.9	57.0	65.5	66.0

Wednesday, February 15, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Backyard With Wall
Road Name: Lampson Avenue
Lot No: Park

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	120.0	feet
Barrier Distance to Observer:	68.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	86.662
Medium Trucks:	86.055
Heavy Trucks:	94.282

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	-3.69	-1.20	*0.48*	-8.400	-11.400
Medium Trucks:	77.62	-17.39	-3.64	-1.20	*0.20*	-6.800	-9.800
Heavy Trucks:	82.14	-21.34	-4.24	-1.20	*-0.03*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.3	62.4	60.6	54.6	63.2	63.8
Medium Trucks:	55.4	53.9	47.5	46.0	54.4	54.7
Heavy Trucks:	55.4	53.9	44.9	46.2	54.5	54.6
Vehicle Noise:	65.3	63.5	61.0	55.7	64.2	64.8

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	55.9	54.0	52.2	46.2	54.8	55.4
Medium Trucks:	48.6	47.1	40.7	39.2	47.6	47.9
Heavy Trucks:	55.4	53.9	44.9	46.2	54.5	54.6
Vehicle Noise:	59.1	57.4	53.2	49.6	58.1	58.5

Wednesday, February 15, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: First Floor With Wall
Road Name: Lampson Avenue
Lot No: Apartments

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	60.0	feet
Barrier Distance to Observer:	8.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	26.717
Medium Trucks:	26.110
Heavy Trucks:	25.839

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	3.98	-1.20	*0.33*	-7.650	-10.650
Medium Trucks:	77.62	-17.39	4.13	-1.20	*0.19*	-6.720	-9.720
Heavy Trucks:	82.14	-21.34	4.20	-1.20	*0.01*	-5.100	-8.100

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.0	70.1	68.3	62.3	70.9	71.5
Medium Trucks:	63.2	61.7	55.3	53.8	62.2	62.4
Heavy Trucks:	63.8	62.4	53.3	54.6	62.9	63.1
Vehicle Noise:	73.1	71.3	68.7	63.4	72.0	72.5

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.3	62.4	60.7	54.6	63.2	63.8
Medium Trucks:	56.4	54.9	48.6	47.0	55.5	55.7
Heavy Trucks:	58.7	57.3	48.2	49.5	57.8	58.0
Vehicle Noise:	65.9	64.1	61.2	56.3	64.9	65.3

Wednesday, February 15, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: First Floor With Wall
Road Name: Lampson Avenue
Lot No: Single Family

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	60.0	feet
Barrier Distance to Observer:	8.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	26.717
Medium Trucks:	26.110
Heavy Trucks:	25.839

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	3.98	-1.20	*0.33*	-7.650	-10.650
Medium Trucks:	77.62	-17.39	4.13	-1.20	*0.19*	-6.720	-9.720
Heavy Trucks:	82.14	-21.34	4.20	-1.20	*0.01*	-5.100	-8.100

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.0	70.1	68.3	62.3	70.9	71.5
Medium Trucks:	63.2	61.7	55.3	53.8	62.2	62.4
Heavy Trucks:	63.8	62.4	53.3	54.6	62.9	63.1
Vehicle Noise:	73.1	71.3	68.7	63.4	72.0	72.5

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.3	62.4	60.7	54.6	63.2	63.8
Medium Trucks:	56.4	54.9	48.6	47.0	55.5	55.7
Heavy Trucks:	58.7	57.3	48.2	49.5	57.8	58.0
Vehicle Noise:	65.9	64.1	61.2	56.3	64.9	65.3

Wednesday, February 15, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: First Floor With Wall
Road Name: Lampson Avenue
Lot No: Park

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	120.0	feet
Barrier Distance to Observer:	68.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	86.662
Medium Trucks:	86.055
Heavy Trucks:	94.282

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	-3.69	-1.20	*0.48*	-8.400	-11.400
Medium Trucks:	77.62	-17.39	-3.64	-1.20	*0.20*	-6.800	-9.800
Heavy Trucks:	82.14	-21.34	-4.24	-1.20	*-0.03*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.3	62.4	60.6	54.6	63.2	63.8
Medium Trucks:	55.4	53.9	47.5	46.0	54.4	54.7
Heavy Trucks:	55.4	53.9	44.9	46.2	54.5	54.6
Vehicle Noise:	65.3	63.5	61.0	55.7	64.2	64.8

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	55.9	54.0	52.2	46.2	54.8	55.4
Medium Trucks:	48.6	47.1	40.7	39.2	47.6	47.9
Heavy Trucks:	55.4	53.9	44.9	46.2	54.5	54.6
Vehicle Noise:	59.1	57.4	53.2	49.6	58.1	58.5

Wednesday, February 15, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Fourth Floor With Wall
Road Name: Lampson Avenue
Lot No: Apartments

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,515 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**6.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	52.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	8.0 feet
Observer Height (Above Pad):	32.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Barrier Elevation:	0.0 feet
Road Grade:	1.0%

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	43.174
Medium Trucks:	41.500
Heavy Trucks:	37.626

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	0.85	-1.20	*-7.73*	0.000	0.000
Medium Trucks:	77.62	-17.39	1.11	-1.20	*-8.80*	0.000	0.000
Heavy Trucks:	82.14	-21.34	1.75	-1.20	*-11.91*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.0	65.2	59.1	67.8	68.4
Medium Trucks:	60.1	58.6	52.3	50.7	59.2	59.4
Heavy Trucks:	61.3	59.9	50.9	52.1	60.5	60.6
Vehicle Noise:	70.0	68.2	65.6	60.4	69.0	69.5

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.0	65.2	59.1	67.8	68.4
Medium Trucks:	60.1	58.6	52.3	50.7	59.2	59.4
Heavy Trucks:	61.3	59.9	50.9	52.1	60.5	60.6
Vehicle Noise:	70.0	68.2	65.6	60.4	69.0	69.5

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Fourth Floor With Wall
Road Name: Lampson Avenue
Lot No: Single Family

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	60.0	feet
Barrier Distance to Observer:	8.0	feet
Observer Height (Above Pad):	32.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	43.174
Medium Trucks:	41.500
Heavy Trucks:	37.626

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	0.85	-1.20	*-7.73*	0.000	0.000
Medium Trucks:	77.62	-17.39	1.11	-1.20	*-8.80*	0.000	0.000
Heavy Trucks:	82.14	-21.34	1.75	-1.20	*-11.91*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.0	65.2	59.1	67.8	68.4
Medium Trucks:	60.1	58.6	52.3	50.7	59.2	59.4
Heavy Trucks:	61.3	59.9	50.9	52.1	60.5	60.6
Vehicle Noise:	70.0	68.2	65.6	60.4	69.0	69.5

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.0	65.2	59.1	67.8	68.4
Medium Trucks:	60.1	58.6	52.3	50.7	59.2	59.4
Heavy Trucks:	61.3	59.9	50.9	52.1	60.5	60.6
Vehicle Noise:	70.0	68.2	65.6	60.4	69.0	69.5

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Fourth Floor With Wall
Road Name: Lampson Avenue
Lot No: Park

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	120.0	feet
Barrier Distance to Observer:	68.0	feet
Observer Height (Above Pad):	32.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	99.519
Medium Trucks:	98.804
Heavy Trucks:	97.240

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	-4.59	-1.20	*-0.27*	0.000	0.000
Medium Trucks:	77.62	-17.39	-4.54	-1.20	*-0.58*	0.000	0.000
Heavy Trucks:	82.14	-21.34	-4.44	-1.20	*-1.90*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	63.4	61.5	59.7	53.7	62.3	62.9
Medium Trucks:	54.5	53.0	46.6	45.1	53.5	53.8
Heavy Trucks:	55.2	53.7	44.7	46.0	54.3	54.4
Vehicle Noise:	64.5	62.7	60.1	54.9	63.4	63.9

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	63.4	61.5	59.7	53.7	62.3	62.9
Medium Trucks:	54.5	53.0	46.6	45.1	53.5	53.8
Heavy Trucks:	55.2	53.7	44.7	46.0	54.3	54.4
Vehicle Noise:	64.5	62.7	60.1	54.9	63.4	63.9

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Second Floor With Wall
Road Name: Lampson Avenue
Lot No: Apartments

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150 vehicles
Peak Hour Percentage:	10%
Peak Hour Volume:	1,515 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**6.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	52.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	8.0 feet
Observer Height (Above Pad):	14.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Barrier Elevation:	0.0 feet
Road Grade:	1.0%

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	32.187
Medium Trucks:	31.256
Heavy Trucks:	29.596

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	2.77	-1.20	*-1.34*	0.000	0.000
Medium Trucks:	77.62	-17.39	2.96	-1.20	*-1.70*	0.000	0.000
Heavy Trucks:	82.14	-21.34	3.31	-1.20	*-2.84*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.8	68.9	67.1	61.0	69.7	70.3
Medium Trucks:	62.0	60.5	54.1	52.6	61.0	61.3
Heavy Trucks:	62.9	61.5	52.5	53.7	62.1	62.2
Vehicle Noise:	71.9	70.1	67.5	62.3	70.8	71.3

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.8	68.9	67.1	61.0	69.7	70.3
Medium Trucks:	62.0	60.5	54.1	52.6	61.0	61.3
Heavy Trucks:	62.9	61.5	52.5	53.7	62.1	62.2
Vehicle Noise:	71.9	70.1	67.5	62.3	70.8	71.3

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Second Floor With Wall
Road Name: Lampson Avenue
Lot No: Single Family

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	60.0	feet
Barrier Distance to Observer:	8.0	feet
Observer Height (Above Pad):	14.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	32.187
Medium Trucks:	31.256
Heavy Trucks:	29.596

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	2.77	-1.20	*-1.34*	0.000	0.000
Medium Trucks:	77.62	-17.39	2.96	-1.20	*-1.70*	0.000	0.000
Heavy Trucks:	82.14	-21.34	3.31	-1.20	*-2.84*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.8	68.9	67.1	61.0	69.7	70.3
Medium Trucks:	62.0	60.5	54.1	52.6	61.0	61.3
Heavy Trucks:	62.9	61.5	52.5	53.7	62.1	62.2
Vehicle Noise:	71.9	70.1	67.5	62.3	70.8	71.3

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.8	68.9	67.1	61.0	69.7	70.3
Medium Trucks:	62.0	60.5	54.1	52.6	61.0	61.3
Heavy Trucks:	62.9	61.5	52.5	53.7	62.1	62.2
Vehicle Noise:	71.9	70.1	67.5	62.3	70.8	71.3

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Second Floor With Wall
Road Name: Lampson Avenue
Lot No: Park

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	120.0	feet
Barrier Distance to Observer:	68.0	feet
Observer Height (Above Pad):	14.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	87.124
Medium Trucks:	86.516
Heavy Trucks:	94.424

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	-3.72	-1.20	*0.08*	-5.800	-8.800
Medium Trucks:	77.62	-17.39	-3.68	-1.20	*0.00*	-4.900	-7.900
Heavy Trucks:	82.14	-21.34	-4.25	-1.20	*-0.35*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.3	62.4	60.6	54.6	63.2	63.8
Medium Trucks:	55.4	53.9	47.5	45.9	54.4	54.6
Heavy Trucks:	55.4	53.9	44.9	46.1	54.5	54.6
Vehicle Noise:	65.3	63.5	60.9	55.6	64.2	64.7

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	58.5	56.6	54.8	48.8	57.4	58.0
Medium Trucks:	50.5	49.0	42.6	41.0	49.5	49.7
Heavy Trucks:	55.4	53.9	44.9	46.1	54.5	54.6
Vehicle Noise:	60.6	58.9	55.5	51.1	59.6	60.1

Wednesday, February 15, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Third Floor With Wall
Road Name: Lampson Avenue
Lot No: Apartments

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	60.0	feet
Barrier Distance to Observer:	8.0	feet
Observer Height (Above Pad):	23.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	37.000
Medium Trucks:	35.618
Heavy Trucks:	32.632

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	1.86	-1.20	*-4.73*	0.000	0.000
Medium Trucks:	77.62	-17.39	2.11	-1.20	*-5.50*	0.000	0.000
Heavy Trucks:	82.14	-21.34	2.68	-1.20	*-7.76*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.9	68.0	66.2	60.1	68.8	69.4
Medium Trucks:	61.1	59.6	53.3	51.7	60.2	60.4
Heavy Trucks:	62.3	60.9	51.8	53.1	61.4	61.6
Vehicle Noise:	71.0	69.2	66.6	61.4	70.0	70.5

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.9	68.0	66.2	60.1	68.8	69.4
Medium Trucks:	61.1	59.6	53.3	51.7	60.2	60.4
Heavy Trucks:	62.3	60.9	51.8	53.1	61.4	61.6
Vehicle Noise:	71.0	69.2	66.6	61.4	70.0	70.5

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Third Floor With Wall
Road Name: Lampson Avenue
Lot No: Single Family

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	60.0	feet
Barrier Distance to Observer:	8.0	feet
Observer Height (Above Pad):	23.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	37.000
Medium Trucks:	35.618
Heavy Trucks:	32.632

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	1.86	-1.20	*-4.73*	0.000	0.000
Medium Trucks:	77.62	-17.39	2.11	-1.20	*-5.50*	0.000	0.000
Heavy Trucks:	82.14	-21.34	2.68	-1.20	*-7.76*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.9	68.0	66.2	60.1	68.8	69.4
Medium Trucks:	61.1	59.6	53.3	51.7	60.2	60.4
Heavy Trucks:	62.3	60.9	51.8	53.1	61.4	61.6
Vehicle Noise:	71.0	69.2	66.6	61.4	70.0	70.5

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.9	68.0	66.2	60.1	68.8	69.4
Medium Trucks:	61.1	59.6	53.3	51.7	60.2	60.4
Heavy Trucks:	62.3	60.9	51.8	53.1	61.4	61.6
Vehicle Noise:	71.0	69.2	66.6	61.4	70.0	70.5

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (CALVENO) - v10/31/19

Scenario: Third Floor With Wall
Road Name: Lampson Avenue
Lot No: Park

Project Name: 4665 Lampson Avenue
Job Number: 14501
Analyst: B. Maddux

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150	vehicles
Peak Hour Percentage:	10%	
Peak Hour Volume:	1,515	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**6.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	52.0	feet
Centerline Dist. to Observer:	120.0	feet
Barrier Distance to Observer:	68.0	feet
Observer Height (Above Pad):	23.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Barrier Elevation:	0.0	feet
Road Grade:	1.0%	

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.00		
Medium Trucks:	2.30		
Heavy Trucks:	8.01	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	97.000
Medium Trucks:	96.481
Heavy Trucks:	95.419

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	69.34	-0.15	-4.42	-1.20	*-0.02*	0.000	0.000
Medium Trucks:	77.62	-17.39	-4.39	-1.20	*-0.14*	0.000	0.000
Heavy Trucks:	82.14	-21.34	-4.31	-1.20	*-0.99*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	63.6	61.7	59.9	53.9	62.5	63.1
Medium Trucks:	54.7	53.1	46.8	45.2	53.7	53.9
Heavy Trucks:	55.3	53.9	44.8	46.1	54.4	54.6
Vehicle Noise:	64.6	62.8	60.2	55.0	63.6	64.1

Mitigated Noise Levels (with Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	63.6	61.7	59.9	53.9	62.5	63.1
Medium Trucks:	54.7	53.1	46.8	45.2	53.7	53.9
Heavy Trucks:	55.3	53.9	44.8	46.1	54.4	54.6
Vehicle Noise:	64.6	62.8	60.2	55.0	63.6	64.1

APPENDIX 8.1:

OFF-SITE TRANSPORTATION NOISE LEVEL CONTOURS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lampson Ave.
Road Segment: e/o Los Alamitos Blvd.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,350 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,431 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.39	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.63	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.59	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.4	68.4	66.6	60.6	69.2	69.8
Medium Trucks:	63.3	62.6	56.2	54.7	63.1	63.4
Heavy Trucks:	64.1	63.5	54.5	55.7	64.1	64.2
Vehicle Noise:	71.3	70.4	67.2	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	47	102	220	474
CNEL:	51	110	236	509

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lampson Ave.
Road Segment: e/o Old Ranch Plaza

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,550 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,365 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.60	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.84	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.79	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.2	68.2	66.4	60.4	69.0	69.6
Medium Trucks:	63.0	62.4	56.0	54.5	62.9	63.2
Heavy Trucks:	63.9	63.3	54.3	55.5	63.9	64.0
Vehicle Noise:	71.1	70.2	67.0	62.4	70.9	71.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	46	99	213	460
CNEL:	49	106	229	493

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lampson Ave.
Road Segment: e/o Basswood St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,150	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,085	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.60	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.84	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.79	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.2	67.2	65.4	59.4	68.0	68.6
Medium Trucks:	62.0	61.4	55.0	53.5	61.9	62.2
Heavy Trucks:	62.9	62.3	53.3	54.5	62.9	63.0
Vehicle Noise:	70.1	69.2	66.0	61.4	69.9	70.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	39	85	183	394
CNEL:	42	91	196	423

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lampson Ave.
Road Segment: e/o Candleberry St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,450 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	945 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.20	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.44	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.39	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.6	66.6	64.8	58.8	67.4	68.0
Medium Trucks:	61.4	60.8	54.4	52.9	61.3	61.6
Heavy Trucks:	62.3	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	69.5	68.6	65.4	60.8	69.3	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	36	77	167	359
CNEL:	39	83	179	386

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lampson Ave.
Road Segment: e/o Heather St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,650 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	961 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.12	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.36	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.32	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.7	66.7	64.9	58.8	67.5	68.1
Medium Trucks:	61.5	60.9	54.5	52.9	61.4	61.6
Heavy Trucks:	62.4	61.8	52.7	54.0	62.3	62.5
Vehicle Noise:	69.6	68.7	65.5	60.8	69.4	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	36	78	169	364
CNEL:	39	84	181	390

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lampson Ave.
Road Segment: e/o Driveway 1

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,450	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	945	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.20	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.44	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.39	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.6	66.6	64.8	58.8	67.4	68.0
Medium Trucks:	61.4	60.8	54.4	52.9	61.3	61.6
Heavy Trucks:	62.3	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	69.5	68.6	65.4	60.8	69.3	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	36	77	167	359
CNEL:	39	83	179	386

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lampson Ave.
Road Segment: e/o Driveway 2

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,450	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	945	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.20	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.44	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.39	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.6	66.6	64.8	58.8	67.4	68.0
Medium Trucks:	61.4	60.8	54.4	52.9	61.3	61.6
Heavy Trucks:	62.3	61.7	52.7	53.9	62.3	62.4
Vehicle Noise:	69.5	68.6	65.4	60.8	69.3	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	36	77	167	359
CNEL:	39	83	179	386

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lampson Ave.
Road Segment: e/o Rose St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,050 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	994 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.98	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.21	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.17	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.9	66.8	65.0	59.0	67.6	68.2
Medium Trucks:	61.7	61.0	54.6	53.1	61.6	61.8
Heavy Trucks:	62.5	61.9	52.9	54.1	62.5	62.6
Vehicle Noise:	69.7	68.8	65.7	61.0	69.5	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	37	80	173	372
CNEL:	40	86	185	399

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lampson Ave.
Road Segment: e/o Tulip St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,000 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,073 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.65	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.89	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.84	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.2	67.1	65.4	59.3	67.9	68.5
Medium Trucks:	62.0	61.3	55.0	53.4	61.9	62.1
Heavy Trucks:	62.8	62.3	53.2	54.5	62.8	63.0
Vehicle Noise:	70.0	69.1	66.0	61.3	69.9	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	39	84	182	391
CNEL:	42	90	195	420

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lampson Ave.
Road Segment: e/o Valley View St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,200 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	842 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.70	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.94	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.89	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.1	66.1	64.3	58.3	66.9	67.5
Medium Trucks:	60.9	60.3	53.9	52.4	60.8	61.1
Heavy Trucks:	61.8	61.2	52.2	53.4	61.8	61.9
Vehicle Noise:	69.0	68.1	64.9	60.3	68.8	69.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	33	72	154	333
CNEL:	36	77	166	357

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Los Alamitos Blvd.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	38,350	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	3,164	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	3.56	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-13.68	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-17.63	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.8	65.8	64.0	58.0	66.6	67.2
Medium Trucks:	60.8	60.2	53.8	52.2	60.7	60.9
Heavy Trucks:	62.1	61.6	52.5	53.8	62.1	62.3
Vehicle Noise:	68.9	68.0	64.7	60.1	68.7	69.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	60	128	276	595
CNEL:	64	137	296	637

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Los Alamitos Blvd.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	36,650 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	3,024 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	3.37	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-13.87	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-17.83	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.7	65.6	63.8	57.8	66.4	67.0
Medium Trucks:	60.6	60.0	53.6	52.0	60.5	60.7
Heavy Trucks:	62.0	61.4	52.3	53.6	61.9	62.1
Vehicle Noise:	68.7	67.8	64.5	59.9	68.5	68.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	58	124	268	578
CNEL:	62	133	287	618

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Valley View St.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	41,500 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	3,424 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	3.39	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-13.84	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-17.80	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.6	67.6	65.8	59.7	68.4	69.0
Medium Trucks:	62.4	61.7	55.4	53.8	62.3	62.5
Heavy Trucks:	63.2	62.7	53.6	54.9	63.2	63.3
Vehicle Noise:	70.5	69.6	66.4	61.7	70.3	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	76	164	353	761
CNEL:	82	176	379	817

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Valley View St.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	40,850	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	3,370	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	3.33	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-13.91	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-17.87	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.6	67.5	65.7	59.7	68.3	68.9
Medium Trucks:	62.3	61.6	55.3	53.7	62.2	62.4
Heavy Trucks:	63.2	62.6	53.5	54.8	63.2	63.3
Vehicle Noise:	70.4	69.5	66.3	61.7	70.2	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	75	162	350	753
CNEL:	81	174	375	808

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Lampson Ave.
Road Segment: e/o Los Alamitos Blvd.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	18,250 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,506 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.17	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.41	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.37	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.7	68.6	66.8	60.8	69.4	70.0
Medium Trucks:	63.5	62.8	56.4	54.9	63.4	63.6
Heavy Trucks:	64.3	63.7	54.7	55.9	64.3	64.4
Vehicle Noise:	71.5	70.6	67.5	62.8	71.3	71.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	49	106	228	491
CNEL:	53	113	244	526

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Lampson Ave.
Road Segment: e/o Old Ranch Plaza

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	17,450 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,440 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.37	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.61	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.56	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.5	68.4	66.6	60.6	69.2	69.8
Medium Trucks:	63.3	62.6	56.2	54.7	63.2	63.4
Heavy Trucks:	64.1	63.5	54.5	55.7	64.1	64.2
Vehicle Noise:	71.3	70.4	67.3	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	48	103	221	476
CNEL:	51	110	237	511

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Lampson Ave.
Road Segment: e/o Basswood St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,100 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,163 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.29	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.53	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.49	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.5	67.5	65.7	59.7	68.3	68.9
Medium Trucks:	62.4	61.7	55.3	53.8	62.2	62.5
Heavy Trucks:	63.2	62.6	53.6	54.8	63.2	63.3
Vehicle Noise:	70.4	69.5	66.3	61.7	70.2	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	41	89	192	413
CNEL:	44	95	206	443

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Lampson Ave.
Road Segment: e/o Candleberry St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,350 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,019 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.87	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.11	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.06	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.0	66.9	65.1	59.1	67.7	68.3
Medium Trucks:	61.8	61.1	54.7	53.2	61.7	61.9
Heavy Trucks:	62.6	62.0	53.0	54.2	62.6	62.7
Vehicle Noise:	69.8	68.9	65.8	61.1	69.6	70.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	81	175	378
CNEL:	41	87	188	406

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Lampson Ave.
Road Segment: e/o Heather St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,600 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,040 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.78	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.02	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.98	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.1	67.0	65.2	59.2	67.8	68.4
Medium Trucks:	61.9	61.2	54.8	53.3	61.7	62.0
Heavy Trucks:	62.7	62.1	53.1	54.3	62.7	62.8
Vehicle Noise:	69.9	69.0	65.8	61.2	69.7	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	83	178	383
CNEL:	41	89	191	411

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Lampson Ave.
Road Segment: e/o Driveway 1

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,350 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,019 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.87	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.11	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.06	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.0	66.9	65.1	59.1	67.7	68.3
Medium Trucks:	61.8	61.1	54.7	53.2	61.7	61.9
Heavy Trucks:	62.6	62.0	53.0	54.2	62.6	62.7
Vehicle Noise:	69.8	68.9	65.8	61.1	69.6	70.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	81	175	378
CNEL:	41	87	188	406

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Lampson Ave.
Road Segment: e/o Driveway 2

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,200 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,007 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.92	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.16	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.12	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.9	66.9	65.1	59.0	67.7	68.3
Medium Trucks:	61.7	61.1	54.7	53.1	61.6	61.8
Heavy Trucks:	62.6	62.0	52.9	54.2	62.5	62.7
Vehicle Noise:	69.8	68.9	65.7	61.0	69.6	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	81	174	375
CNEL:	40	87	187	402

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Lampson Ave.
Road Segment: e/o Rose St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,800 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,056 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.71	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.95	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.91	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.1	67.1	65.3	59.2	67.9	68.5
Medium Trucks:	61.9	61.3	54.9	53.4	61.8	62.0
Heavy Trucks:	62.8	62.2	53.2	54.4	62.8	62.9
Vehicle Noise:	70.0	69.1	65.9	61.2	69.8	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	39	83	180	387
CNEL:	42	89	193	415

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Lampson Ave.
Road Segment: e/o Tulip St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,750 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,134 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.40	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.64	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.60	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.4	67.4	65.6	59.6	68.2	68.8
Medium Trucks:	62.2	61.6	55.2	53.7	62.1	62.4
Heavy Trucks:	63.1	62.5	53.5	54.7	63.1	63.2
Vehicle Noise:	70.3	69.4	66.2	61.6	70.1	70.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	41	87	189	406
CNEL:	44	94	202	436

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Lampson Ave.
Road Segment: e/o Valley View St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,450 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	862 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.60	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.83	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.79	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.2	66.2	64.4	58.4	67.0	67.6
Medium Trucks:	61.1	60.4	54.0	52.5	60.9	61.2
Heavy Trucks:	61.9	61.3	52.3	53.5	61.9	62.0
Vehicle Noise:	69.1	68.2	65.0	60.4	68.9	69.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	34	73	157	338
CNEL:	36	78	168	363

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Los Alamitos Blvd.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	41,650 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	3,436 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	3.92	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-13.32	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-17.27	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.2	66.1	64.4	58.3	66.9	67.5
Medium Trucks:	61.2	60.5	54.1	52.6	61.1	61.3
Heavy Trucks:	62.5	61.9	52.9	54.1	62.5	62.6
Vehicle Noise:	69.2	68.3	65.0	60.5	69.0	69.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	63	136	292	629
CNEL:	67	145	313	673

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Los Alamitos Blvd.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	37,250 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	3,073 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	3.44	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-13.80	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-17.76	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.7	65.7	63.9	57.8	66.5	67.1
Medium Trucks:	60.7	60.0	53.7	52.1	60.6	60.8
Heavy Trucks:	62.0	61.4	52.4	53.6	62.0	62.1
Vehicle Noise:	68.7	67.8	64.6	60.0	68.5	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	58	126	271	584
CNEL:	63	135	290	625

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Valley View St.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	41,700 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	3,440 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	3.41	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-13.82	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-17.78	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.6	67.6	65.8	59.8	68.4	69.0
Medium Trucks:	62.4	61.7	55.4	53.8	62.3	62.5
Heavy Trucks:	63.3	62.7	53.6	54.9	63.2	63.4
Vehicle Noise:	70.5	69.6	66.4	61.8	70.3	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	76	165	354	764
CNEL:	82	176	380	819

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E + P
Road Name: Valley View St.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	41,200 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	3,399 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	3.36	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-13.88	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-17.83	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.6	67.5	65.8	59.7	68.3	68.9
Medium Trucks:	62.4	61.7	55.3	53.8	62.2	62.5
Heavy Trucks:	63.2	62.6	53.6	54.8	63.2	63.3
Vehicle Noise:	70.4	69.5	66.4	61.7	70.2	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	76	163	352	758
CNEL:	81	175	377	813

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Lampson Ave.
Road Segment: e/o Los Alamitos Blvd.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,350	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,679	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.30	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-16.94	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-20.89	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.1	69.1	67.3	61.3	69.9	70.5
Medium Trucks:	63.9	63.3	56.9	55.4	63.8	64.1
Heavy Trucks:	64.8	64.2	55.2	56.4	64.8	64.9
Vehicle Noise:	72.0	71.1	67.9	63.3	71.8	72.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	53	114	245	527
CNEL:	57	122	263	566

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Lampson Ave.
Road Segment: e/o Old Ranch Plaza

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,050 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,572 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.01	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.23	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.18	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.9	68.8	67.0	61.0	69.6	70.2
Medium Trucks:	63.7	63.0	56.6	55.1	63.5	63.8
Heavy Trucks:	64.5	63.9	54.9	56.1	64.5	64.6
Vehicle Noise:	71.7	70.8	67.6	63.0	71.5	72.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	50	109	234	505
CNEL:	54	117	251	541

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Lampson Ave.
Road Segment: e/o Basswood St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,200 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,254 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.97	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.21	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.16	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.8	66.0	60.0	68.6	69.2
Medium Trucks:	62.7	62.0	55.6	54.1	62.6	62.8
Heavy Trucks:	63.5	62.9	53.9	55.1	63.5	63.6
Vehicle Noise:	70.7	69.8	66.7	62.0	70.5	71.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	43	94	202	434
CNEL:	47	100	216	466

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Lampson Ave.
Road Segment: e/o Candleberry St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,500 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,114 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.48	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.72	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.68	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.4	67.3	65.5	59.5	68.1	68.7
Medium Trucks:	62.2	61.5	55.1	53.6	62.0	62.3
Heavy Trucks:	63.0	62.4	53.4	54.6	63.0	63.1
Vehicle Noise:	70.2	69.3	66.1	61.5	70.0	70.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	40	86	186	401
CNEL:	43	93	200	430

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Lampson Ave.
Road Segment: e/o Heather St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,750 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,134 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.40	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.64	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.60	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.4	67.4	65.6	59.6	68.2	68.8
Medium Trucks:	62.2	61.6	55.2	53.7	62.1	62.4
Heavy Trucks:	63.1	62.5	53.5	54.7	63.1	63.2
Vehicle Noise:	70.3	69.4	66.2	61.6	70.1	70.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	41	87	189	406
CNEL:	44	94	202	436

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Lampson Ave.
Road Segment: e/o Driveway 1

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,600 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,122 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.45	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.69	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.65	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.4	67.3	65.6	59.5	68.1	68.7
Medium Trucks:	62.2	61.5	55.2	53.6	62.1	62.3
Heavy Trucks:	63.0	62.5	53.4	54.7	63.0	63.1
Vehicle Noise:	70.2	69.3	66.2	61.5	70.1	70.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	40	87	187	403
CNEL:	43	93	201	432

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Lampson Ave.
Road Segment: e/o Driveway 2

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,600	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,122	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.45	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.69	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.65	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.4	67.3	65.6	59.5	68.1	68.7
Medium Trucks:	62.2	61.5	55.2	53.6	62.1	62.3
Heavy Trucks:	63.0	62.5	53.4	54.7	63.0	63.1
Vehicle Noise:	70.2	69.3	66.2	61.5	70.1	70.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	40	87	187	403
CNEL:	43	93	201	432

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Lampson Ave.
Road Segment: e/o Rose St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,300 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,180 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.23	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.47	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.43	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.6	67.5	65.8	59.7	68.3	69.0
Medium Trucks:	62.4	61.7	55.4	53.8	62.3	62.5
Heavy Trucks:	63.3	62.7	53.6	54.9	63.2	63.4
Vehicle Noise:	70.5	69.6	66.4	61.7	70.3	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	42	90	194	417
CNEL:	45	96	208	447

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Lampson Ave.
Road Segment: e/o Tulip St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,450	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,275	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.90	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.14	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.09	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.9	66.1	60.1	68.7	69.3
Medium Trucks:	62.7	62.1	55.7	54.2	62.6	62.9
Heavy Trucks:	63.6	63.0	54.0	55.2	63.6	63.7
Vehicle Noise:	70.8	69.9	66.7	62.1	70.6	71.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	44	95	204	439
CNEL:	47	101	219	471

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Lampson Ave.
Road Segment: e/o Valley View St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,400 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	941 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.22	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.46	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.41	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.6	66.6	64.8	58.7	67.4	68.0
Medium Trucks:	61.4	60.8	54.4	52.9	61.3	61.5
Heavy Trucks:	62.3	61.7	52.6	53.9	62.3	62.4
Vehicle Noise:	69.5	68.6	65.4	60.7	69.3	69.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	36	77	166	358
CNEL:	38	83	178	384

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Los Alamitos Blvd.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	41,150	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	3,395	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	3.87	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-13.37	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-17.33	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.2	66.1	64.3	58.3	66.9	67.5
Medium Trucks:	61.1	60.5	54.1	52.6	61.0	61.2
Heavy Trucks:	62.5	61.9	52.8	54.1	62.4	62.6
Vehicle Noise:	69.2	68.3	65.0	60.4	69.0	69.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	62	134	290	624
CNEL:	67	144	310	668

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Los Alamitos Blvd.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	42,250	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	3,486	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	3.98	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-13.25	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-17.21	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.3	66.2	64.4	58.4	67.0	67.6
Medium Trucks:	61.2	60.6	54.2	52.7	61.1	61.4
Heavy Trucks:	62.6	62.0	52.9	54.2	62.6	62.7
Vehicle Noise:	69.3	68.4	65.1	60.6	69.1	69.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	64	137	295	635
CNEL:	68	146	316	680

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Valley View St.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	46,100	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	3,803	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	3.85	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-13.39	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-17.34	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.1	68.0	66.3	60.2	68.8	69.4
Medium Trucks:	62.8	62.2	55.8	54.3	62.7	63.0
Heavy Trucks:	63.7	63.1	54.1	55.3	63.7	63.8
Vehicle Noise:	70.9	70.0	66.9	62.2	70.7	71.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	82	176	379	817
CNEL:	88	189	407	876

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) NP
Road Name: Valley View St.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	45,150	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	3,725	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	3.76	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-13.48	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-17.43	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.0	67.9	66.2	60.1	68.7	69.3
Medium Trucks:	62.8	62.1	55.7	54.2	62.6	62.9
Heavy Trucks:	63.6	63.0	54.0	55.2	63.6	63.7
Vehicle Noise:	70.8	69.9	66.8	62.1	70.6	71.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	81	173	374	805
CNEL:	86	186	401	864

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Lampson Ave.
Road Segment: e/o Los Alamitos Blvd.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	21,250	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,753	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.49	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-16.75	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-20.71	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.3	69.3	67.5	61.4	70.1	70.7
Medium Trucks:	64.1	63.5	57.1	55.6	64.0	64.2
Heavy Trucks:	65.0	64.4	55.4	56.6	65.0	65.1
Vehicle Noise:	72.2	71.3	68.1	63.4	72.0	72.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	54	117	252	543
CNEL:	58	125	270	582

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Lampson Ave.
Road Segment: e/o Old Ranch Plaza

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	19,950	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,646	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.21	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.03	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-20.98	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.1	69.0	67.2	61.2	69.8	70.4
Medium Trucks:	63.9	63.2	56.8	55.3	63.7	64.0
Heavy Trucks:	64.7	64.1	55.1	56.3	64.7	64.8
Vehicle Noise:	71.9	71.0	67.8	63.2	71.7	72.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	52	112	242	521
CNEL:	56	120	259	558

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Lampson Ave.
Road Segment: e/o Basswood St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,150 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,332 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.70	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.94	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.90	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.1	68.1	66.3	60.3	68.9	69.5
Medium Trucks:	62.9	62.3	55.9	54.4	62.8	63.1
Heavy Trucks:	63.8	63.2	54.2	55.4	63.8	63.9
Vehicle Noise:	71.0	70.1	66.9	62.3	70.8	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	45	97	210	452
CNEL:	48	104	225	485

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Lampson Ave.
Road Segment: e/o Candleberry St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,400	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,188	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.20	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.44	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.40	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.6	67.6	65.8	59.8	68.4	69.0
Medium Trucks:	62.4	61.8	55.4	53.9	62.3	62.6
Heavy Trucks:	63.3	62.7	53.7	54.9	63.3	63.4
Vehicle Noise:	70.5	69.6	66.4	61.8	70.3	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	42	90	194	419
CNEL:	45	97	209	449

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Lampson Ave.
Road Segment: e/o Heather St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,700	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,213	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.11	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.35	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.31	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.7	67.7	65.9	59.8	68.5	69.1
Medium Trucks:	62.5	61.9	55.5	54.0	62.4	62.6
Heavy Trucks:	63.4	62.8	53.8	55.0	63.4	63.5
Vehicle Noise:	70.6	69.7	66.5	61.8	70.4	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	42	91	197	425
CNEL:	46	98	211	455

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Lampson Ave.
Road Segment: e/o Driveway 1

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,500	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,196	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.17	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.41	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.37	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.7	67.6	65.8	59.8	68.4	69.0
Medium Trucks:	62.5	61.8	55.4	53.9	62.4	62.6
Heavy Trucks:	63.3	62.7	53.7	54.9	63.3	63.4
Vehicle Noise:	70.5	69.6	66.5	61.8	70.3	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	42	91	195	421
CNEL:	45	97	209	451

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Lampson Ave.
Road Segment: e/o Driveway 2

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,350 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,184 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.22	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.46	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.41	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.6	67.6	65.8	59.7	68.4	69.0
Medium Trucks:	62.4	61.8	55.4	53.9	62.3	62.5
Heavy Trucks:	63.3	62.7	53.6	54.9	63.3	63.4
Vehicle Noise:	70.5	69.6	66.4	61.7	70.3	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	42	90	194	418
CNEL:	45	97	208	448

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Lampson Ave.
Road Segment: e/o Rose St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,050	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,242	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.01	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.25	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.21	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.8	67.8	66.0	59.9	68.6	69.2
Medium Trucks:	62.6	62.0	55.6	54.1	62.5	62.8
Heavy Trucks:	63.5	62.9	53.9	55.1	63.5	63.6
Vehicle Noise:	70.7	69.8	66.6	61.9	70.5	70.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	43	93	200	431
CNEL:	46	100	215	463

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Lampson Ave.
Road Segment: e/o Tulip St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,200 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,337 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.69	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.93	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.89	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.2	68.1	66.3	60.3	68.9	69.5
Medium Trucks:	63.0	62.3	55.9	54.4	62.8	63.1
Heavy Trucks:	63.8	63.2	54.2	55.4	63.8	63.9
Vehicle Noise:	71.0	70.1	66.9	62.3	70.8	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	45	98	210	453
CNEL:	49	105	226	486

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Lampson Ave.
Road Segment: e/o Valley View St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,650 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	961 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.12	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.36	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.32	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.7	66.7	64.9	58.8	67.5	68.1
Medium Trucks:	61.5	60.9	54.5	52.9	61.4	61.6
Heavy Trucks:	62.4	61.8	52.7	54.0	62.3	62.5
Vehicle Noise:	69.6	68.7	65.5	60.8	69.4	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	36	78	169	364
CNEL:	39	84	181	390

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Los Alamitos Blvd.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	44,450	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	3,667	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	4.20	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-13.03	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-16.99	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.5	66.4	64.7	58.6	67.2	67.8
Medium Trucks:	61.5	60.8	54.4	52.9	61.3	61.6
Heavy Trucks:	62.8	62.2	53.2	54.4	62.8	62.9
Vehicle Noise:	69.5	68.6	65.3	60.8	69.3	69.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	66	142	305	657
CNEL:	70	152	326	703

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Los Alamitos Blvd.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	42,850	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	3,535	vehicles
Vehicle Speed:	40	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	4.04	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-13.19	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-17.15	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.3	66.3	64.5	58.4	67.1	67.7
Medium Trucks:	61.3	60.6	54.3	52.7	61.2	61.4
Heavy Trucks:	62.6	62.0	53.0	54.3	62.6	62.7
Vehicle Noise:	69.3	68.4	65.2	60.6	69.2	69.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	64	138	298	641
CNEL:	69	148	319	686

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Valley View St.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	46,300	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	3,820	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	3.87	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-13.37	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-17.32	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.1	68.0	66.3	60.2	68.8	69.4
Medium Trucks:	62.9	62.2	55.8	54.3	62.7	63.0
Heavy Trucks:	63.7	63.1	54.1	55.3	63.7	63.8
Vehicle Noise:	70.9	70.0	66.9	62.2	70.7	71.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	82	176	380	819
CNEL:	88	189	408	878

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: OY(2026) WP
Road Name: Valley View St.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	45,500	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	3,754	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	3.79	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-13.44	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-17.40	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.0	68.0	66.2	60.1	68.8	69.4
Medium Trucks:	62.8	62.1	55.8	54.2	62.7	62.9
Heavy Trucks:	63.6	63.1	54.0	55.3	63.6	63.7
Vehicle Noise:	70.9	70.0	66.8	62.1	70.7	71.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	81	174	376	809
CNEL:	87	187	403	868

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Lampson Ave.
Road Segment: e/o Los Alamitos Blvd.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	22,350 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,844 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.71	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-16.53	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-20.49	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.5	69.5	67.7	61.7	70.3	70.9
Medium Trucks:	64.4	63.7	57.3	55.8	64.2	64.5
Heavy Trucks:	65.2	64.6	55.6	56.8	65.2	65.3
Vehicle Noise:	72.4	71.5	68.3	63.7	72.2	72.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	56	121	261	561
CNEL:	60	130	280	602

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Lampson Ave.
Road Segment: e/o Old Ranch Plaza

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,000	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,650	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.22	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.01	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-20.97	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.1	69.0	67.2	61.2	69.8	70.4
Medium Trucks:	63.9	63.2	56.8	55.3	63.8	64.0
Heavy Trucks:	64.7	64.1	55.1	56.3	64.7	64.8
Vehicle Noise:	71.9	71.0	67.9	63.2	71.7	72.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	52	112	242	521
CNEL:	56	120	260	559

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Lampson Ave.
Road Segment: e/o Basswood St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,000 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,320 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.75	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.98	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.94	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.1	68.0	66.3	60.2	68.8	69.4
Medium Trucks:	62.9	62.2	55.9	54.3	62.8	63.0
Heavy Trucks:	63.7	63.2	54.1	55.4	63.7	63.9
Vehicle Noise:	70.9	70.0	66.9	62.2	70.8	71.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	45	97	209	449
CNEL:	48	104	224	482

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Lampson Ave.
Road Segment: e/o Candleberry St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,150 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,167 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.28	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.52	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.47	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.6	67.5	65.7	59.7	68.3	68.9
Medium Trucks:	62.4	61.7	55.3	53.8	62.2	62.5
Heavy Trucks:	63.2	62.6	53.6	54.8	63.2	63.3
Vehicle Noise:	70.4	69.5	66.3	61.7	70.2	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	41	89	192	414
CNEL:	44	96	206	444

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Lampson Ave.
Road Segment: e/o Heather St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,450 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,192 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.19	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.43	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.38	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.7	67.6	65.8	59.8	68.4	69.0
Medium Trucks:	62.5	61.8	55.4	53.9	62.3	62.6
Heavy Trucks:	63.3	62.7	53.7	54.9	63.3	63.4
Vehicle Noise:	70.5	69.6	66.4	61.8	70.3	70.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	42	90	195	420
CNEL:	45	97	209	450

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Lampson Ave.
Road Segment: e/o Driveway 1

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,250 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,176 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.25	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.49	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.44	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.6	67.5	65.8	59.7	68.3	68.9
Medium Trucks:	62.4	61.7	55.4	53.8	62.3	62.5
Heavy Trucks:	63.2	62.7	53.6	54.9	63.2	63.3
Vehicle Noise:	70.4	69.5	66.4	61.7	70.3	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	42	90	193	416
CNEL:	45	96	207	446

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Lampson Ave.
Road Segment: e/o Driveway 2

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	14,250 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,176 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.25	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.49	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.44	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.6	67.5	65.8	59.7	68.3	68.9
Medium Trucks:	62.4	61.7	55.4	53.8	62.3	62.5
Heavy Trucks:	63.2	62.7	53.6	54.9	63.2	63.3
Vehicle Noise:	70.4	69.5	66.4	61.7	70.3	70.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	42	90	193	416
CNEL:	45	96	207	446

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Lampson Ave.
Road Segment: e/o Rose St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,000 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,238 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.03	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.26	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.22	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.8	67.8	66.0	59.9	68.6	69.2
Medium Trucks:	62.6	61.9	55.6	54.0	62.5	62.7
Heavy Trucks:	63.5	62.9	53.8	55.1	63.4	63.6
Vehicle Noise:	70.7	69.8	66.6	61.9	70.5	70.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	43	93	200	430
CNEL:	46	99	214	462

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Lampson Ave.
Road Segment: e/o Tulip St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,200 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,337 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.69	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.93	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.89	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.2	68.1	66.3	60.3	68.9	69.5
Medium Trucks:	63.0	62.3	55.9	54.4	62.8	63.1
Heavy Trucks:	63.8	63.2	54.2	55.4	63.8	63.9
Vehicle Noise:	71.0	70.1	66.9	62.3	70.8	71.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	45	98	210	453
CNEL:	49	105	226	486

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Lampson Ave.
Road Segment: e/o Valley View St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,700 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,048 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.75	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.99	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.94	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.1	67.0	65.3	59.2	67.8	68.4
Medium Trucks:	61.9	61.2	54.9	53.3	61.8	62.0
Heavy Trucks:	62.7	62.2	53.1	54.4	62.7	62.8
Vehicle Noise:	69.9	69.0	65.9	61.2	69.8	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	39	83	179	385
CNEL:	41	89	192	413

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Los Alamitos Blvd.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	48,550 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	4,005 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	4.59	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-12.65	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-16.61	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.9	66.8	65.0	59.0	67.6	68.2
Medium Trucks:	61.8	61.2	54.8	53.3	61.7	62.0
Heavy Trucks:	63.2	62.6	53.5	54.8	63.2	63.3
Vehicle Noise:	69.9	69.0	65.7	61.2	69.7	70.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	70	150	323	697
CNEL:	75	161	346	746

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Los Alamitos Blvd.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	46,500 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	3,836 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	4.40	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-12.84	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-16.79	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.7	66.6	64.9	58.8	67.4	68.0
Medium Trucks:	61.7	61.0	54.6	53.1	61.5	61.8
Heavy Trucks:	63.0	62.4	53.4	54.6	63.0	63.1
Vehicle Noise:	69.7	68.8	65.5	61.0	69.5	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	68	146	314	677
CNEL:	72	156	336	725

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Valley View St.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	50,750	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	4,187	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	4.27	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-12.97	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-16.93	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.5	68.4	66.7	60.6	69.2	69.8
Medium Trucks:	63.3	62.6	56.2	54.7	63.1	63.4
Heavy Trucks:	64.1	63.5	54.5	55.7	64.1	64.2
Vehicle Noise:	71.3	70.4	67.3	62.6	71.1	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	87	188	404	871
CNEL:	93	201	433	934

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) NP
Road Name: Valley View St.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	49,650 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	4,096 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	4.17	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-13.07	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-17.02	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.4	68.3	66.6	60.5	69.1	69.7
Medium Trucks:	63.2	62.5	56.1	54.6	63.1	63.3
Heavy Trucks:	64.0	63.4	54.4	55.6	64.0	64.1
Vehicle Noise:	71.2	70.3	67.2	62.5	71.1	71.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	86	185	398	858
CNEL:	92	198	427	920

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Lampson Ave.
Road Segment: e/o Los Alamitos Blvd.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	23,300 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,922 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.89	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-16.35	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-20.31	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.7	69.7	67.9	61.8	70.5	71.1
Medium Trucks:	64.5	63.9	57.5	56.0	64.4	64.6
Heavy Trucks:	65.4	64.8	55.8	57.0	65.4	65.5
Vehicle Noise:	72.6	71.7	68.5	63.8	72.4	72.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	58	124	268	577
CNEL:	62	133	287	619

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Lampson Ave.
Road Segment: e/o Old Ranch Plaza

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,900 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,724 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.41	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-16.82	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-20.78	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	70.3	69.2	67.4	61.4	70.0	70.6
Medium Trucks:	64.1	63.4	57.0	55.5	63.9	64.2
Heavy Trucks:	64.9	64.3	55.3	56.5	64.9	65.0
Vehicle Noise:	72.1	71.2	68.0	63.4	71.9	72.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	54	116	249	537
CNEL:	58	124	267	576

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Lampson Ave.
Road Segment: e/o Basswood St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,900 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,394 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.51	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.75	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.70	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.3	68.3	66.5	60.5	69.1	69.7
Medium Trucks:	63.1	62.5	56.1	54.6	63.0	63.3
Heavy Trucks:	64.0	63.4	54.4	55.6	64.0	64.1
Vehicle Noise:	71.2	70.3	67.1	62.5	71.0	71.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	47	100	216	466
CNEL:	50	108	232	500

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Lampson Ave.
Road Segment: e/o Candleberry St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,100	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	1,246	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	46	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	40.0	feet
Centerline Dist. to Observer:	40.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.00	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.24	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.19	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.8	67.8	66.0	60.0	68.6	69.2
Medium Trucks:	62.6	62.0	55.6	54.1	62.5	62.8
Heavy Trucks:	63.5	62.9	53.9	55.1	63.5	63.6
Vehicle Noise:	70.7	69.8	66.6	62.0	70.5	71.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	43	93	201	432
CNEL:	46	100	215	464

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Lampson Ave.
Road Segment: e/o Heather St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,350 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,266 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.93	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.16	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.12	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.9	66.1	60.0	68.7	69.3
Medium Trucks:	62.7	62.0	55.7	54.1	62.6	62.8
Heavy Trucks:	63.6	63.0	53.9	55.2	63.5	63.7
Vehicle Noise:	70.8	69.9	66.7	62.0	70.6	71.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	44	94	203	437
CNEL:	47	101	218	469

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Lampson Ave.
Road Segment: e/o Driveway 1

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,150 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,250 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.98	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.22	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.18	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.8	66.0	60.0	68.6	69.2
Medium Trucks:	62.7	62.0	55.6	54.1	62.5	62.8
Heavy Trucks:	63.5	62.9	53.9	55.1	63.5	63.6
Vehicle Noise:	70.7	69.8	66.6	62.0	70.5	71.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	43	93	201	433
CNEL:	46	100	216	465

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Lampson Ave.
Road Segment: e/o Driveway 2

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,000 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,238 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.03	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.26	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.22	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.8	67.8	66.0	59.9	68.6	69.2
Medium Trucks:	62.6	61.9	55.6	54.0	62.5	62.7
Heavy Trucks:	63.5	62.9	53.8	55.1	63.4	63.6
Vehicle Noise:	70.7	69.8	66.6	61.9	70.5	70.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	43	93	200	430
CNEL:	46	99	214	462

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Lampson Ave.
Road Segment: e/o Rose St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,750 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,299 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.81	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.05	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.01	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.0	68.0	66.2	60.1	68.8	69.4
Medium Trucks:	62.8	62.2	55.8	54.3	62.7	62.9
Heavy Trucks:	63.7	63.1	54.1	55.3	63.7	63.8
Vehicle Noise:	70.9	70.0	66.8	62.1	70.7	71.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	44	96	206	445
CNEL:	48	103	221	477

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Lampson Ave.
Road Segment: e/o Tulip St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,950 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,398 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.49	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.73	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.69	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.3	68.3	66.5	60.5	69.1	69.7
Medium Trucks:	63.2	62.5	56.1	54.6	63.0	63.3
Heavy Trucks:	64.0	63.4	54.4	55.6	64.0	64.1
Vehicle Noise:	71.2	70.3	67.1	62.5	71.0	71.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	47	101	217	467
CNEL:	50	108	232	501

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Lampson Ave.
Road Segment: e/o Valley View St.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,950 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	1,068 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	46 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	33.106
Medium Trucks:	32.838
Heavy Trucks:	32.864

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.66	2.58	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.90	2.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.86	2.63	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.2	67.1	65.3	59.3	67.9	68.5
Medium Trucks:	62.0	61.3	54.9	53.4	61.9	62.1
Heavy Trucks:	62.8	62.2	53.2	54.5	62.8	62.9
Vehicle Noise:	70.0	69.1	66.0	61.3	69.8	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	39	84	181	390
CNEL:	42	90	194	419

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Los Alamitos Blvd.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	48,900 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	4,034 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	4.62	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-12.62	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-16.58	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.9	66.8	65.1	59.0	67.6	68.2
Medium Trucks:	61.9	61.2	54.8	53.3	61.8	62.0
Heavy Trucks:	63.2	62.6	53.6	54.8	63.2	63.3
Vehicle Noise:	69.9	69.0	65.7	61.2	69.7	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	70	151	325	700
CNEL:	75	161	348	750

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Los Alamitos Blvd.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	47,050 vehicles
Peak Hour Percentage:	8.25%
Peak Hour Volume:	3,882 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	58 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	73.0 feet
Centerline Dist. to Observer:	73.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	4.45	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	77.72	-12.79	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	82.99	-16.74	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.7	66.7	64.9	58.9	67.5	68.1
Medium Trucks:	61.7	61.0	54.7	53.1	61.6	61.8
Heavy Trucks:	63.0	62.4	53.4	54.7	63.0	63.1
Vehicle Noise:	69.7	68.9	65.6	61.0	69.6	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	68	147	317	682
CNEL:	73	157	339	731

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Valley View St.
Road Segment: n/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	50,900	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	4,199	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	4.28	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-12.96	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-16.91	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.5	68.5	66.7	60.6	69.3	69.9
Medium Trucks:	63.3	62.6	56.2	54.7	63.2	63.4
Heavy Trucks:	64.1	63.5	54.5	55.8	64.1	64.2
Vehicle Noise:	71.4	70.4	67.3	62.6	71.2	71.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	87	188	405	872
CNEL:	94	202	434	936

Tuesday, February 7, 2023

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: GBPO (2045) WP
Road Name: Valley View St.
Road Segment: s/o Lampson Ave.

Project Name: 4665 Lampson Avenue
Job Number: 14501

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	50,000	vehicles
Peak Hour Percentage:	8.25%	
Peak Hour Volume:	4,125	vehicles
Vehicle Speed:	45	mph
Near/Far Lane Distance:	58	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	73.0	feet
Centerline Dist. to Observer:	73.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	67.179
Medium Trucks:	67.047
Heavy Trucks:	67.060

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	4.20	-2.03	-1.20	*-4.72*	0.000	0.000
Medium Trucks:	79.45	-13.04	-2.01	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	84.25	-16.99	-2.02	-1.20	*-5.26*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.4	68.4	66.6	60.6	69.2	69.8
Medium Trucks:	63.2	62.5	56.2	54.6	63.1	63.3
Heavy Trucks:	64.0	63.5	54.4	55.7	64.0	64.2
Vehicle Noise:	71.3	70.4	67.2	62.5	71.1	71.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	86	186	400	862
CNEL:	92	199	429	925

Tuesday, February 7, 2023

APPENDIX 10.1:

CARRIER 25HBC5 AIR CONDITIONING UNIT

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24ABC6
Comfort™ 16 Air Conditioner with Puron® Refrigerant
1–1/2 to 5 Nominal Tons

Carrier
turn to the experts

Product Data

Puron
the environmentally sound refrigerant

Comfort SERIES

Carrier's Air Conditioners with Puron® refrigerant provide a collection of features unmatched by any other family of equipment. The 24ABC has been designed utilizing Carrier's Puron refrigerant. The environmentally sound refrigerant allows you to make a responsible decision in the protection of the earth's ozone layer.

This product has been designed and manufactured to meet Energy Star® criteria for energy efficiency when matched with appropriate coil components. Refer to the combination ratings in the Product Data for system combinations that meet Energy Star® guidelines.

NOTE: Ratings contained in this document are subject to change at any time. Always refer to the AHRI directory (www.ahridirectory.org) for the most up-to-date ratings information.

INDUSTRY LEADING FEATURES / BENEFITS

Efficiency

- 14 - 16.5 SEER/11.0- 13.5 EER
- Microtube Technology™ refrigeration system
- Indoor air quality accessories available

Sound

- Sound level as low as 76 dBA
- Sound level as low as 74 dBA with accessory sound blanket

Comfort

- System supports Edge® Thermidistat™ or standard thermostat controls

Reliability

- Puron® refrigerant - environmentally sound, won't deplete the ozone layer and low lifetime servce cost.
- Scroll compressor
- Internal pressure relief valve
- Internal thermal overload
- Filter drier
- Balanced refrigeration system for maximum reliability

Durability

WeatherArmor™ protection package:

- Solid, durable sheet metal construction
- Dense wire coil guard standard
- Baked-on, complete outer coverage, powder paint

Applications

- Long-line - up to 250 feet (76.20 m) total equivalent length, up to 200 feet (60.96 m) condenser above evaporator, or up to 80 ft. (24.38 m) evaporator above condenser (See Longline Guide for more information.)
- Low ambient (down to -20°F/-28.9°C)) with accessory kit

MODEL NUMBER NOMENCLATURE

1	2	3	4	5	6	7	8	9	10	11	12	13
N	N	A	A	A/N	N	N	N	A/N	A/N	A/N	N	N
2	**4**	**A**	**B**	**C**	**6**	**3**	**6**	**A**	**0**	**0**	**3**	0
Product Series		Product Family	Tier	Major Series	SEER	Cooling Capacity		Grille Variations	Open	Open	Voltage	Series
24=AC		A=RES AC	B=Comfort	C=Puron	6=16 SEER			A = Dense W = Standard	0=Not Defined	0=Not Defined	3=208/230–1	0 = Original Series

24ABC6

Puron™ the environmentally sound refrigerant

AHRI CERTIFIED™ www.ahridirectory.org

Use of the AHRI Certified TM Mark indicates a manufacturer's participation in the program For verification of certification for individual products, go to www.ahridirectory.org.

Certified System™

ISO 9001 QMI-SAI Global

c UL us

ENERGY STAR

This product has been designed and manufactured to meet Energy Star® criteria for energy efficiency when matched with appropriate coil components. However, proper refrigerant charge and proper air flow are critical to achieve rated capacity and efficiency. Installation of this product should follow all manufacturing refrigerant charging and air flow instructions. **Failure to confirm proper charge and air flow may reduce energy efficiency and shorten equipment life.**

STANDARD FEATURES

Feature	**18**	**24**	**30**	**36**	**42**	**48 / 49**	**60 / 61**
Puron Refrigerant	X	X	X	X	X	X	X
Maximum SEER *	16.0	16.0	16.5	16.5	16.0	16.0	16.0
Scroll Compressor	X	X	X	X	X	X	X
Field Installed Filter Drier	X	X	X	X	X	X	X
Front Seating Service Valves	X	X	X	X	X	X	X
Internal Pressure Relief Valve	X	X	X	X	X	X	X
Internal Thermal Overload	X	X	X	X	X	X	X
Long Line capability	X	X	X	X	X	X	X
Low Ambient capability with Kit	X	X	X	X	X	X	X
Dense Grille	X	X	X	X	X	X	X

* With approved combinations

X = Standard

PHYSICAL DATA

UNIT SIZE–VOLTAGE, SERIES	**18–31**	**24–30**	**30–30**	**36–30**	**42–30**	**48–31**	**49–30**	**60–30**	**61–30**
Operating Weight lb (kg)	125 (56.7)	147 (66.5)	153 (69.3)	165 (74.8)	213 (96.4)	264 (119.7)	231 (104.8)	272 (123.4)	272 (123.4)
Shipping Weight lb (kg)	154 (69.9)	183 (82.8)	188 (85.2)	204 (92.5)	254 (115.2)	317 (143.8)	269 (222.0)	310 (140.6)	310 (140.6)
Compressor Type	Scroll								
REFRIGERANT	Puron® (R–410A)								
Control	TXV (Puron® Hard Shutoff)								
Charge lb (kg)	4.60 (2.09)	6.00 (2.72)	6.81 (3.09)	7.00 (3.18)	8.62 (3.91)	13.0 (5.90)	9.00 (4.08)	14.50 (6.58)	14.50 (6.58)
COND FAN	Propeller Type, Direct Drive								
Air Discharge	Vertical								Vertical
Air Qty (CFM)	1881	2614	2614	3223	3810	4046	4046	4046	4046
Motor HP	1/12	1/10	1/10	1/12	1/5	1/4	1/4	1/4	1/4
Motor RPM	1100	1100	1100	800	800	800	800	800	800
COND COIL									
Face Area (Sq ft)	11.50	15.10	17.20	17.60	25.15	25.15	25.15	30.15	30.15
Fins per In.	25	25	25	25	25	20	20	20	20
Rows	1	1	1	1	1	2	1	2	2
Circuits	3	4	4	4	6	7	7	8	8
VALVE CONNECT. (In. ID)									
Vapor	3/4	3/4	3/4	7/8	7/8	7/8	7/8	7/8	7/8
Liquid	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8	3/8
REFRIGERANT TUBES (In. OD)									
Rated Vapor*	3/4			7/8				1–1/8	
Max Liquid Line †	3/8								

* Units are rated with 25 ft (7.6 m) of lineset length. See Vapor Line Sizing and Cooling Capacity Loss table when using other sizes and lengths of lineset.
Note: See unit Installation Instruction for proper installation.

† See *Liquid Line Sizing For Cooling Only Systems with Puron Refrigerant* tables.

REFRIGERANT PIPING LENGTH LIMITATIONS

Liquid Line Sizing and Maximum Total Equivalent Lengths† for Cooling Only Systems with Puron® Refrigerant:

The maximum allowable length of a residential split system depends on the liquid line diameter and vertical separation between indoor and outdoor units.

See Table below for liquid line sizing and maximum lengths :

Maximum Total Equivalent Length
Outdoor Unit BELOW Indoor Unit

Size	Liquid Line Connection	Liquid Line Diam. w/ TXV	AC with Puron Refrigerant Maximum Total Equivalent Length†: Outdoor unit BELOW Indoor Vertical Separation ft (m)								
			0–5 (0–1.5)	6–10 (1.8–3.0)	11–20 (3.4–6.1)	21–30 (6.4–9.1)	31–40 (9.4–12.2)	41–50 (12.5–15.2)	51–60 (15.5–18.3)	61–70 (18.6–21.3)	71–80 (21.6–24.4)
18000 AC with Puron	3/8	1/4	150	150	125	100	100	75	– –	– –	– –
		5/16	250*	250*	250*	250*	250*	250*	250*	225*	150
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
24000 AC with Puron	3/8	1/4	75	75	75	50	50	– –	– –	– –	– –
		5/16	250*	250*	250*	250*	250*	225*	175	125	100
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
30000 AC with Puron	3/8	1/4	30	– –	– –	– –	– –	– –	– –	– –	– –
		5/16	175	225*	200	175	125	100	75	– –	– –
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	250*
36000 AC with Puron	3/8	5/16	175	150	150	100	100	100	75	– –	– –
		3//8	250*	250*	250*	250*	250*	250*	250*	250*	250*
42000 AC with Puron	3/8	5/16	125	100	100	75	75	50	– –	– –	– –
		3/8	250*	250*	250*	250*	250*	250*	250*	250*	150
48000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	230	160	– –
49000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	230	160	– –
60000 AC with Puron	3/8	3/8	250*	250*	250*	225*	190	150	110	– –	– –
61000 AC with Puron	3/8	3/8	250*	250*	250*	225*	190	150	110	– –	– –

*** Maximum actual length not to exceed 200 ft (61 m)**

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

– – = outside acceptable range

Maximum Total Equivalent Length
Outdoor Unit ABOVE Indoor Unit

Size	Liquid Line Connection	Liquid Line Diam. w/ TXV	AC with Puron Refrigerant Maximum Total Equivalent Length†: Outdoor unit ABOVE Indoor Vertical Separation ft (m)							
			25 (7.6)	26–50 (7.9–15.2)	51–75 (15.5–22.9)	76–100 (23.2–30.5)	101–125 (30.8–38.1)	126–150 (38.4–45.7)	151–175 (46.0–53.3)	176–200 (53.6–61.0)
18000 AC with Puron	3/8	1/4	175	250*	250*	250*	250*	250*	250*	250*
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
24000 AC with Puron	3/8	1/4	100	125	175	200	225*	250*	250*	250*
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
30000 AC with Puron	3/8	1/4	30	– –	– –	– –	– –	– –	– –	– –
		5/16	250*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
36000 AC with Puron	3/8	5/16	225*	250*	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
42000 AC with Puron	3/8	5/16	175	200	250*	250*	250*	250*	250*	250*
		3/8	250*	250*	250*	250*	250*	250*	250*	250*
48000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*
49000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*
60000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*
61000 AC with Puron	3/8	3/8	250*	250*	250*	250*	250*	250*	250*	250*

*** Maximum actual length not to exceed 200 ft (61 m)**

† Total equivalent length accounts for losses due to elbows or fitting. See the Long Line Guideline for details.

– – = outside acceptable range

REFRIGERANT CHARGE ADJUSTMENTS

Liquid Line Size	Puron Charge oz/ft
3/8	0.60 (Factory charge for lineset = 9 oz)
5/16	0.40
1/4	0.27

Units are factory charged for 15 ft (4.6 m) of 3/8" liquid line. The factory charge for 3/8" lineset 9 oz. When using other length or diameter liquid lines, charge adjustments are required per the chart above.

Charging Formula:

[(Lineset oz/ft x total length) – (factory charge for lineset)] = charge adjustment

Example 1: System has 15 ft of line set using existing 1/4" liquid line. What charge adjustment is required?

Formula: (.27 oz/ft x 15ft) – (9 oz) = (-4.95) oz.

Net result is to remove 4.95 oz of refrigerant from the system

Example 2: System has 45 ft of existing 5/16" liquid line. What is the charge adjustment?

Formula: (.40 oz/ft. x 45ft) – (9 oz.) = 9 oz.

Net result is to add 9 oz of refrigerant to the system

LONG LINE APPLICATIONS

An application is considered Long Line, when the refrigerant level in the system requires the use of accessories to maintain acceptable refrigerant management for systems reliability. See Accessory Usage Guideline table for required accessories. Defining a system as long line depends on the liquid line diameter, actual length of the tubing, and vertical separation between the indoor and outdoor units.

For Air Conditioner systems, the chart below shows when an application is considered Long Line.

AC WITH PURON® REFRIGERANT LONG LINE DESCRIPTION ft (m)
Beyond these lengths, long line accessories are required

Liquid Line Size	Units On Same Level	Outdoor Below Indoor	Outdoor Above Indoor
1/4	No accessories needed within allowed lengths	No accessories needed within allowed lengths	175 (53.3)
5/16	120 (36.6)	50 (15.2)	120 (36.6)
3/8	80 (24.4)	35 (10.7)	80 (24.4)

Note: See Long Line Guideline for details

VAPOR LINE SIZING AND COOLING CAPACITY LOSS

Acceptable vapor line diameters provide adequate oil return to the compressor while avoiding excessive capacity loss. The suction line diameters shown in the chart below are acceptable for AC systems with Puron refrigerant:

Unit Nominal Size (Btuh)	Maximum Liquid Line Diameters (In. OD)	Vapor Line Diameters (In. OD)	Cooling Capacity Loss (%) Total Equivalent Line Length ft. (m)								
			26–50 (7.9–15.2)	51–80 (15.5–24.4)	81–100 (24.7–30.5)	101–125 (30.8–38.1)	126–150 (38.4–45.7)	151–175 (46.0–53.3)	176–200 (53.6–61.0)	201–225 (61.3–68.6)	226–250 (68.9–76.2)
18000 1 Stage AC with Puron	3/8	1/2	1	2	3	5	6	7	8	9	11
		5/8	0	1	1	1	2	2	2	3	3
		3/4	0	0	0	0	1	1	1	1	1
24000 1 Stage AC with Puron	3/8	5/8	0	1	2	2	3	3	4	5	5
		3/4	0	0	1	1	1	1	1	2	2
		7/8	0	0	0	0	0	1	1	1	1
30000 1 Stage AC with Puron	3/8	5/8	1	2	3	3	4	5	6	7	8
		3/4	0	0	1	1	1	2	2	2	3
		7/8	0	0	0	0	1	1	1	1	1
36000 1 Stage AC with Puron	3/8	5/8	1	2	4	5	6	8	9	10	12
		3/4	0	1	1	2	2	3	3	4	4
		7/8	0	0	0	1	1	1	1	2	2
42000 1 Stage AC with Puron	3/8	3/4	0	1	2	2	3	4	4	5	6
		7/8	0	0	1	1	1	2	2	2	3
		1 1/8	0	0	0	0	0	0	0	0	0
48000, 49000 1 Stage AC with Puron	3/8	3/4	0	1	2	3	4	5	5	6	7
		7/8	0	0	1	1	2	2	2	3	3
		1 1/8	0	0	0	0	0	0	0	1	1
60000, 61000 1 Stage AC with Puron	3/8	3/4	1	2	4	5	6	7	9	10	11
		7/8	0	1	2	2	3	4	4	5	5
		1 1/8	0	0	0	1	1	1	1	1	1

Applications in this area may be long line and may have height restrictions. See the *Residential Piping and Long Line Guideline*.

ACCESSORY THERMOSTATS

PART NUMBER	PROGRAM	GAS	ELECTRIC	HEAT PUMP	HEAT	COOL
Comfort						
TC–PAC01	5–2 Day	√	√		1	1
TC–NAC01	NP	√	√		1	1
TCSNAC01	NP	√	√		1	1

THERMOSTAT ACCESSORIES		
PART NUMBER	**DESCRIPTION**	**THERMOSTATS USED WITH**
TSTATXXCNV10‡	Thermostat Conversion Kit (4 to 5 wire) – 10 pack	All Carrier® branded thermostats
TX–LBP01	Large Decorative Backplate	TP–Pxx, TP–Nxx, TC–Pxx
TX–MBP01	Medium Decorative Backplate	TC–Nxx, TB–Pxx

ACCESSORIES

KIT NUMBER	DESCRIPTION	Unit Sizes – Series								
		18–31	24–30	30–30	36–30	42–30	48–31	49–30	60–30	61–30
KAAFT0101AAA	FREEZE THERMOSTAT	X	X	X	X	X	X	X	X	X
KAATD0101TDR	TIME DELAY RELAY	X	X	X	X	X	X	X	X	X
KSALA0301410	LOW AMBIENT PSW	X	X	X	X	X	X	X	X	X
KSALA0601AAA†	MOTORMASTER 230V	X	X	X	X	X	X	X	X	X
HC32GE234	MOTOR FAN BALL BEARING	X								
HC34GE240	MOTOR FAN BALL BEARING		X	X						
HC32GE229	MOTOR FAN BALL BEARING				X					
HC38GE228	MOTOR FAN BALL BEARING					X				
HC40GE228	MOTOR FAN BALL BEARING						X	X	X	X
KSAHS1701AAA	HARD START (CAP / RELAY)	X	X	X	X	X	X	X	X	X
KSACY0101AAA	CYCLE PROTECTOR	X	X	X	X	X	X	X	X	X
KSASF0101AAA	SUPPORT FEET	X	X	X	X	X	X	X	X	X
KAACS0201PTC	START ASSIST PTC	X	X	X	X	X	X	X	X	X
KAALS0201LLS	LIQUID LINE SOLENOID	X	X	X	X	X	X	X	X	X
KAAWS0101AAA	WINTER START	X	X	X	X	X	X	X	X	X
KAACH1701AAA	CRANKCASE HTR	X	X	X	X					
KAACH1601AAA	CRANKCASE HTR					X	S	S	S	S
KSATX0201PUR	TXV PURON HSO	X	X	X						
KSATX0301PUR	TXV PURON HSO				X					
KSATX0401PUR	TXV PURON HSO					X		X		
KSATX0501PUR	TXV PURON HSO						X		X	X
KSASH0601COP	SOUND HOOD	X	X	X	X			X		
KSASH2101COP	SOUND HOOD					X	X		X	X
KAALP0401PUR	LOW PRESSURE SWITCH	X	X	X	X	X	X	X	X	X
KAAHI0501PUR	HIGH PRESSURE SWITCH	X	X	X	X	X	X	X	X	X

† Required accessories include ball bearing fan motor, compressor start assist (CAP / Relay), crankcase heater, evaporator freeze stat, hard shut–off TXV.
X = Accessory / S – Standard

ACCESSORY USAGE GUIDELINE

ACCESSORY	REQUIRED FOR LOW–AMBIENT COOLING APPLICATIONS (Below 55°F/12.8°C)	REQUIRED FOR LONG LINE APPLICATIONS* (Over 80 ft./24.38 m)	REQUIRED FOR SEA COAST APPLICATIONS (Within 2 miles/3.22 km)
Ball Bearing Fan Motor	Yes†	No	No
Compressor Start Assist Capacitor and Relay	Yes	Yes	No
Crankcase Heater	Yes	Yes	No
Evaporator Freeze Thermostat	Yes	No	No
Hard Shut–Off TXV	Yes	Yes	Yes
Liquid Line Solenoid Valve	No	No	No
Motor Master® Control or Low–ambient Pressure Switch	Yes	No	No
Support Feet	Recommended	No	Recommended
Winter Start Control	Yes	No	No

* For tubing line sets between 80 and 200 ft. (24.38 and 60.96 m) and/or 20 ft. (6.09 m) vertical differential, refer to Residential Split–System Longline Application Guideline.

† Required for Low–Ambient Controller (full modulation feature) MotorMaster® Control.

Accessory Description and Usage (Listed Alphabetically)

1. Ball-Bearing Fan Motor

A fan motor with ball bearings which permits speed reduction while maintaining bearing lubrication.

Usage Guideline:

Required on all units when MotorMaster® is used.

2. Compressor Start Assist - Capacitor and Relay

Start capacitor and relay gives a ”hard” boost to compressor motor at each start up.

Usage Guideline:

Required for reciprocating compressors in the following applications:

Long line

Low ambient cooling

Hard shut off expansion valve on indoor coil

Liquid line solenoid on indoor coil

Required for single-phase scroll compressors in the following applications:

Long line

Low ambient cooling

Suggested for all compressors in areas with a history of low voltage problems.

3. Compressor Start Assist — PTC Type

Solid state electrical device which gives a ”soft” boost to the compressor at each start-up.

Usage Guideline:

Suggested in installations with marginal power supply.

4. Crankcase Heater

An electric resistance heater which mounts to the base of the compressor to keep the lubricant warm during off cycles. Improves compressor lubrication on restart and minimizes the chance of liquid slugging.

Usage Guideline:

Required in low ambient cooling applications.

Required in long line applications.

Suggested in all commercial applications.

5. Cycle Protector

The cycle protector is designed to prevent compressor short cycling. This control provides an approximate 5-minute delay after power to the compressor has been interrupted for any reason, including power outage, protector control trip, thermostat jiggling, or normal cycling.

6. Evaporator Freeze Thermostat

An SPST temperature-actuated switch that stops unit operation when evaporator reaches freeze-up conditions.

Usage Guideline:

Required when low ambient kit has been added.

7. Low-Ambient Pressure Switch Kit

A long life pressure switch which is mounted to outdoor unit service valve. It is designed to cycle the outdoor fan motor in order to maintain head pressure within normal operating limits (approximately 100 psig to 225 psig). The control will maintain working head pressure at low-ambient temperatures down to 0°F (-18°C) when properly installed.

Usage Guideline:

A Low-Ambient Pressure Switch or MotorMaster® Low-Ambient Controller must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

8. MotorMaster® Low-Ambient Controller

A fan-speed control device activated by a temperature sensor, designed to control condenser fan motor speed in response to the saturated, condensing temperature during operation in cooling mode only. For outdoor temperatures down to -20°F (-28.9°C), it maintains condensing temperature at 100°F ±10°F (37.8°C ± 5.5°C).

Usage Guideline:

A MotorMaster® Low Ambient Controller or Low-Ambient Pressure Switch must be used when cooling operation is used at outdoor temperatures below 55°F (12.8°C).

Suggested for all commercial applications.

9. Outdoor Air Temperature Sensor

Designed for use with Carrier Thermostats listed in this publication. This device enables the thermostat to display the outdoor temperature. This device also

is required to enable special thermostat features such as auxiliary heat lock out.

Usage Guideline:

Suggested for all Carrier thermostats listed in this publication.

Accessory Description and Usage (Listed Alphabetically) (Continued)

10. Sound Hood

Wraparound sound reducing cover for the compressor. Reduces the sound level by about 2 dBA.

Usage Guideline:

Suggested when unit is installed closer than 15 ft (4.57 m) to quiet areas, bedrooms, etc.

Suggested when unit is installed between two houses less than 10 ft (3.05 m) apart.

11. Support Feet

Four stick-on plastic feet that raise the unit 4 in. (101.6 mm) above the mounting pad. This allows sand, dirt, and other debris to be flushed from the unit base, minimizing corrosion.

Usage Guideline:

Suggested in the following applications:

Coastal installations.

Windy areas or where debris is normally circulating.

Rooftop installations.

For improved sound ratings.

12. Thermostatic Expansion Valve (TXV)

A modulating flow-control valve which meters refrigerant liquid flow rate into the evaporator in response to the superheat of the refrigerant gas leaving the evaporator.

Kit includes valve, adapter tubes, and external equalizer tube. Hard shut off types are available.

NOTE: When using a hard shut off TXV with single phase reciprocating compressors, a Compressor Start Assist Capacitor and Relay is required.

Usage Guideline:

Required to achieve AHRI ratings in certain equipment combinations. Refer to combination ratings.

Hard shut off TXV or LLS required in air conditioner long line applications.

Required for use on all zoning systems.

13. Time-Delay Relay

An SPST delay relay which briefly continues operation of indoor blower motor to provide additional cooling after the compressor cycles off.

NOTE: Most indoor unit controls include this feature. For those that do not, use the guideline below.

Usage Guideline:

For improved efficiency ratings for certain combinations of indoor and outdoor units. Refer to AHRI Unitary Directory.

14. Winter Start Control

This control is designed to alleviate nuisance opening of the low-pressure switch by bypassing it for the first 3 minutes of operation.

ELECTRICAL DATA

UNIT SIZE	V/PH	OPER VOLTS*		COMPR		FAN	MCA	MIN WIRE SIZE† 60° C	MIN WIRE SIZE† 75° C	MAX LENGTH ft. (m)‡ 60° C	MAX LENGTH ft. (m)‡ 75° C	MAX FUSE** or CKT BRK AMPS
		MAX	MIN	LRA	RLA	FLA						
18–31	208/230/1–60	253	197	48.0	9.0	0.50	11.8	14	14	67 (20.4)	64 (19.5)	20
24–30				58.3	13.5	0.75	17.7	14	14	46 (14.0)	43 (13..1)	25
30–30				64.0	12.8	0.75	16.8	14	14	44 (13.4)	41 (12.5)	25
36–30				77.0	14.1	0.50	18.1	12	12	57 (17.4)	54 (16.5)	30
42–30				112.0	17.9	1.20	23.6	10	10	85 (25.9)	81 (24.7)	40
48–31				109.0	19.9	1.20	26.1	10	10	70 (21.3)	67 (20.4)	40
49–30				117.0	21.8	1.20	26.1	10	10	70 (21.3)	67 (20.4)	40
60–30				135.0	21.4	1.20	28.0	8	10	91 (27.7)	56 (17.1)	40
61–30				134.0	25.0	1.20	32.5	8	10	94 (28.7)	58 (17.7)	50

* Permissible limits of the voltage range at which the unit will operate satisfactorily

† If wire is applied at ambient greater than 30°C, consult table 310–16 of the NEC (NFPA 70). The ampacity of non–metallic–sheathed cable (NM), trade name ROMEX, shall be that of 60°C conditions, per the NEC (NFPA 70) Article 334–80. If other than uncoated (no–plated), 60 or 75°C insulation, copper wire (solid wire for 10 AWG or smaller, stranded wire for larger than 10 AWG) is used, consult applicable tables of the NEC (NFPA 70).

‡ Length shown is as measured one way along wire path between unit and service panel for voltage drop not to exceed 2%.

** Time–Delay fuse.

FLA – Full Load Amps

LRA – Locked Rotor Amps

MCA – Minimum Circuit Amps

RLA – Rated Load Amps

NOTE: Control circuit is 24–V on all units and requires external power source. Copper wire must be used from service disconnect to unit. All motors/compressors contain internal overload protection.

Complies with 2007 requirements of ASHRAE Standards 90.1

24ABC6

A-WEIGHTED SOUND POWER LEVEL (dBA)

Unit Size – Voltage, Series	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
018–31	76	52.5	59.0	65.5	70.5	64.5	59.0	54.5
024–30	76	57.5	64.0	69.0	71.0	69.0	64.5	60.0
030–30	76	55.0	63.5	68.0	69.5	67.0	63.5	58.5
036–30	76	50.5	59.5	64.5	70.5	62.0	59.5	54.5
042–30	78	52.5	62.0	66.0	73.5	68.0	62.0	55.5
048–31	78	57.5	61.5	66.0	70.5	65.5	59.5	53.5
049–30	78	51.5	62.0	67.5	73.5	69.0	64.5	62.0
060–30	78	55.0	62.5	67.5	70.5	65.0	61.0	53.5
061–30	78	56.5	63.0	65.5	69.0	67.0	61.5	56.0

NOTE: Tested in accordance with AHRI Standard 270–08 (not listed in AHRI).

A-WEIGHTED SOUND POWER LEVEL (dBA) WITH SOUND SHIELD

Unit Size – Voltage, Series	Standard Rating (dBA)	TYPICAL OCTAVE BAND SPECTRUM (dBA without tone adjustment)						
		125	250	500	1000	2000	4000	8000
018–31	74	55.5	59.0	65.0	68.5	63.5	58.0	52.0
024–30	75	58.0	64.0	69.0	70.5	68.5	64.5	59.5
030–30	75	55.5	63.0	68.0	69.0	67.0	63.0	58.5
036–30	74	51.5	58.5	62.0	65.0	61.0	58.0	52.0
042–30	76	53.0	62.0	65.5	72.0	65.0	61.0	54.0
048–31	76	58.5	61.5	66.0	69.0	64.0	58.5	51.0
049–30	76	53.0	61.5	67.5	72.0	68.0	61.5	59.0
060–30	75	56.5	62.5	66.5	68.0	63.0	59.5	51.5
061–30	75	57.0	63.0	65.5	67.0	65.5	59.0	52.5

NOTE: Tested in accordance with AHRI Standard 270–08 (not listed in AHRI).

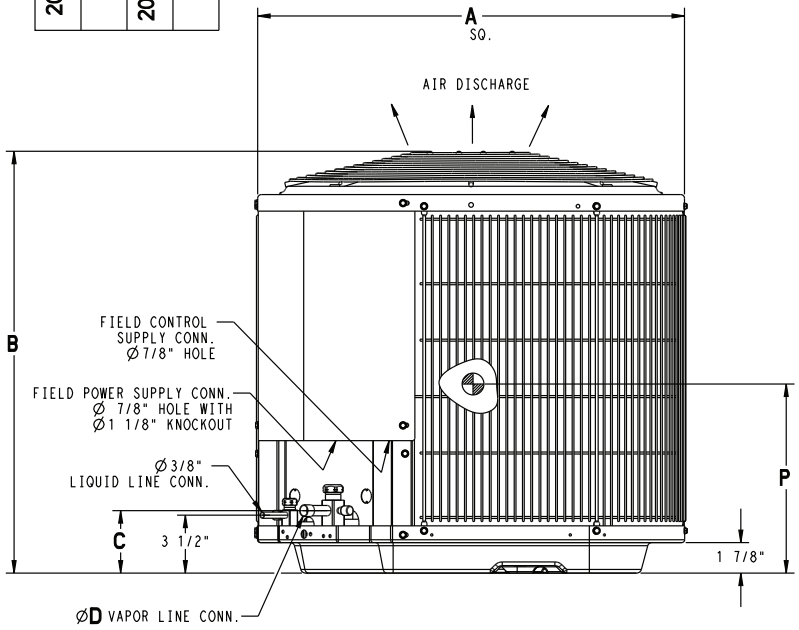
CHARGING SUBCOOLING (TXV-TYPE EXPANSION DEVICE)

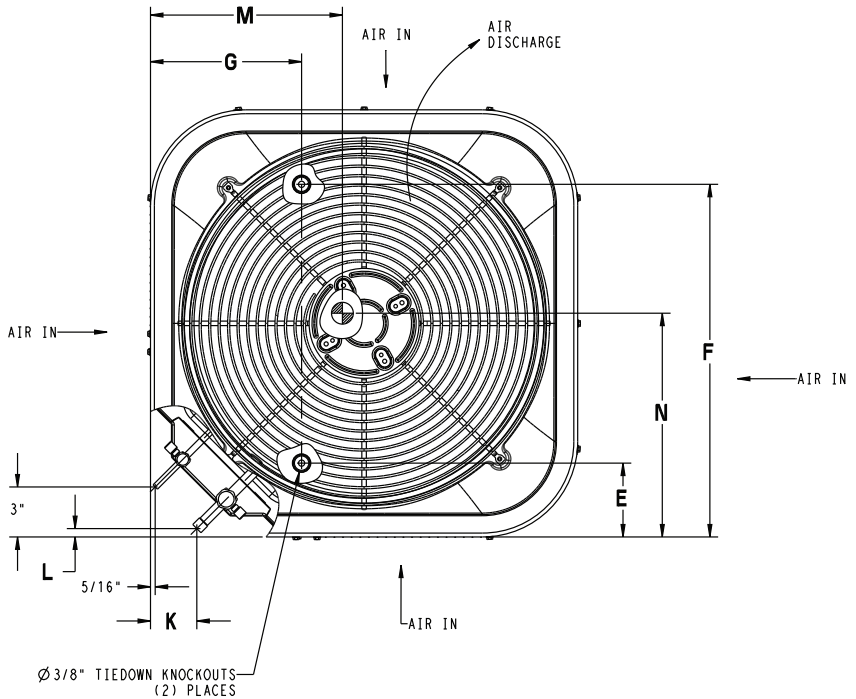
UNIT SIZE–VOLTAGE, SERIES	REQUIRED SUBCOOLING °F (°C)
18–31	10 (5.6)
24–30	10 (5.6)
30–30	10 (5.6)
36–30	10 (5.6)
42–30	9 (5.0)
48–31	10 (5.6)
49–30	8 (4.4)
60–30	9 (5.0)
61–30	9 (5.0)

DIMENSIONS - ENGLISH

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (lbs)	SHIPPING WEIGHT (lbs)	SHIPPING DIMENSIONS (L x W x H)
24ABC618	0	X	O	O	O	23 1/8"	28 11/16"	3 3/4"	3/4"	4 7/16"	18 1/16"	7 13/16"	2 13/16"	1/2"	13"	12"	13"	118	141	24 1/4" X 27 3/8" X 32 9/16"
24ABC624	0	X	O	O	O	31 3/16"	28 5/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	9 1/8"	2 13/16"	1/2"	16"	16"	13"	147	183	32 3/8" X 35 1/2" X 32 9/16"
24ABC630	0	X	O	O	O	31 3/16"	32 5/16"	3 3/4"	3/4"	6 9/16"	24 11/16"	9 1/8"	2 13/16"	1/2"	15 1/2"	16"	14 1/4"	153	188	32 3/8" X 35 1/2" X 35 15/16"
24ABC636	0	X	O	O	O	35"	28 5/16"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	16"	16"	13"	165	204	36 1/8" X 39 5/16" X 32 9/16"
24ABC642	0	X	O	O	O	35"	39 1/8"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	16 1/2"	17 1/2"	17 1/2"	213	254	36 1/8" X 39 5/16" X 42 3/4"
24ABC648	0	X	O	O	O	35"	32 5/16"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	17"	17 1/2"	14 1/4"	231	274	36 1/8" X 39 5/16" X 35 15/16"
24ABC660	0	X	O	O	O	35"	45 15/16"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	16 1/2"	17"	16 1/4"	272	310	36 1/8" X 39 5/16" X 49 9/16"
24ABC618	1	X	O	O	O	25 3/4"	28 11/16"	3 3/4"	3/4"	4 7/16"	21 1/4"	7 13/16"	2 13/16"	1/2"	13 5/8"	13 1/2"	12 3/4"	125	154	26 7/8" X 30 1/16" X 32 9/16"
24ABC661	0	X	O	O	O	35"	45 15/16"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	16 1/2"	17"	16 1/4"	272	310	36 1/8" X 39 5/16" X 49 9/16"
24ABC648	1	X	O	O	O	35"	39 1/8"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	17 1/2"	16 1/2"	15"	264	317	36 1/8" X 39 5/16" X 42 3/4"
24ABC649	0	X	O	O	O	35"	39 1/8"	3 7/8"	7/8"	6 9/16"	28 7/16"	9 1/8"	2 15/16"	5/8"	17 1/2"	16 1/2"	15"	231	269	36 1/8" X 39 5/16" X 42 3/4"
		208-230-1-60	230-1-60	208/230-3-60	460-3-60															

X = YES
O = NO



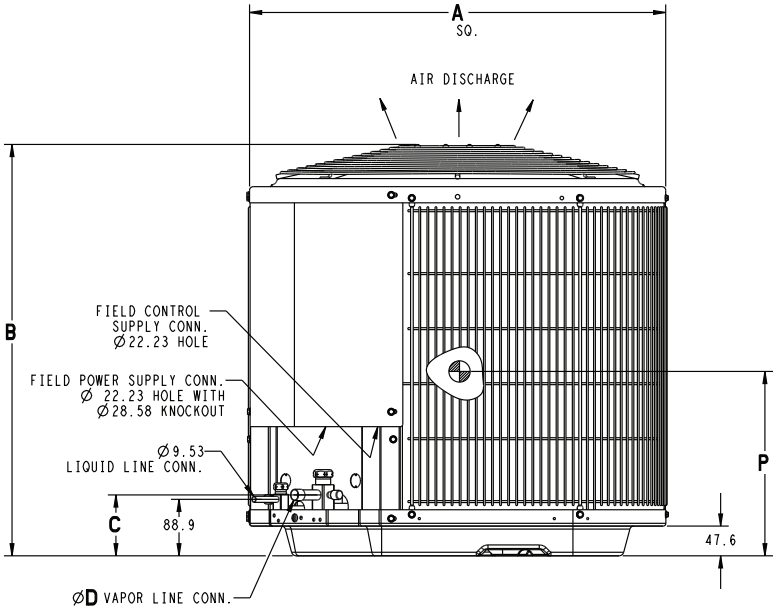


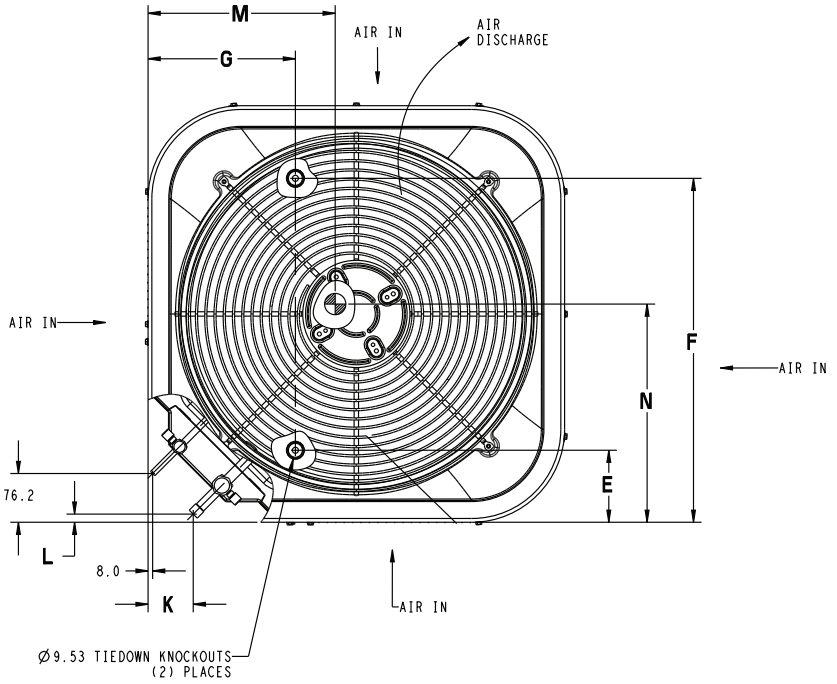
UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
18	26" X 26"
24,30	31 1/2" X 31 1/2"
36, 48, 49, 60, 61	35" X 35"

DIMENSIONS - SI

UNIT	SERIES	ELECTRICAL CHARACTERISTICS				A	B	C	D	E	F	G	K	L	M	N	P	OPERATING WEIGHT (Kgs)	SHIPPING WEIGHT (Kgs)	SHIPPING DIMENSIONS (L x W x H)
24ABC618	0	X	O	O	O	587.3	728.7	95.2	19.0	112.7	458.8	198.4	71.4	12.7	330.2	304.8	330.2	53.4	64.0	616.0 X 695.3 X 827.1
24ABC624	0	X	O	O	O	792.2	719.2	95.2	19.0	166.7	627.1	231.8	71.4	12.7	406.4	406.4	330.2	66.5	82.8	822.3 X 901.7 X 827.1
24ABC630	0	X	O	O	O	792.2	820.8	95.2	19.0	166.7	627.1	231.8	71.4	12.7	393.7	406.4	362.0	69.3	85.2	822.3 X 901.7 X 912.8
24ABC636	0	X	O	O	O	889.0	719.2	98.6	22.2	166.7	722.3	231.8	74.6	15.9	406.4	406.4	330.2	74.8	92.5	917.6 X 998.6 X 827.1
24ABC642	0	X	O	O	O	889.0	993.8	98.6	22.2	166.7	722.3	231.8	74.6	15.9	419.1	444.5	444.5	96.4	115.2	917.6 X 998.6 X 1085.8
24ABC648	0	X	O	O	O	889.0	820.8	98.6	22.2	166.7	722.3	231.8	74.6	15.9	431.8	444.5	362.0	104.8	124.3	917.6 X 998.6 X 912.8
24ABC660	0	X	O	O	O	889.0	1166.8	98.6	22.2	166.7	722.3	231.8	74.6	15.9	419.1	431.8	412.8	123.4	140.6	917.6 X 998.6 X 1258.9
24ABC618	1	X	O	O	O	654.0	728.7	95.2	19.0	112.7	539.8	198.4	71.4	12.7	346.1	342.9	323.9	56.7	69.9	682.6 X 763.6 X 827.1
24ABC661	0	X	O	O	O	889.0	1166.8	98.6	22.2	166.7	722.3	231.8	74.6	15.9	419.1	431.8	412.8	123.4	140.6	917.6 X 998.6 X 1258.9
24ABC648	1	X	O	O	O	889.0	993.8	98.6	22.2	166.7	722.3	231.8	74.6	15.9	444.5	419.1	381.0	119.7	143.8	917.6 X 998.6 X 1085.8
24ABC649	0	X	O	O	O	889.0	993.8	98.6	22.2	166.7	722.3	231.8	74.6	15.9	444.5	419.1	381.0	104.8	122.0	917.6 X 998.6 X 1085.8
		208-230-1-60	230-1-60	208/230-3-60	460-3-60															

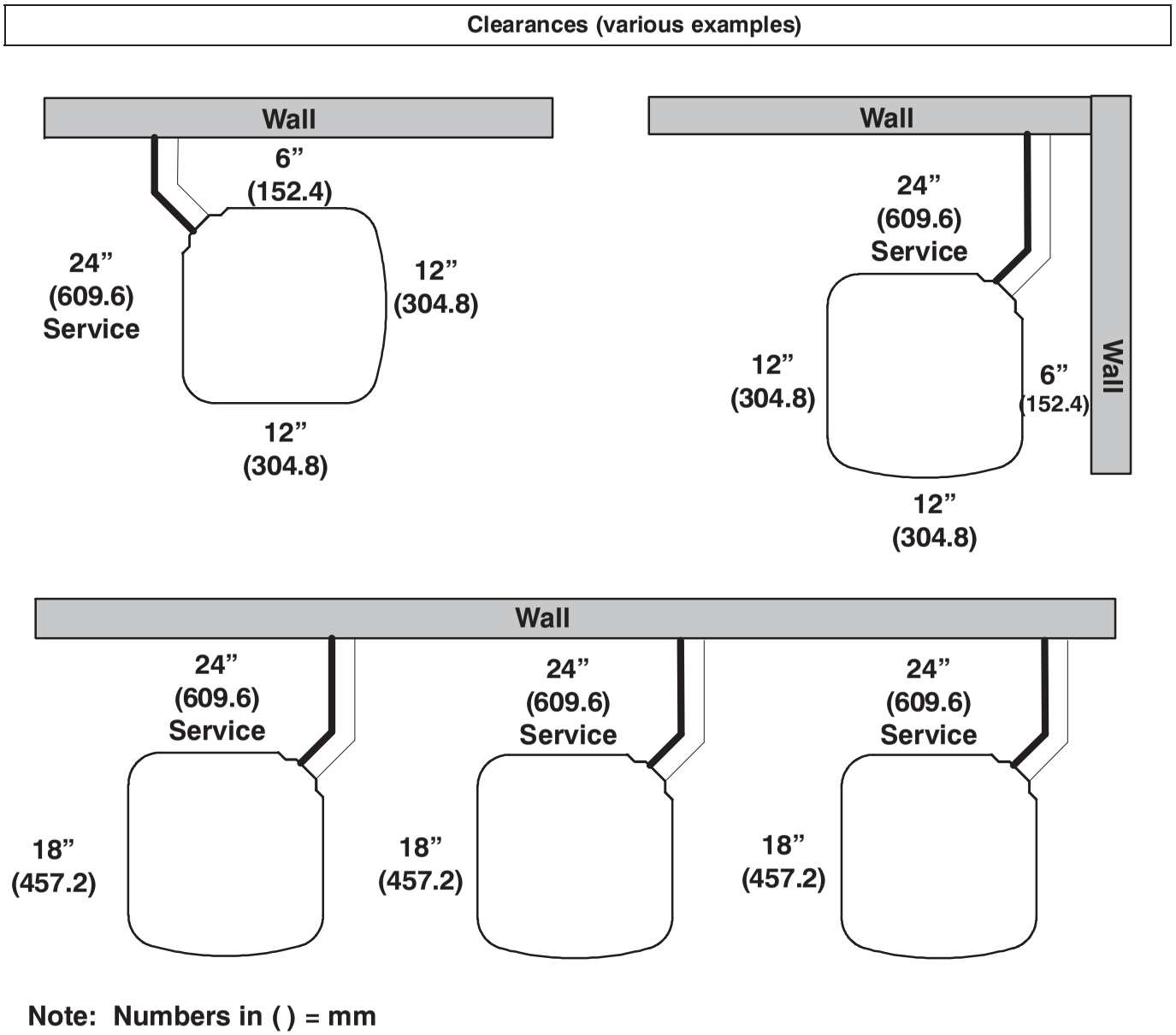
X = YES
O = NO





UNIT SIZE	MINIMUM MOUNTING PAD DIMENSIONS
18	660.4 X 660.4
24,30	800.1 X 800.1
36, 48, 49, 60, 61	889.0 X 889.0

CLEARANCES



IMPORTANT: When installing multiple units in an alcove, roof well, or partially enclosed area, ensure there is adequate ventilation to prevent re-circulation of discharge air.

COMBINATION RATINGS

AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3632294	24ABC618A**31	†CNPV*1917A**+TDR		18,000	12.0	14.5
3630458	24ABC618A**31	CAP**1814A**	58CV(A,X)070−12	18,000	12.5	15.5
3631465	24ABC618A**31	CAP**1814A**	58PH*045−08	18,000	13.0	15.5
3631699	24ABC618A**31	CAP**1814A**+TDR		18,000	11.5	13.5
3630459	24ABC618A**31	CAP**2414A**	58CV(A,X)070−12	18,000	13.0	16.0
3631466	24ABC618A**31	CAP**2414A**	58PH*045−08	18,000	13.0	16.0
3631700	24ABC618A**31	CAP**2414A**+TDR		18,000	11.5	14.0
3630460	24ABC618A**31	CAP**2417A**	58CV(A,X)070−12	18,000	13.0	16.0
3630520	24ABC618A**31	CAP**2417A**	58CV(A,X)090−16	18,000	13.0	16.0
3630806	24ABC618A**31	CAP**2417A**	58ME(B,C)040−12	18,000	13.0	16.0
3630872	24ABC618A**31	CAP**2417A**	58ME(B,C)060−12	18,000	13.0	16.0
3631136	24ABC618A**31	CAP**2417A**	58MV(B,C)060−14	18,000	13.0	16.0
3631467	24ABC618A**31	CAP**2417A**	58PH*045−08	18,000	13.0	16.0
3631926	24ABC618A**31	CAP**2417A**	58UVB060−14	18,000	13.0	16.0
3644907	24ABC618A**31	CAP**2417A**	58VLR105−12	18,000	13.0	16.0
3644906	24ABC618A**31	CAP**2417A**	58VMR105−12	18,000	13.0	16.0
4137516	24ABC618A**31	CAP**2417A**	OVLAAB036098	18,000	13.0	16.0
4137515	24ABC618A**31	CAP**2417A**	OVMAAB036098	18,000	13.0	16.0
3631701	24ABC618A**31	CAP**2417A**+TDR		18,000	11.5	14.0
3901699	24ABC618A**31	CAP**3014A**	58CV(A,X)070−12	18,000	13.0	16.0
3901700	24ABC618A**31	CAP**3014A**	58PH*045−08	18,000	13.0	16.0
3901698	24ABC618A**31	CAP**3014A**+TDR		18,000	12.0	14.0
3901703	24ABC618A**31	CAP**3017A**	58CV(A,X)090−16	18,000	13.0	16.0
3901705	24ABC618A**31	CAP**3017A**	58ME(B,C)060−12	18,000	13.0	16.0
3901704	24ABC618A**31	CAP**3017A**	58MEB040−12	18,000	13.0	16.0
3901702	24ABC618A**31	CAP**3017A**	58MV(B,C)060−14	18,000	13.0	16.0
3901707	24ABC618A**31	CAP**3017A**	58VLR105−12	18,000	13.0	16.0
3901706	24ABC618A**31	CAP**3017A**	58VMR105−12	18,000	13.0	16.0
3901701	24ABC618A**31	CAP**3017A**+TDR		18,000	12.0	14.0
3901709	24ABC618A**31	CAP**3614A**	58CV(A,X)070−12	18,000	13.0	16.0
3901710	24ABC618A**31	CAP**3614A**	58PH*045−08	18,000	13.0	16.0
3901708	24ABC618A**31	CAP**3614A**+TDR		18,000	12.0	14.5
3901713	24ABC618A**31	CAP**3617A**	58CV(A,X)090−16	18,000	13.0	16.0
3901715	24ABC618A**31	CAP**3617A**	58ME(B,C)060−12	18,000	13.0	16.0
3901714	24ABC618A**31	CAP**3617A**	58MEB040−12	18,000	13.0	16.0
3901712	24ABC618A**31	CAP**3617A**	58MV(B,C)060−14	18,000	13.0	16.0
3901717	24ABC618A**31	CAP**3617A**	58VLR105−12	18,000	13.0	16.0
3901716	24ABC618A**31	CAP**3617A**	58VMR105−12	18,000	13.0	16.0
3901711	24ABC618A**31	CAP**3617A**+TDR		18,000	12.0	14.5
3901718	24ABC618A**31	CAP**3619A**+TDR		18,000	12.0	14.5
3901720	24ABC618A**31	CAP**3621A**	58MV(B,C)080−14	18,000	13.0	16.0
4141760	24ABC618A**31	CAP**3621A**	58UVB080−14	18,000	13.0	16.0
3901719	24ABC618A**31	CAP**3621A**+TDR		18,000	12.0	14.5
3630464	24ABC618A**31	CNPH*2417A**	58CV(A,X)070−12	18,000	13.0	16.0
3630522	24ABC618A**31	CNPH*2417A**	58CV(A,X)090−16	18,000	13.0	16.0
4137523	24ABC618A**31	CNPH*2417A**	58HDV040−−12	18,400	13.0	15.5
4137524	24ABC618A**31	CNPH*2417A**	58HDV060−−12	18,400	13.0	15.5
3630808	24ABC618A**31	CNPH*2417A**	58ME(B,C)040−12	18,000	13.0	16.0
3630874	24ABC618A**31	CNPH*2417A**	58ME(B,C)060−12	18,000	13.0	16.0
3631138	24ABC618A**31	CNPH*2417A**	58MV(B,C)060−14	18,000	13.0	16.0
3631202	24ABC618A**31	CNPH*2417A**	58MV(B,C)080−14	18,000	13.0	16.0
3631429	24ABC618A**31	CNPH*2417A**	58MVB040−14	18,000	13.0	16.0
3631471	24ABC618A**31	CNPH*2417A**	58PH*045−08	18,000	13.0	16.0
3644913	24ABC618A**31	CNPH*2417A**	58VLR105−12	18,000	13.0	16.0
3644912	24ABC618A**31	CNPH*2417A**	58VMR105−12	18,000	13.0	16.0
4137526	24ABC618A**31	CNPH*2417A**	OVLAAB036098	18,400	13.0	16.0
4137525	24ABC618A**31	CNPH*2417A**	OVMAAB036098	18,400	13.0	16.0
3631705	24ABC618A**31	CNPH*2417A**+TDR		18,000	12.0	14.5
3630461	24ABC618A**31	CNPV*1814A**	58CV(A,X)070−12	18,000	13.0	15.5
3631468	24ABC618A**31	CNPV*1814A**	58PH*045−08	18,000	13.0	15.5
3631702	24ABC618A**31	CNPV*1814A**+TDR		18,000	11.5	14.0
3632247	24ABC618A**31	CNPV*1917A**	58CV(A,X)070−12	18,000	13.0	16.0
3632250	24ABC618A**31	CNPV*1917A**	58CV(A,X)090−16	18,000	13.0	16.0
4137517	24ABC618A**31	CNPV*1917A**	58HDV040−−12	18,600	13.0	16.0
3632259	24ABC618A**31	CNPV*1917A**	58ME(B,C)040−12	18,000	13.0	16.0
3632262	24ABC618A**31	CNPV*1917A**	58ME(B,C)060−12	18,000	13.0	16.0
3632272	24ABC618A**31	CNPV*1917A**	58MV(B,C)060−14	18,000	13.0	16.0
3632285	24ABC618A**31	CNPV*1917A**	58PH*045−08	18,000	13.0	16.0
3632316	24ABC618A**31	CNPV*1917A**	58UVB060−14	18,000	13.0	16.0
3644909	24ABC618A**31	CNPV*1917A**	58VLR105−12	18,000	13.0	16.0
3644908	24ABC618A**31	CNPV*1917A**	58VMR105−12	18,000	13.0	16.0
4137519	24ABC618A**31	CNPV*1917A**	OVLAAB036098	18,400	13.0	16.0
4137518	24ABC618A**31	CNPV*1917A**	OVMAAB036098	18,400	13.0	16.0

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COMBINATION RATINGS

AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3630462	24ABC618A**31	CNPV*2414A**	58CV(A,X)070−12	18,000	13.0	16.0
3631469	24ABC618A**31	CNPV*2414A**	58PH*045−08	18,000	13.0	16.0
3631703	24ABC618A**31	CNPV*2414A**+TDR		18,000	11.5	14.0
3630463	24ABC618A**31	CNPV*2417A**	58CV(A,X)070−12	18,000	13.0	16.0
3630521	24ABC618A**31	CNPV*2417A**	58CV(A,X)090−16	18,000	13.0	16.0
4137520	24ABC618A**31	CNPV*2417A**	58HDV040−−12	18,400	13.0	15.5
4137529	24ABC618A**31	CNPV*2417A**	58HDV060−−12	18,000	13.0	15.5
3630807	24ABC618A**31	CNPV*2417A**	58ME(B,C)040−12	18,000	13.0	16.0
3630873	24ABC618A**31	CNPV*2417A**	58ME(B,C)060−12	18,000	13.0	16.0
3631137	24ABC618A**31	CNPV*2417A**	58MV(B,C)060−14	18,000	13.0	16.0
3631470	24ABC618A**31	CNPV*2417A**	58PH*045−08	18,000	13.0	16.0
3631927	24ABC618A**31	CNPV*2417A**	58UVB060−14	18,000	13.0	16.0
3644911	24ABC618A**31	CNPV*2417A**	58VLR105−12	18,000	13.0	16.0
3644910	24ABC618A**31	CNPV*2417A**	58VMR105−12	18,000	13.0	16.0
4137522	24ABC618A**31	CNPV*2417A**	OVLAAB036098	18,400	13.0	16.0
4137521	24ABC618A**31	CNPV*2417A**	OVMAAB036098	18,400	13.0	16.0
3631704	24ABC618A**31	CNPV*2417A**+TDR		18,000	11.5	14.0
3630465	24ABC618A**31	CSPH*2412A**	58CV(A,X)070−12	18,000	13.0	16.0
3630523	24ABC618A**31	CSPH*2412A**	58CV(A,X)090−16	18,000	13.0	16.0
3630768	24ABC618A**31	CSPH*2412A**	58HDV040−−12	18,000	13.0	15.5
3630777	24ABC618A**31	CSPH*2412A**	58HDV060−−12	18,000	13.0	15.5
3630809	24ABC618A**31	CSPH*2412A**	58ME(B,C)040−12	18,000	13.0	16.0
3630875	24ABC618A**31	CSPH*2412A**	58ME(B,C)060−12	18,000	13.0	16.0
3631139	24ABC618A**31	CSPH*2412A**	58MV(B,C)060−14	18,000	13.0	16.0
3631203	24ABC618A**31	CSPH*2412A**	58MV(B,C)080−14	18,000	13.0	16.0
3631430	24ABC618A**31	CSPH*2412A**	58MVB040−14	18,000	13.0	16.0
3631472	24ABC618A**31	CSPH*2412A**	58PH*045−08	18,000	13.0	16.0
3644915	24ABC618A**31	CSPH*2412A**	58VLR105−12	18,000	13.0	16.0
3644914	24ABC618A**31	CSPH*2412A**	58VMR105−12	18,000	13.0	16.0
4137528	24ABC618A**31	CSPH*2412A**	OVLAAB036098	18,400	13.0	16.0
4137527	24ABC618A**31	CSPH*2412A**	OVMAAB036098	18,400	13.0	16.0
3631707	24ABC618A**31	CSPH*2412A**+TDR		18,000	12.0	14.0
3804392	24ABC618A**31	FB4CNF018		18,000	12.5	14.5
3693276	24ABC618A**31	FB4CNF018+TXV		18,000	13.0	15.5
3804393	24ABC618A**31	FB4CNF024		18,000	12.5	14.5
3693277	24ABC618A**31	FB4CNF024+TXV		18,000	13.0	15.5
3631720	24ABC618A**31	FE4ANF002+UI		18,000	13.0	16.0
3631750	24ABC618A**31	FF1ENP018		18,000	11.5	14.0
3631751	24ABC618A**31	FF1ENP019		18,000	12.5	15.5
3631752	24ABC618A**31	FF1ENP024		18,000	11.5	14.0
3631754	24ABC618A**31	FF1ENP025		18,000	13.0	16.0
3631816	24ABC618A**31	FV4CNF002		18,000	13.0	16.0
3632311	24ABC618A**31	FX4DNF019		18,000	13.0	16.0
3632312	24ABC618A**31	FX4DNF025		18,000	13.0	16.0
3804394	24ABC618A**31	FY5BNF018		18,000	12.0	14.0
3693289	24ABC618A**31	FY5BNF018+TXV		18,000	12.0	14.5
3804395	24ABC618A**31	FY5BNF024		18,000	12.0	14.0
3693290	24ABC618A**31	FY5BNF024+TXV		18,000	12.0	14.5
3631725	24ABC624A**30	†CNPV*3117A**+TDR		23,600	12.0	14.5
3630467	24ABC624A**30	CAP**2414A**	58CV(A,X)070−12	22,800	12.5	15.5
3631474	24ABC624A**30	CAP**2414A**	58PH*045−08	23,000	12.5	15.5
4744653	24ABC624A**30	CAP**2414A**	59*P5A040E14**10	24,000	12.0	14.5
3631726	24ABC624A**30	CAP**2414A**+TDR		23,000	11.5	14.0
3630468	24ABC624A**30	CAP**2417A**	58CV(A,X)070−12	22,800	12.5	15.5
3630525	24ABC624A**30	CAP**2417A**	58CV(A,X)090−16	22,800	13.0	16.0
3630811	24ABC624A**30	CAP**2417A**	58ME(B,C)040−12	23,400	13.0	16.0
3630877	24ABC624A**30	CAP**2417A**	58ME(B,C)060−12	23,400	13.0	16.0
3630939	24ABC624A**30	CAP**2417A**	58ME(B,C)080−12	23,200	13.0	16.0
3631141	24ABC624A**30	CAP**2417A**	58MV(B,C)060−14	23,200	13.0	16.0
3631475	24ABC624A**30	CAP**2417A**	58PH*045−08	23,000	12.5	15.5
3631931	24ABC624A**30	CAP**2417A**	58UVB060−14	23,200	13.0	16.0
3644917	24ABC624A**30	CAP**2417A**	58VLR105−12	24,000	13.0	16.0
3644916	24ABC624A**30	CAP**2417A**	58VMR105−12	23,800	13.0	16.0
4744654	24ABC624A**30	CAP**2417A**	59*N*A060V17**14	24,000	12.7	15.5
4744655	24ABC624A**30	CAP**2417A**	59*N*A080V17**14	23,800	13.0	16.0
4744656	24ABC624A**30	CAP**2417A**	59*P5A040E14**10	24,000	12.0	14.5
4744657	24ABC624A**30	CAP**2417A**	59*P5A060E17**14	24,000	13.0	16.0
4255254	24ABC624A**30	CAP**2417A**	OVLAAB036098	24,000	13.0	15.5
4137530	24ABC624A**30	CAP**2417A**	OVMAAB036098	24,000	13.0	15.5
3631727	24ABC624A**30	CAP**2417A**+TDR		23,000	11.5	14.0
3630469	24ABC624A**30	CAP**3014A**	58CV(A,X)070−12	22,800	13.0	16.0
3631476	24ABC624A**30	CAP**3014A**	58PH*045−08	23,200	12.5	15.5

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COMBINATION RATINGS

AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
4744658	24ABC624A**30	CAP**3014A**	59*P5A040E14**10	24,000	12.0	14.5
3631728	24ABC624A**30	CAP**3014A**+TDR		23,200	11.5	14.0
3630470	24ABC624A**30	CAP**3017A**	58CV(A,X)070−12	23,000	13.0	16.0
3630526	24ABC624A**30	CAP**3017A**	58CV(A,X)090−16	23,000	13.0	16.0
3630812	24ABC624A**30	CAP**3017A**	58ME(B,C)040−12	23,600	13.0	16.0
3630878	24ABC624A**30	CAP**3017A**	58ME(B,C)060−12	23,600	13.0	16.0
3630940	24ABC624A**30	CAP**3017A**	58ME(B,C)080−12	23,400	13.0	16.0
3631142	24ABC624A**30	CAP**3017A**	58MV(B,C)060−14	23,200	13.0	16.0
3631477	24ABC624A**30	CAP**3017A**	58PH*045−08	23,200	13.0	16.0
3631932	24ABC624A**30	CAP**3017A**	58UVB060−14	23,200	13.0	16.0
3644919	24ABC624A**30	CAP**3017A**	58VLR105−12	24,000	13.0	16.0
3644918	24ABC624A**30	CAP**3017A**	58VMR105−12	23,800	13.0	16.0
4744659	24ABC624A**30	CAP**3017A**	59*N*A060V17**14	24,000	13.0	16.0
4744660	24ABC624A**30	CAP**3017A**	59*N*A080V17**14	24,000	13.0	16.0
4744661	24ABC624A**30	CAP**3017A**	59*P5A040E14**10	24,000	12.0	14.5
4744662	24ABC624A**30	CAP**3017A**	59*P5A060E17**14	24,000	13.0	16.0
4255255	24ABC624A**30	CAP**3017A**	OVLAAB036098	24,000	13.0	16.0
4137532	24ABC624A**30	CAP**3017A**	OVMAAB036098	24,000	13.0	15.5
3631729	24ABC624A**30	CAP**3017A**+TDR		23,200	11.5	14.0
3630471	24ABC624A**30	CAP**3614A**	58CV(A,X)070−12	23,000	13.0	16.0
3631478	24ABC624A**30	CAP**3614A**	58PH*045−08	23,200	13.0	16.0
3631730	24ABC624A**30	CAP**3614A**+TDR		23,200	11.5	14.0
3630472	24ABC624A**30	CAP**3617A**	58CV(A,X)070−12	23,000	13.0	16.0
3630527	24ABC624A**30	CAP**3617A**	58CV(A,X)090−16	23,000	13.0	16.0
3630813	24ABC624A**30	CAP**3617A**	58ME(B,C)040−12	23,600	13.0	16.0
3630879	24ABC624A**30	CAP**3617A**	58ME(B,C)060−12	23,800	13.0	16.0
3630941	24ABC624A**30	CAP**3617A**	58ME(B,C)080−12	23,600	13.0	16.0
3631143	24ABC624A**30	CAP**3617A**	58MV(B,C)060−14	23,400	13.0	16.0
3631479	24ABC624A**30	CAP**3617A**	58PH*045−08	23,400	13.0	16.0
3631933	24ABC624A**30	CAP**3617A**	58UVB060−14	23,400	13.0	16.0
3644921	24ABC624A**30	CAP**3617A**	58VLR105−12	24,000	13.0	16.0
3644920	24ABC624A**30	CAP**3617A**	58VMR105−12	24,000	13.0	16.0
3631731	24ABC624A**30	CAP**3617A**+TDR		23,200	11.5	14.0
3630769	24ABC624A**30	CAP**3619A**	58HDV040−−12	23,400	12.5	15.5
3630778	24ABC624A**30	CAP**3619A**	58HDV060−−12	23,600	12.5	15.5
3631733	24ABC624A**30	CAP**3619A**+TDR		23,200	11.5	14.0
3630528	24ABC624A**30	CAP**3621A**	58CV(A,X)090−16	23,000	13.0	16.0
3630595	24ABC624A**30	CAP**3621A**	58CV(A,X)110−20	23,200	13.0	16.0
3630814	24ABC624A**30	CAP**3621A**	58ME(B,C)040−12	23,800	13.0	16.0
3630880	24ABC624A**30	CAP**3621A**	58ME(B,C)060−12	23,800	13.0	16.0
3630942	24ABC624A**30	CAP**3621A**	58ME(B,C)080−12	23,600	13.0	16.0
3631144	24ABC624A**30	CAP**3621A**	58MV(B,C)060−14	23,400	13.0	16.0
3631204	24ABC624A**30	CAP**3621A**	58MV(B,C)080−14	23,000	13.0	16.0
3631255	24ABC624A**30	CAP**3621A**	58MV(B,C)080−20	22,800	13.0	16.0
3631319	24ABC624A**30	CAP**3621A**	58MV(B,C)100−20	23,000	13.0	16.0
3631934	24ABC624A**30	CAP**3621A**	58UVB060−14	23,400	13.0	16.0
3631994	24ABC624A**30	CAP**3621A**	58UVB080−14	23,000	13.0	16.0
3632046	24ABC624A**30	CAP**3621A**	58UVB080−20	22,800	13.0	16.0
3632110	24ABC624A**30	CAP**3621A**	58UVB100−20	23,000	13.0	16.0
3644923	24ABC624A**30	CAP**3621A**	58VLR105−12	24,000	13.0	16.0
3644922	24ABC624A**30	CAP**3621A**	58VMR105−12	24,000	13.0	16.0
3631732	24ABC624A**30	CAP**3621A**+TDR		23,200	11.5	14.0
3901725	24ABC624A**30	CAP**4221A**	58CV(A,X)110−20	24,000	13.0	16.0
3901722	24ABC624A**30	CAP**4221A**	58MV(B,C)080−14	24,000	13.0	16.0
3901723	24ABC624A**30	CAP**4221A**	58MV(B,C)080−20	24,000	13.0	16.0
3901724	24ABC624A**30	CAP**4221A**	58MV(B,C)100−20	24,000	13.0	16.0
4141761	24ABC624A**30	CAP**4221A**	58UVB080−14	24,000	13.0	16.0
4141762	24ABC624A**30	CAP**4221A**	58UVB080−20	24,000	13.0	16.0
4141763	24ABC624A**30	CAP**4221A**	58UVB100−20	24,000	13.0	16.0
3901721	24ABC624A**30	CAP**4221A**+TDR		24,000	12.0	14.5
3901729	24ABC624A**30	CAP**4224A**	58CV(A,X)135−22	24,000	13.0	16.0
3901730	24ABC624A**30	CAP**4224A**	58CV(A,X)155−22	24,000	13.0	16.0
3901728	24ABC624A**30	CAP**4224A**	58MV(B,C)120−20	24,000	13.0	16.0
3901727	24ABC624A**30	CAP**4224A**	58MVB040−14	24,000	13.0	16.0
4141764	24ABC624A**30	CAP**4224A**	58UVB120−20	24,000	13.0	16.0
3901726	24ABC624A**30	CAP**4224A**+TDR		24,000	12.0	14.5
3630478	24ABC624A**30	CNPH*2417A**	58CV(A,X)070−12	22,800	12.5	15.5
3630533	24ABC624A**30	CNPH*2417A**	58CV(A,X)090−16	22,800	13.0	16.0
3630597	24ABC624A**30	CNPH*2417A**	58CV(A,X)110−20	22,800	12.5	15.5
3630666	24ABC624A**30	CNPH*2417A**	58CV(A,X)135−22	22,800	12.5	15.5
3630717	24ABC624A**30	CNPH*2417A**	58CV(A,X)155−22	22,800	12.5	15.5
4137534	24ABC624A**30	CNPH*2417A**	58HDV040−−12	23,400	12.5	15.5
4137535	24ABC624A**30	CNPH*2417A**	58HDV060−−12	23,400	12.5	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
4137536	24ABC624A**30	CNPH*2417A**	58HDV080−−20	23,400	12.5	15.5
4137537	24ABC624A**30	CNPH*2417A**	58HDV100−−20	23,400	12.5	15.5
3630819	24ABC624A**30	CNPH*2417A**	58ME(B,C)040−12	23,200	13.0	16.0
3630885	24ABC624A**30	CNPH*2417A**	58ME(B,C)060−12	23,200	13.0	16.0
3630947	24ABC624A**30	CNPH*2417A**	58ME(B,C)080−12	23,000	13.0	16.0
3631149	24ABC624A**30	CNPH*2417A**	58MV(B,C)060−14	23,000	12.5	15.5
3631206	24ABC624A**30	CNPH*2417A**	58MV(B,C)080−14	22,800	12.5	15.5
3631257	24ABC624A**30	CNPH*2417A**	58MV(B,C)080−20	22,600	12.5	15.5
3631321	24ABC624A**30	CNPH*2417A**	58MV(B,C)100−20	22,800	12.5	15.5
3631383	24ABC624A**30	CNPH*2417A**	58MV(B,C)120−20	23,000	13.0	16.0
3631431	24ABC624A**30	CNPH*2417A**	58MVB040−14	22,800	12.5	15.5
3631485	24ABC624A**30	CNPH*2417A**	58PH*045−08	23,000	12.5	15.5
3644935	24ABC624A**30	CNPH*2417A**	58VLR105−12	24,000	13.0	16.0
3644934	24ABC624A**30	CNPH*2417A**	58VMR105−12	23,800	13.0	15.5
4744677	24ABC624A**30	CNPH*2417A**	59*N*A060V17**14	24,000	12.7	15.5
4744678	24ABC624A**30	CNPH*2417A**	59*N*A080V17**14	23,800	12.7	15.5
4744679	24ABC624A**30	CNPH*2417A**	59*N*A100V21**20	24,000	13.0	16.0
4744680	24ABC624A**30	CNPH*2417A**	59*N*A120V24**22	24,000	13.0	16.0
4744681	24ABC624A**30	CNPH*2417A**	59*P5A040E14**10	24,000	12.0	14.5
4744682	24ABC624A**30	CNPH*2417A**	59*P5A060E17**14	24,000	12.7	15.5
4137561	24ABC624A**30	CNPH*2417A**	OVLAAB036098	23,400	12.5	15.5
4137560	24ABC624A**30	CNPH*2417A**	OVMAAB036098	23,400	12.5	15.5
4137562	24ABC624A**30	CNPH*2417A**	OVMAAB042112	23,400	13.0	16.0
3631740	24ABC624A**30	CNPH*2417A**+TDR		23,000	11.5	14.0
3630479	24ABC624A**30	CNPH*3017A**	58CV(A,X)070−12	23,000	13.0	16.0
3630534	24ABC624A**30	CNPH*3017A**	58CV(A,X)090−16	23,000	13.0	16.0
3630598	24ABC624A**30	CNPH*3017A**	58CV(A,X)110−20	23,000	13.0	16.0
3630667	24ABC624A**30	CNPH*3017A**	58CV(A,X)135−22	23,000	13.0	16.0
3630718	24ABC624A**30	CNPH*3017A**	58CV(A,X)155−22	23,000	13.0	16.0
4137538	24ABC624A**30	CNPH*3017A**	58HDV040−−12	23,600	12.5	15.5
4137539	24ABC624A**30	CNPH*3017A**	58HDV060−−12	23,600	12.5	15.5
4137540	24ABC624A**30	CNPH*3017A**	58HDV080−−20	23,600	13.0	16.0
4137541	24ABC624A**30	CNPH*3017A**	58HDV100−−20	23,600	13.0	16.0
3630820	24ABC624A**30	CNPH*3017A**	58ME(B,C)040−12	23,600	13.0	16.0
3630886	24ABC624A**30	CNPH*3017A**	58ME(B,C)060−12	23,600	13.0	16.0
3630948	24ABC624A**30	CNPH*3017A**	58ME(B,C)080−12	23,400	13.0	16.0
3631150	24ABC624A**30	CNPH*3017A**	58MV(B,C)060−14	23,200	13.0	16.0
3631207	24ABC624A**30	CNPH*3017A**	58MV(B,C)080−14	23,000	13.0	16.0
3631258	24ABC624A**30	CNPH*3017A**	58MV(B,C)080−20	22,800	13.0	16.0
3631322	24ABC624A**30	CNPH*3017A**	58MV(B,C)100−20	23,000	13.0	16.0
3631384	24ABC624A**30	CNPH*3017A**	58MV(B,C)120−20	23,200	13.0	16.0
3631432	24ABC624A**30	CNPH*3017A**	58MVB040−14	23,000	13.0	16.0
3631486	24ABC624A**30	CNPH*3017A**	58PH*045−08	23,200	13.0	16.0
3644937	24ABC624A**30	CNPH*3017A**	58VLR105−12	24,000	13.0	16.0
3644936	24ABC624A**30	CNPH*3017A**	58VMR105−12	24,000	13.0	16.0
4744683	24ABC624A**30	CNPH*3017A**	59*N*A060V17**14	24,000	13.0	16.0
4744684	24ABC624A**30	CNPH*3017A**	59*N*A080V17**14	24,000	13.0	16.0
4744685	24ABC624A**30	CNPH*3017A**	59*N*A100V21**20	24,000	13.0	16.0
4744686	24ABC624A**30	CNPH*3017A**	59*N*A120V24**22	24,000	13.0	16.0
4744687	24ABC624A**30	CNPH*3017A**	59*P5A040E14**10	24,000	12.0	14.5
4744688	24ABC624A**30	CNPH*3017A**	59*P5A060E17**14	24,000	13.0	16.0
4137564	24ABC624A**30	CNPH*3017A**	OVLAAB036098	23,600	13.0	16.0
4137563	24ABC624A**30	CNPH*3017A**	OVMAAB036098	23,600	13.0	16.0
4137565	24ABC624A**30	CNPH*3017A**	OVMAAB042112	23,600	13.0	16.0
3631741	24ABC624A**30	CNPH*3017A**+TDR		23,200	11.5	14.0
3630480	24ABC624A**30	CNPH*3117A**	58CV(A,X)070−12	23,400	13.0	16.0
3630535	24ABC624A**30	CNPH*3117A**	58CV(A,X)090−16	23,400	13.0	16.0
3630599	24ABC624A**30	CNPH*3117A**	58CV(A,X)110−20	23,400	13.0	16.0
3630668	24ABC624A**30	CNPH*3117A**	58CV(A,X)135−22	23,400	13.0	16.0
3630719	24ABC624A**30	CNPH*3117A**	58CV(A,X)155−22	23,400	13.0	16.0
4137542	24ABC624A**30	CNPH*3117A**	58HDV040−−12	23,600	13.0	16.0
4137543	24ABC624A**30	CNPH*3117A**	58HDV060−−12	23,600	13.0	16.0
4137544	24ABC624A**30	CNPH*3117A**	58HDV080−−20	23,600	13.0	16.0
4137545	24ABC624A**30	CNPH*3117A**	58HDV100−−20	23,600	13.0	16.0
3630821	24ABC624A**30	CNPH*3117A**	58ME(B,C)040−12	24,000	13.0	16.0
3630887	24ABC624A**30	CNPH*3117A**	58ME(B,C)060−12	24,000	13.0	16.0
3630949	24ABC624A**30	CNPH*3117A**	58ME(B,C)080−12	24,000	13.0	16.0
3631151	24ABC624A**30	CNPH*3117A**	58MV(B,C)060−14	23,800	13.0	16.0
3631208	24ABC624A**30	CNPH*3117A**	58MV(B,C)080−14	23,400	13.0	16.0
3631259	24ABC624A**30	CNPH*3117A**	58MV(B,C)080−20	23,200	13.0	16.0
3631323	24ABC624A**30	CNPH*3117A**	58MV(B,C)100−20	23,400	13.0	16.0
3631385	24ABC624A**30	CNPH*3117A**	58MV(B,C)120−20	23,600	13.0	16.0
3631433	24ABC624A**30	CNPH*3117A**	58MVB040−14	23,400	13.0	16.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3631487	24ABC624A**30	CNPH*3117A**	58PH*045−08	23,800	13.0	16.0
3644939	24ABC624A**30	CNPH*3117A**	58VLR105−12	24,000	13.0	16.0
3644938	24ABC624A**30	CNPH*3117A**	58VMR105−12	24,000	13.0	16.0
4744689	24ABC624A**30	CNPH*3117A**	59*N*A060V17**14	24,000	13.0	16.0
4744690	24ABC624A**30	CNPH*3117A**	59*N*A080V17**14	24,000	13.2	16.5
4744691	24ABC624A**30	CNPH*3117A**	59*N*A100V21**20	24,000	13.2	16.5
4744692	24ABC624A**30	CNPH*3117A**	59*N*A120V24**22	24,000	13.2	16.5
4744693	24ABC624A**30	CNPH*3117A**	59*P5A040E14**10	24,000	12.5	15.2
4744694	24ABC624A**30	CNPH*3117A**	59*P5A060E17**14	24,000	13.2	16.5
4137567	24ABC624A**30	CNPH*3117A**	OVLAAB036098	24,000	13.0	16.0
4137566	24ABC624A**30	CNPH*3117A**	OVMAAB036098	24,000	13.0	16.0
4137568	24ABC624A**30	CNPH*3117A**	OVMAAB042112	24,000	13.0	16.0
3632296	24ABC624A**30	CNPH*3117A**+TDR		23,600	12.0	14.5
3630481	24ABC624A**30	CNPH*3617A**	58CV(A,X)070−12	23,000	13.0	16.0
3630536	24ABC624A**30	CNPH*3617A**	58CV(A,X)090−16	23,000	13.0	16.0
3630600	24ABC624A**30	CNPH*3617A**	58CV(A,X)110−20	23,000	13.0	16.0
3630669	24ABC624A**30	CNPH*3617A**	58CV(A,X)135−22	23,000	13.0	16.0
3630720	24ABC624A**30	CNPH*3617A**	58CV(A,X)155−22	23,000	13.0	16.0
3630822	24ABC624A**30	CNPH*3617A**	58ME(B,C)040−12	23,600	13.0	16.0
3630888	24ABC624A**30	CNPH*3617A**	58ME(B,C)060−12	23,600	13.0	16.0
3630950	24ABC624A**30	CNPH*3617A**	58ME(B,C)080−12	23,400	13.0	16.0
3631152	24ABC624A**30	CNPH*3617A**	58MV(B,C)060−14	23,200	13.0	16.0
3631209	24ABC624A**30	CNPH*3617A**	58MV(B,C)080−14	23,000	13.0	16.0
3631260	24ABC624A**30	CNPH*3617A**	58MV(B,C)080−20	22,800	13.0	16.0
3631324	24ABC624A**30	CNPH*3617A**	58MV(B,C)100−20	23,000	13.0	16.0
3631386	24ABC624A**30	CNPH*3617A**	58MV(B,C)120−20	23,200	13.0	16.0
3631434	24ABC624A**30	CNPH*3617A**	58MVB040−14	23,000	13.0	16.0
3631488	24ABC624A**30	CNPH*3617A**	58PH*045−08	23,200	13.0	16.0
3644941	24ABC624A**30	CNPH*3617A**	58VLR105−12	24,000	13.0	16.0
3644940	24ABC624A**30	CNPH*3617A**	58VMR105−12	24,000	13.0	16.0
3631742	24ABC624A**30	CNPH*3617A**+TDR		23,200	11.5	14.0
3632248	24ABC624A**30	CNPV*1917A**	58CV(A,X)070−12	23,000	13.0	16.0
3632251	24ABC624A**30	CNPV*1917A**	58CV(A,X)090−16	23,000	13.0	16.0
3632260	24ABC624A**30	CNPV*1917A**	58ME(B,C)040−12	23,600	13.0	16.0
3632263	24ABC624A**30	CNPV*1917A**	58ME(B,C)060−12	23,600	13.0	16.0
3632273	24ABC624A**30	CNPV*1917A**	58MV(B,C)060−14	23,400	13.0	16.0
3632286	24ABC624A**30	CNPV*1917A**	58PH*045−08	23,200	13.0	16.0
3632317	24ABC624A**30	CNPV*1917A**	58UVB060−14	23,400	13.0	16.0
3632295	24ABC624A**30	CNPV*1917A**+TDR		23,200	11.5	14.0
3630473	24ABC624A**30	CNPV*2414A**	58CV(A,X)070−12	22,800	12.5	15.5
3631480	24ABC624A**30	CNPV*2414A**	58PH*045−08	23,000	12.5	15.5
4744663	24ABC624A**30	CNPV*2414A**	59*P5A040E14**10	24,000	12.0	14.5
3631734	24ABC624A**30	CNPV*2414A**+TDR		23,000	11.5	14.0
3630474	24ABC624A**30	CNPV*2417A**	58CV(A,X)070−12	22,800	12.5	15.5
3630529	24ABC624A**30	CNPV*2417A**	58CV(A,X)090−16	22,800	13.0	16.0
4137546	24ABC624A**30	CNPV*2417A**	58HDV040−−12	23,400	12.5	15.2
3630815	24ABC624A**30	CNPV*2417A**	58ME(B,C)040−12	23,200	13.0	16.0
3630881	24ABC624A**30	CNPV*2417A**	58ME(B,C)060−12	23,200	13.0	16.0
3630943	24ABC624A**30	CNPV*2417A**	58ME(B,C)080−12	23,000	13.0	16.0
3631145	24ABC624A**30	CNPV*2417A**	58MV(B,C)060−14	23,000	12.5	15.5
3631481	24ABC624A**30	CNPV*2417A**	58PH*045−08	23,000	12.5	15.5
3631935	24ABC624A**30	CNPV*2417A**	58UVB060−14	23,000	12.5	15.5
3644925	24ABC624A**30	CNPV*2417A**	58VLR105−12	24,000	13.0	16.0
3644924	24ABC624A**30	CNPV*2417A**	58VMR105−12	24,000	13.0	15.5
4744664	24ABC624A**30	CNPV*2417A**	59*N*A060V17**14	24,000	12.7	15.5
4744665	24ABC624A**30	CNPV*2417A**	59*N*A080V17**14	23,800	12.7	15.5
4744666	24ABC624A**30	CNPV*2417A**	59*P5A040E14**10	24,000	12.0	14.5
4744667	24ABC624A**30	CNPV*2417A**	59*P5A060E17**14	24,000	12.7	15.5
4137548	24ABC624A**30	CNPV*2417A**	OVLAAB036098	23,400	12.5	15.5
4137547	24ABC624A**30	CNPV*2417A**	OVMAAB036098	23,400	12.5	15.5
4137549	24ABC624A**30	CNPV*2417A**	OVMAAB042112	23,400	13.0	16.0
3631735	24ABC624A**30	CNPV*2417A**+TDR		23,000	11.5	14.0
3630475	24ABC624A**30	CNPV*3014A**	58CV(A,X)070−12	23,000	13.0	16.0
3631482	24ABC624A**30	CNPV*3014A**	58PH*045−08	23,200	12.5	15.5
4744668	24ABC624A**30	CNPV*3014A**	59*P5A040E14**10	24,000	12.0	14.5
3631736	24ABC624A**30	CNPV*3014A**+TDR		23,200	11.5	14.0
3630476	24ABC624A**30	CNPV*3017A**	58CV(A,X)070−12	23,000	13.0	16.0
3630530	24ABC624A**30	CNPV*3017A**	58CV(A,X)090−16	23,000	13.0	16.0
4137550	24ABC624A**30	CNPV*3017A**	58HDV040−−12	23,600	12.5	15.5
4137551	24ABC624A**30	CNPV*3017A**	58HDV060−−12	24,000	12.5	15.5
3630816	24ABC624A**30	CNPV*3017A**	58ME(B,C)040−12	23,600	13.0	16.0
3630882	24ABC624A**30	CNPV*3017A**	58ME(B,C)060−12	23,600	13.0	16.0
3630944	24ABC624A**30	CNPV*3017A**	58ME(B,C)080−12	23,400	13.0	16.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3631146	24ABC624A**30	CNPV*3017A**	58MV(B,C)060−14	23,200	13.0	16.0
3631483	24ABC624A**30	CNPV*3017A**	58PH*045−08	23,200	13.0	16.0
3631936	24ABC624A**30	CNPV*3017A**	58UVB060−14	23,200	13.0	16.0
3644927	24ABC624A**30	CNPV*3017A**	58VLR105−12	24,000	13.0	16.0
3644926	24ABC624A**30	CNPV*3017A**	58VMR105−12	24,000	13.0	16.0
4744669	24ABC624A**30	CNPV*3017A**	59*N*A060V17**14	24,000	13.0	16.0
4744670	24ABC624A**30	CNPV*3017A**	59*N*A080V17**14	24,000	13.0	16.0
4744671	24ABC624A**30	CNPV*3017A**	59*P5A040E14**10	24,000	12.0	14.5
4744672	24ABC624A**30	CNPV*3017A**	59*P5A060E17**14	24,000	13.0	16.0
4137553	24ABC624A**30	CNPV*3017A**	OVLAAB036098	23,600	13.0	16.0
4137552	24ABC624A**30	CNPV*3017A**	OVMAAB036098	23,600	13.0	16.0
4137554	24ABC624A**30	CNPV*3017A**	OVMAAB042112	23,600	13.0	16.0
3631737	24ABC624A**30	CNPV*3017A**+TDR		23,200	11.5	14.0
3630466	24ABC624A**30	CNPV*3117A**	58CV(A,X)070−12	23,400	13.0	16.0
3630524	24ABC624A**30	CNPV*3117A**	58CV(A,X)090−16	23,400	13.0	16.0
4137555	24ABC624A**30	CNPV*3117A**	58HDV040−−12	24,000	13.0	16.0
4137556	24ABC624A**30	CNPV*3117A**	58HDV060−−12	24,000	13.0	16.0
3630810	24ABC624A**30	CNPV*3117A**	58ME(B,C)040−12	24,000	13.0	16.0
3630876	24ABC624A**30	CNPV*3117A**	58ME(B,C)060−12	24,000	13.0	16.0
3630938	24ABC624A**30	CNPV*3117A**	58ME(B,C)080−12	24,000	13.0	16.0
3631140	24ABC624A**30	CNPV*3117A**	58MV(B,C)060−14	23,800	13.0	16.0
3631473	24ABC624A**30	CNPV*3117A**	58PH*045−08	23,800	13.0	16.0
3631930	24ABC624A**30	CNPV*3117A**	58UVB060−14	23,800	13.0	16.0
3644929	24ABC624A**30	CNPV*3117A**	58VLR105−12	24,000	13.0	16.0
3644928	24ABC624A**30	CNPV*3117A**	58VMR105−12	24,000	13.0	16.0
4744673	24ABC624A**30	CNPV*3117A**	59*N*A060V17**14	24,000	13.0	16.0
4744674	24ABC624A**30	CNPV*3117A**	59*N*A080V17**14	24,000	13.2	16.5
4744675	24ABC624A**30	CNPV*3117A**	59*P5A040E14**10	24,000	12.5	15.2
4744676	24ABC624A**30	CNPV*3117A**	59*P5A060E17**14	24,000	13.2	16.5
4137558	24ABC624A**30	CNPV*3117A**	OVLAAB036098	24,000	13.0	16.0
4137557	24ABC624A**30	CNPV*3117A**	OVMAAB036098	24,000	13.0	16.0
4137559	24ABC624A**30	CNPV*3117A**	OVMAAB042112	24,000	13.0	16.0
3630477	24ABC624A**30	CNPV*3617A**	58CV(A,X)070−12	23,000	13.0	16.0
3630531	24ABC624A**30	CNPV*3617A**	58CV(A,X)090−16	23,000	13.0	16.0
3630817	24ABC624A**30	CNPV*3617A**	58ME(B,C)040−12	23,600	13.0	16.0
3630883	24ABC624A**30	CNPV*3617A**	58ME(B,C)060−12	23,600	13.0	16.0
3630945	24ABC624A**30	CNPV*3617A**	58ME(B,C)080−12	23,400	13.0	16.0
3631147	24ABC624A**30	CNPV*3617A**	58MV(B,C)060−14	23,200	13.0	16.0
3631484	24ABC624A**30	CNPV*3617A**	58PH*045−08	23,200	13.0	16.0
3631937	24ABC624A**30	CNPV*3617A**	58UVB060−14	23,200	13.0	16.0
3644931	24ABC624A**30	CNPV*3617A**	58VLR105−12	24,000	13.0	16.0
3644930	24ABC624A**30	CNPV*3617A**	58VMR105−12	24,000	13.0	16.0
3631738	24ABC624A**30	CNPV*3617A**+TDR		23,200	11.5	14.0
3630532	24ABC624A**30	CNPV*3621A**	58CV(A,X)090−16	23,000	13.0	16.0
3630596	24ABC624A**30	CNPV*3621A**	58CV(A,X)110−20	23,000	13.0	16.0
3630818	24ABC624A**30	CNPV*3621A**	58ME(B,C)040−12	23,600	13.0	16.0
3630884	24ABC624A**30	CNPV*3621A**	58ME(B,C)060−12	23,600	13.0	16.0
3630946	24ABC624A**30	CNPV*3621A**	58ME(B,C)080−12	23,400	13.0	16.0
3631148	24ABC624A**30	CNPV*3621A**	58MV(B,C)060−14	23,200	13.0	16.0
3631205	24ABC624A**30	CNPV*3621A**	58MV(B,C)080−14	23,000	13.0	16.0
3631256	24ABC624A**30	CNPV*3621A**	58MV(B,C)080−20	22,800	13.0	16.0
3631320	24ABC624A**30	CNPV*3621A**	58MV(B,C)100−20	23,000	13.0	16.0
3631938	24ABC624A**30	CNPV*3621A**	58UVB060−14	23,200	13.0	16.0
3631995	24ABC624A**30	CNPV*3621A**	58UVB080−14	23,000	13.0	16.0
3632047	24ABC624A**30	CNPV*3621A**	58UVB080−20	22,800	13.0	16.0
3632111	24ABC624A**30	CNPV*3621A**	58UVB100−20	23,000	13.0	16.0
3644933	24ABC624A**30	CNPV*3621A**	58VLR105−12	24,000	13.0	16.0
3644932	24ABC624A**30	CNPV*3621A**	58VMR105−12	24,000	13.0	16.0
3631739	24ABC624A**30	CNPV*3621A**+TDR		23,200	11.5	14.0
3630770	24ABC624A**30	CSPH*2412A**	58HDV040−−12	23,200	12.8	15.2
3630779	24ABC624A**30	CSPH*2412A**	58HDV060−−12	23,200	12.8	15.2
3644943	24ABC624A**30	CSPH*2412A**	58VLR105−12	24,000	13.0	16.0
3644942	24ABC624A**30	CSPH*2412A**	58VMR105−12	24,000	13.0	15.5
4744695	24ABC624A**30	CSPH*2412A**	59*N*A060V17**14	24,000	12.7	15.5
4744696	24ABC624A**30	CSPH*2412A**	59*N*A080V17**14	24,000	13.0	16.0
4744697	24ABC624A**30	CSPH*2412A**	59*N*A100V21**20	24,000	13.0	16.0
4744698	24ABC624A**30	CSPH*2412A**	59*N*A120V24**22	24,000	13.0	16.0
4744699	24ABC624A**30	CSPH*2412A**	59*P5A040E14**10	24,000	12.0	14.5
4744700	24ABC624A**30	CSPH*2412A**	59*P5A060E17**14	24,000	13.0	16.0
4137570	24ABC624A**30	CSPH*2412A**	OVLAAB036098	23,600	13.0	15.5
4137569	24ABC624A**30	CSPH*2412A**	OVMAAB036098	23,600	12.5	15.5
4137571	24ABC624A**30	CSPH*2412A**	OVMAAB042112	23,600	13.0	16.0
3631745	24ABC624A**30	CSPH*2412A**+TDR		23,200	11.5	14.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3630482	24ABC624A**30	CSPH*3012A**	58CV(A,X)070−12	23,000	13.0	16.0
3630537	24ABC624A**30	CSPH*3012A**	58CV(A,X)090−16	23,200	13.0	16.0
3630601	24ABC624A**30	CSPH*3012A**	58CV(A,X)110−20	23,200	13.0	16.0
3630670	24ABC624A**30	CSPH*3012A**	58CV(A,X)135−22	23,200	13.0	16.0
3630721	24ABC624A**30	CSPH*3012A**	58CV(A,X)155−22	23,200	13.0	16.0
3630823	24ABC624A**30	CSPH*3012A**	58ME(B,C)040−12	23,600	13.0	16.0
3630889	24ABC624A**30	CSPH*3012A**	58ME(B,C)060−12	23,600	13.0	16.0
3630951	24ABC624A**30	CSPH*3012A**	58ME(B,C)080−12	23,400	13.0	16.0
3631153	24ABC624A**30	CSPH*3012A**	58MV(B,C)060−14	23,400	13.0	16.0
3631210	24ABC624A**30	CSPH*3012A**	58MV(B,C)080−14	23,000	13.0	16.0
3631261	24ABC624A**30	CSPH*3012A**	58MV(B,C)080−20	22,800	13.0	16.0
3631325	24ABC624A**30	CSPH*3012A**	58MV(B,C)100−20	23,000	13.0	16.0
3631387	24ABC624A**30	CSPH*3012A**	58MV(B,C)120−20	23,200	13.0	16.0
3631435	24ABC624A**30	CSPH*3012A**	58MVB040−14	23,000	13.0	16.0
3631489	24ABC624A**30	CSPH*3012A**	58PH*045−08	23,200	13.0	16.0
3644945	24ABC624A**30	CSPH*3012A**	58VLR105−12	24,000	13.0	16.0
3644944	24ABC624A**30	CSPH*3012A**	58VMR105−12	24,000	13.0	16.0
4744701	24ABC624A**30	CSPH*3012A**	59*N*A060V17**14	24,000	13.0	16.0
4744702	24ABC624A**30	CSPH*3012A**	59*N*A080V17**14	24,000	13.0	16.0
4744703	24ABC624A**30	CSPH*3012A**	59*N*A100V21**20	24,000	13.0	16.0
4744704	24ABC624A**30	CSPH*3012A**	59*N*A120V24**22	24,000	13.0	16.0
4744705	24ABC624A**30	CSPH*3012A**	59*P5A040E14**10	24,000	12.5	15.0
4744706	24ABC624A**30	CSPH*3012A**	59*P5A060E17**14	24,000	13.0	16.0
4137573	24ABC624A**30	CSPH*3012A**	OVLAAB036098	23,600	13.0	16.0
4137572	24ABC624A**30	CSPH*3012A**	OVMAAB036098	23,600	13.0	16.0
4137574	24ABC624A**30	CSPH*3012A**	OVMAAB042112	23,600	13.0	16.0
3631746	24ABC624A**30	CSPH*3012A**+TDR		23,200	11.5	14.0
3630483	24ABC624A**30	CSPH*3612A**	58CV(A,X)070−12	23,400	13.0	16.0
3630538	24ABC624A**30	CSPH*3612A**	58CV(A,X)090−16	23,400	13.0	16.0
3630602	24ABC624A**30	CSPH*3612A**	58CV(A,X)110−20	23,400	13.0	16.0
3630671	24ABC624A**30	CSPH*3612A**	58CV(A,X)135−22	23,400	13.0	16.0
3630722	24ABC624A**30	CSPH*3612A**	58CV(A,X)155−22	23,400	13.0	16.0
3630824	24ABC624A**30	CSPH*3612A**	58ME(B,C)040−12	24,000	13.0	16.0
3630890	24ABC624A**30	CSPH*3612A**	58ME(B,C)060−12	24,000	13.0	16.0
3630952	24ABC624A**30	CSPH*3612A**	58ME(B,C)080−12	23,800	13.0	16.0
3631154	24ABC624A**30	CSPH*3612A**	58MV(B,C)060−14	23,800	13.0	16.0
3631211	24ABC624A**30	CSPH*3612A**	58MV(B,C)080−14	23,400	13.0	16.0
3631262	24ABC624A**30	CSPH*3612A**	58MV(B,C)080−20	23,200	13.0	16.0
3631326	24ABC624A**30	CSPH*3612A**	58MV(B,C)100−20	23,400	13.0	16.0
3631388	24ABC624A**30	CSPH*3612A**	58MV(B,C)120−20	23,600	13.0	16.0
3631436	24ABC624A**30	CSPH*3612A**	58MVB040−14	23,400	13.0	16.0
3631490	24ABC624A**30	CSPH*3612A**	58PH*045−08	23,600	13.0	16.0
3644947	24ABC624A**30	CSPH*3612A**	58VLR105−12	24,000	13.0	16.0
3644946	24ABC624A**30	CSPH*3612A**	58VMR105−12	24,000	13.0	16.0
3631747	24ABC624A**30	CSPH*3612A**+TDR		23,600	12.0	14.5
3804396	24ABC624A**30	FB4CNF024		22,800	12.0	14.5
3693278	24ABC624A**30	FB4CNF024+TXV		22,800	12.0	15.0
3804397	24ABC624A**30	FB4CNF030		23,400	12.5	15.0
3693279	24ABC624A**30	FB4CNF030+TXV		23,400	13.0	16.0
3631708	24ABC624A**30	FE4AN(B,F)003+UI		23,200	13.0	16.0
3631721	24ABC624A**30	FE4ANF002+UI		23,200	13.0	16.0
3631753	24ABC624A**30	FF1ENP024		22,800	11.5	13.5
3631755	24ABC624A**30	FF1ENP025		23,200	12.5	15.0
3631756	24ABC624A**30	FF1ENP030		22,800	11.5	13.5
3631758	24ABC624A**30	FF1ENP031		23,200	12.5	15.0
3631760	24ABC624A**30	FF1ENP036		23,000	11.0	13.5
3631763	24ABC624A**30	FF1ENP037		23,400	12.5	15.5
3631804	24ABC624A**30	FV4CN(B,F)003		23,200	13.0	16.0
3631817	24ABC624A**30	FV4CNF002		23,200	13.0	16.0
3632298	24ABC624A**30	FX4DN(B,F)031		23,600	12.5	15.5
3632313	24ABC624A**30	FX4DNF025		23,400	13.0	16.0
3804398	24ABC624A**30	FY5BNF024		23,200	12.0	14.0
3693291	24ABC624A**30	FY5BNF024+TXV		23,200	12.0	15.0
3804399	24ABC624A**30	FY5BNF030		23,400	12.0	14.0
3693292	24ABC624A**30	FY5BNF030+TXV		23,400	12.0	15.0
3631772	24ABC630A**30	†CNPV*3117A**+TDR		28,600	12.0	14.5
3630485	24ABC630A**30	CAP**3014A**	58CV(A,X)070−12	27,600	13.0	15.2
3631773	24ABC630A**30	CAP**3014A**+TDR		28,000	12.0	14.0
3630486	24ABC630A**30	CAP**3017A**	58CV(A,X)070−12	27,800	12.5	15.5
3630540	24ABC630A**30	CAP**3017A**	58CV(A,X)090−16	27,800	13.0	16.0
3630826	24ABC630A**30	CAP**3017A**	58ME(B,C)040−12	28,200	13.0	16.0
3630892	24ABC630A**30	CAP**3017A**	58ME(B,C)060−12	28,200	13.0	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3630954	24ABC630A**30	CAP**3017A**	58ME(B,C)080−12	28,000	13.0	16.0
3631001	24ABC630A**30	CAP**3017A**	58ME(B,C)080−16	28,200	13.0	15.5
3631156	24ABC630A**30	CAP**3017A**	58MV(B,C)060−14	28,000	13.0	15.5
3631504	24ABC630A**30	CAP**3017A**	58PH*070−16	28,000	12.5	15.0
3631946	24ABC630A**30	CAP**3017A**	58UVB060−14	28,000	13.0	15.5
3644949	24ABC630A**30	CAP**3017A**	58VLR105−12	27,800	13.0	15.5
3644948	24ABC630A**30	CAP**3017A**	58VMR105−12	27,600	13.0	15.5
4744707	24ABC630A**30	CAP**3017A**	59*N*A060V17**14	28,200	12.7	15.5
4744708	24ABC630A**30	CAP**3017A**	59*N*A080V17**14	28,400	12.7	15.5
4744709	24ABC630A**30	CAP**3017A**	59*P5A060E17**14	28,400	12.7	15.5
4744710	24ABC630A**30	CAP**3017A**	59*P5A080E17**16	28,800	12.7	15.5
4137576	24ABC630A**30	CAP**3017A**	OVLAAB036098	28,400	13.0	15.5
4137575	24ABC630A**30	CAP**3017A**	OVMAAB036098	28,400	13.0	15.0
3631774	24ABC630A**30	CAP**3017A**+TDR		28,000	12.0	14.0
3630487	24ABC630A**30	CAP**3614A**	58CV(A,X)070−12	27,800	12.5	15.5
3631775	24ABC630A**30	CAP**3614A**+TDR		28,000	12.0	14.0
3630488	24ABC630A**30	CAP**3617A**	58CV(A,X)070−12	27,800	12.5	15.5
3630541	24ABC630A**30	CAP**3617A**	58CV(A,X)090−16	27,800	13.0	16.0
3630827	24ABC630A**30	CAP**3617A**	58ME(B,C)040−12	28,200	13.0	16.0
3630893	24ABC630A**30	CAP**3617A**	58ME(B,C)060−12	28,200	13.0	16.0
3630955	24ABC630A**30	CAP**3617A**	58ME(B,C)080−12	28,200	13.0	16.0
3631002	24ABC630A**30	CAP**3617A**	58ME(B,C)080−16	28,400	13.0	16.0
3631157	24ABC630A**30	CAP**3617A**	58MV(B,C)060−14	28,000	13.0	16.0
3631505	24ABC630A**30	CAP**3617A**	58PH*070−16	28,000	12.5	15.2
3631947	24ABC630A**30	CAP**3617A**	58UVB060−14	28,000	13.0	16.0
3644951	24ABC630A**30	CAP**3617A**	58VLR105−12	28,000	13.0	15.5
3644950	24ABC630A**30	CAP**3617A**	58VMR105−12	27,600	13.0	15.5
4744711	24ABC630A**30	CAP**3617A**	59*N*A060V17**14	28,400	12.7	15.5
4744712	24ABC630A**30	CAP**3617A**	59*N*A080V17**14	28,600	13.0	16.0
4744713	24ABC630A**30	CAP**3617A**	59*P5A060E17**14	28,600	12.7	15.5
4744714	24ABC630A**30	CAP**3617A**	59*P5A080E17**16	28,800	12.7	15.5
4137578	24ABC630A**30	CAP**3617A**	OVLAAB036098	28,400	13.0	15.5
4137577	24ABC630A**30	CAP**3617A**	OVMAAB036098	28,400	13.0	15.5
3631776	24ABC630A**30	CAP**3617A**+TDR		28,000	12.0	14.0
3630771	24ABC630A**30	CAP**3619A**	58HDV040−−12	28,000	12.5	15.0
3630780	24ABC630A**30	CAP**3619A**	58HDV060−−12	28,200	12.5	15.2
4744720	24ABC630A**30	CAP**3619A**	59*N*A060V17**14	28,400	12.7	15.5
4744721	24ABC630A**30	CAP**3619A**	59*N*A080V17**14	28,600	13.0	16.0
4744722	24ABC630A**30	CAP**3619A**	59*N*A100V21**20	28,600	13.0	16.0
4744723	24ABC630A**30	CAP**3619A**	59*P5A060E17**14	28,600	12.7	15.5
4744724	24ABC630A**30	CAP**3619A**	59*P5A080E17**16	28,800	12.7	15.5
3631780	24ABC630A**30	CAP**3619A**+TDR		28,000	11.5	14.0
3630542	24ABC630A**30	CAP**3621A**	58CV(A,X)090−16	27,800	13.0	16.0
3630603	24ABC630A**30	CAP**3621A**	58CV(A,X)110−20	27,800	13.0	16.0
3630828	24ABC630A**30	CAP**3621A**	58ME(B,C)040−12	28,200	13.0	16.0
3630894	24ABC630A**30	CAP**3621A**	58ME(B,C)060−12	28,200	13.0	16.0
3630956	24ABC630A**30	CAP**3621A**	58ME(B,C)080−12	28,200	13.0	16.0
3631003	24ABC630A**30	CAP**3621A**	58ME(B,C)080−16	28,400	13.0	16.0
3631158	24ABC630A**30	CAP**3621A**	58MV(B,C)060−14	28,200	13.0	16.0
3631212	24ABC630A**30	CAP**3621A**	58MV(B,C)080−14	27,600	13.0	16.0
3631263	24ABC630A**30	CAP**3621A**	58MV(B,C)080−20	27,800	13.0	16.0
3631327	24ABC630A**30	CAP**3621A**	58MV(B,C)100−20	27,600	13.0	15.5
3631506	24ABC630A**30	CAP**3621A**	58PH*070−16	28,000	13.0	15.2
3631550	24ABC630A**30	CAP**3621A**	58PH*090−16	28,200	13.0	16.0
3631948	24ABC630A**30	CAP**3621A**	58UVB060−14	28,200	13.0	16.0
3632002	24ABC630A**30	CAP**3621A**	58UVB080−14	27,600	13.0	16.0
3632054	24ABC630A**30	CAP**3621A**	58UVB080−20	27,800	13.0	16.0
3632118	24ABC630A**30	CAP**3621A**	58UVB100−20	27,600	13.0	15.5
3644953	24ABC630A**30	CAP**3621A**	58VLR105−12	28,000	13.0	15.5
3644952	24ABC630A**30	CAP**3621A**	58VMR105−12	27,600	13.0	16.0
4744715	24ABC630A**30	CAP**3621A**	59*N*A060V17**14	28,400	12.7	15.5
4744716	24ABC630A**30	CAP**3621A**	59*N*A080V17**14	28,600	13.0	16.0
4744717	24ABC630A**30	CAP**3621A**	59*N*A100V21**20	28,600	13.0	16.0
4744718	24ABC630A**30	CAP**3621A**	59*P5A060E17**14	28,800	12.7	15.5
4744719	24ABC630A**30	CAP**3621A**	59*P5A080E17**16	29,000	12.7	15.5
3631777	24ABC630A**30	CAP**3621A**+TDR		28,000	12.0	14.0
3630543	24ABC630A**30	CAP**4221A**	58CV(A,X)090−16	28,000	13.0	16.0
3630604	24ABC630A**30	CAP**4221A**	58CV(A,X)110−20	28,000	13.0	16.0
3630829	24ABC630A**30	CAP**4221A**	58ME(B,C)040−12	28,400	13.0	16.0
3630895	24ABC630A**30	CAP**4221A**	58ME(B,C)060−12	28,600	13.0	16.0
3630957	24ABC630A**30	CAP**4221A**	58ME(B,C)080−12	28,400	13.0	16.0
3631004	24ABC630A**30	CAP**4221A**	58ME(B,C)080−16	28,600	13.0	16.0
3631159	24ABC630A**30	CAP**4221A**	58MV(B,C)060−14	28,200	13.0	16.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3631213	24ABC630A**30	CAP**4221A**	58MV(B,C)080−14	28,000	13.0	16.0
3631264	24ABC630A**30	CAP**4221A**	58MV(B,C)080−20	28,000	13.0	16.0
3631328	24ABC630A**30	CAP**4221A**	58MV(B,C)100−20	27,800	13.0	16.0
3631507	24ABC630A**30	CAP**4221A**	58PH*070−16	28,200	12.5	15.5
3631551	24ABC630A**30	CAP**4221A**	58PH*090−16	28,400	13.0	16.0
3631949	24ABC630A**30	CAP**4221A**	58UVB060−14	28,200	13.0	16.0
3632003	24ABC630A**30	CAP**4221A**	58UVB080−14	28,000	13.0	16.0
3632055	24ABC630A**30	CAP**4221A**	58UVB080−20	28,000	13.0	16.0
3632119	24ABC630A**30	CAP**4221A**	58UVB100−20	27,800	13.0	16.0
3644955	24ABC630A**30	CAP**4221A**	58VLR105−12	28,200	13.0	16.0
3644954	24ABC630A**30	CAP**4221A**	58VMR105−12	27,800	13.0	16.0
3631778	24ABC630A**30	CAP**4221A**+TDR		28,200	11.5	14.0
3630605	24ABC630A**30	CAP**4224A**	58CV(A,X)110−20	28,200	13.0	16.0
3630672	24ABC630A**30	CAP**4224A**	58CV(A,X)135−22	28,200	13.0	16.0
3630723	24ABC630A**30	CAP**4224A**	58CV(A,X)155−22	28,200	13.0	16.0
3631214	24ABC630A**30	CAP**4224A**	58MV(B,C)080−14	28,000	13.0	16.0
3631265	24ABC630A**30	CAP**4224A**	58MV(B,C)080−20	28,000	13.0	16.0
3631329	24ABC630A**30	CAP**4224A**	58MV(B,C)100−20	27,800	13.0	16.0
3631389	24ABC630A**30	CAP**4224A**	58MV(B,C)120−20	28,000	13.0	16.0
3631437	24ABC630A**30	CAP**4224A**	58MVB040−14	28,000	13.0	16.0
3631552	24ABC630A**30	CAP**4224A**	58PH*090−16	28,400	13.0	16.0
3632004	24ABC630A**30	CAP**4224A**	58UVB080−14	28,000	13.0	16.0
3632056	24ABC630A**30	CAP**4224A**	58UVB080−20	28,000	13.0	16.0
3632120	24ABC630A**30	CAP**4224A**	58UVB100−20	27,800	13.0	16.0
3632180	24ABC630A**30	CAP**4224A**	58UVB120−20	28,000	13.0	16.0
3631779	24ABC630A**30	CAP**4224A**+TDR		28,200	11.5	14.0
3901733	24ABC630A**30	CAP**4817A**	58CV(A,X)090−16	29,000	13.0	16.0
3901736	24ABC630A**30	CAP**4817A**	58ME(B,C)060−12	29,000	13.0	16.0
3901737	24ABC630A**30	CAP**4817A**	58ME(B,C)080−12	29,000	13.0	16.0
3901738	24ABC630A**30	CAP**4817A**	58ME(B,C)080−16	29,000	13.0	16.0
3901735	24ABC630A**30	CAP**4817A**	58MEB040−12	29,000	13.0	16.0
3901732	24ABC630A**30	CAP**4817A**	58MV(B,C)060−14	29,000	13.0	16.0
3901734	24ABC630A**30	CAP**4817A**	58PH*070−16	29,000	13.0	16.0
4141765	24ABC630A**30	CAP**4817A**	58UVB060−14	29,000	13.0	16.0
3901740	24ABC630A**30	CAP**4817A**	58VLR105−12	29,000	13.0	16.0
3901739	24ABC630A**30	CAP**4817A**	58VMR105−12	28,800	13.0	16.0
3901731	24ABC630A**30	CAP**4817A**+TDR		29,000	12.0	14.5
3901745	24ABC630A**30	CAP**4821A**	58CV(A,X)110−20	29,000	13.0	16.0
3901742	24ABC630A**30	CAP**4821A**	58MV(B,C)080−14	28,800	13.0	16.0
3901743	24ABC630A**30	CAP**4821A**	58MV(B,C)080−20	28,800	13.0	16.0
3901744	24ABC630A**30	CAP**4821A**	58MV(B,C)100−20	28,600	13.0	16.0
3901746	24ABC630A**30	CAP**4821A**	58PH*090−16	29,000	13.0	16.0
4141766	24ABC630A**30	CAP**4821A**	58UVB080−14	28,800	13.0	16.0
4141767	24ABC630A**30	CAP**4821A**	58UVB080−20	28,800	13.0	16.0
4141768	24ABC630A**30	CAP**4821A**	58UVB100−20	28,600	13.0	16.0
3901741	24ABC630A**30	CAP**4821A**+TDR		29,000	12.0	14.5
3901754	24ABC630A**30	CAP**4823A**	58HDV080−−20	29,600	13.0	16.0
4045184	24ABC630A**30	CAP**4823A**	58HDV100−−20	29,000	13.0	16.0
3901753	24ABC630A**30	CAP**4823A**+TDR		29,000	12.0	14.5
3901750	24ABC630A**30	CAP**4824A**	58CV(A,X)135−22	29,000	13.0	16.0
3901751	24ABC630A**30	CAP**4824A**	58CV(A,X)155−22	29,000	13.0	16.0
3901752	24ABC630A**30	CAP**4824A**	58HDV100−−20	29,000	13.0	16.0
3901749	24ABC630A**30	CAP**4824A**	58MV(B,C)120−20	29,000	13.0	16.0
3901748	24ABC630A**30	CAP**4824A**	58MVB040−14	28,800	13.0	16.0
4141769	24ABC630A**30	CAP**4824A**	58UVB120−20	29,000	13.0	16.0
3901747	24ABC630A**30	CAP**4824A**+TDR		29,000	12.0	14.5
3630493	24ABC630A**30	CNPH*3017A**	58CV(A,X)070−12	27,800	12.5	15.5
3630549	24ABC630A**30	CNPH*3017A**	58CV(A,X)090−16	27,800	13.0	15.5
3630608	24ABC630A**30	CNPH*3017A**	58CV(A,X)110−20	27,800	13.0	15.5
3630673	24ABC630A**30	CNPH*3017A**	58CV(A,X)135−22	27,800	13.0	16.0
3630724	24ABC630A**30	CNPH*3017A**	58CV(A,X)155−22	27,800	13.0	16.0
4137579	24ABC630A**30	CNPH*3017A**	58HDV040−−12	28,400	12.5	15.0
4137580	24ABC630A**30	CNPH*3017A**	58HDV060−−12	28,400	12.5	15.2
4137581	24ABC630A**30	CNPH*3017A**	58HDV080−−20	28,400	12.5	15.5
4137582	24ABC630A**30	CNPH*3017A**	58HDV100−−20	28,400	12.5	15.5
3630835	24ABC630A**30	CNPH*3017A**	58ME(B,C)040−12	28,200	13.0	16.0
3630901	24ABC630A**30	CNPH*3017A**	58ME(B,C)060−12	28,200	13.0	15.5
3630963	24ABC630A**30	CNPH*3017A**	58ME(B,C)080−12	28,000	13.0	16.0
3631010	24ABC630A**30	CNPH*3017A**	58ME(B,C)080−16	28,200	13.0	15.5
3631165	24ABC630A**30	CNPH*3017A**	58MV(B,C)060−14	28,000	13.0	15.5
3631217	24ABC630A**30	CNPH*3017A**	58MV(B,C)080−14	27,600	12.5	15.5
3631268	24ABC630A**30	CNPH*3017A**	58MV(B,C)080−20	27,800	12.5	15.5
3631332	24ABC630A**30	CNPH*3017A**	58MV(B,C)100−20	27,600	12.5	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3631390	24ABC630A**30	CNPH*3017A**	58MV(B,C)120−20	27,800	13.0	16.0
3631438	24ABC630A**30	CNPH*3017A**	58MVB040−14	27,800	12.5	15.5
3631513	24ABC630A**30	CNPH*3017A**	58PH*070−16	28,000	12.5	15.0
3631555	24ABC630A**30	CNPH*3017A**	58PH*090−16	28,000	12.5	15.5
3644969	24ABC630A**30	CNPH*3017A**	58VLR105−12	28,000	13.0	15.5
3644968	24ABC630A**30	CNPH*3017A**	58VMR105−12	27,600	13.0	15.5
4744746	24ABC630A**30	CNPH*3017A**	59*N*A060V17**14	28,200	12.7	15.5
4744747	24ABC630A**30	CNPH*3017A**	59*N*A080V17**14	28,400	12.7	15.5
4744748	24ABC630A**30	CNPH*3017A**	59*N*A100V21**20	28,600	12.7	15.5
4744749	24ABC630A**30	CNPH*3017A**	59*N*A120V24**22	28,600	13.0	16.0
4744750	24ABC630A**30	CNPH*3017A**	59*P5A060E17**14	28,600	12.7	15.5
4744751	24ABC630A**30	CNPH*3017A**	59*P5A080E17**16	28,800	12.7	15.5
4137619	24ABC630A**30	CNPH*3017A**	OVLAAB036098	28,400	12.5	15.0
4137621	24ABC630A**30	CNPH*3017A**	OVLAAB048112	28,600	12.5	15.0
4137618	24ABC630A**30	CNPH*3017A**	OVMAAB036098	28,400	12.5	15.0
4137620	24ABC630A**30	CNPH*3017A**	OVMAAB042112	28,600	12.5	15.5
3631787	24ABC630A**30	CNPH*3017A**+TDR		28,000	12.0	14.0
3630494	24ABC630A**30	CNPH*3117A**	58CV(A,X)070−12	28,400	13.0	16.0
3630550	24ABC630A**30	CNPH*3117A**	58CV(A,X)090−16	28,400	13.0	16.0
3630609	24ABC630A**30	CNPH*3117A**	58CV(A,X)110−20	28,400	13.0	16.0
3630674	24ABC630A**30	CNPH*3117A**	58CV(A,X)135−22	28,400	13.0	16.0
3630725	24ABC630A**30	CNPH*3117A**	58CV(A,X)155−22	28,400	13.0	16.0
4137583	24ABC630A**30	CNPH*3117A**	58HDV040−−12	28,400	12.5	15.5
4137584	24ABC630A**30	CNPH*3117A**	58HDV060−−12	28,400	12.5	15.5
4137585	24ABC630A**30	CNPH*3117A**	58HDV080−−20	28,400	13.0	16.0
4137586	24ABC630A**30	CNPH*3117A**	58HDV100−−20	28,400	13.0	16.0
3630836	24ABC630A**30	CNPH*3117A**	58ME(B,C)040−12	28,800	13.0	16.0
3630902	24ABC630A**30	CNPH*3117A**	58ME(B,C)060−12	28,800	13.0	16.0
3630964	24ABC630A**30	CNPH*3117A**	58ME(B,C)080−12	28,800	13.0	16.0
3631011	24ABC630A**30	CNPH*3117A**	58ME(B,C)080−16	29,000	13.0	16.0
3631166	24ABC630A**30	CNPH*3117A**	58MV(B,C)060−14	28,600	13.0	16.0
3631218	24ABC630A**30	CNPH*3117A**	58MV(B,C)080−14	28,200	13.0	16.0
3631269	24ABC630A**30	CNPH*3117A**	58MV(B,C)080−20	28,400	13.0	16.0
3631333	24ABC630A**30	CNPH*3117A**	58MV(B,C)100−20	28,200	13.0	16.0
3631391	24ABC630A**30	CNPH*3117A**	58MV(B,C)120−20	28,400	13.0	16.0
3631439	24ABC630A**30	CNPH*3117A**	58MVB040−14	28,400	13.0	16.0
3631514	24ABC630A**30	CNPH*3117A**	58PH*070−16	28,600	13.0	16.0
3631556	24ABC630A**30	CNPH*3117A**	58PH*090−16	28,600	13.0	16.0
4744752	24ABC630A**30	CNPH*3117A**	59*N*A060V17**14	29,000	13.0	16.0
4744753	24ABC630A**30	CNPH*3117A**	59*N*A080V17**14	29,000	13.0	16.0
4744754	24ABC630A**30	CNPH*3117A**	59*N*A100V21**20	29,200	13.0	16.0
4744755	24ABC630A**30	CNPH*3117A**	59*N*A120V24**22	29,200	13.2	16.5
4744756	24ABC630A**30	CNPH*3117A**	59*P5A060E17**14	29,200	13.0	16.0
4744757	24ABC630A**30	CNPH*3117A**	59*P5A080E17**16	29,400	13.0	16.0
4137623	24ABC630A**30	CNPH*3117A**	OVLAAB036098	29,000	12.5	15.5
4137625	24ABC630A**30	CNPH*3117A**	OVLAAB048112	29,000	12.5	15.5
4137622	24ABC630A**30	CNPH*3117A**	OVMAAB036098	29,000	12.5	15.0
4137624	24ABC630A**30	CNPH*3117A**	OVMAAB042112	29,000	13.0	16.0
3632297	24ABC630A**30	CNPH*3117A**+TDR		28,600	12.0	14.5
3630495	24ABC630A**30	CNPH*3617A**	58CV(A,X)070−12	27,800	12.5	15.5
3630551	24ABC630A**30	CNPH*3617A**	58CV(A,X)090−16	27,800	13.0	15.5
3630610	24ABC630A**30	CNPH*3617A**	58CV(A,X)110−20	27,800	13.0	15.5
3630675	24ABC630A**30	CNPH*3617A**	58CV(A,X)135−22	27,800	13.0	16.0
3630726	24ABC630A**30	CNPH*3617A**	58CV(A,X)155−22	27,800	13.0	16.0
4137587	24ABC630A**30	CNPH*3617A**	58HDV040−−12	28,400	12.5	15.0
4137588	24ABC630A**30	CNPH*3617A**	58HDV060−−12	28,600	12.5	15.2
4137589	24ABC630A**30	CNPH*3617A**	58HDV080−−20	28,600	12.5	15.5
4137590	24ABC630A**30	CNPH*3617A**	58HDV100−−20	28,600	12.5	15.5
3630837	24ABC630A**30	CNPH*3617A**	58ME(B,C)040−12	28,200	13.0	16.0
3630903	24ABC630A**30	CNPH*3617A**	58ME(B,C)060−12	28,200	13.0	15.5
3630965	24ABC630A**30	CNPH*3617A**	58ME(B,C)080−12	28,000	13.0	16.0
3631012	24ABC630A**30	CNPH*3617A**	58ME(B,C)080−16	28,200	13.0	15.5
3631167	24ABC630A**30	CNPH*3617A**	58MV(B,C)060−14	28,000	13.0	15.5
3631219	24ABC630A**30	CNPH*3617A**	58MV(B,C)080−14	27,600	12.5	15.5
3631270	24ABC630A**30	CNPH*3617A**	58MV(B,C)080−20	27,800	12.5	15.5
3631334	24ABC630A**30	CNPH*3617A**	58MV(B,C)100−20	27,600	12.5	15.5
3631392	24ABC630A**30	CNPH*3617A**	58MV(B,C)120−20	27,800	13.0	16.0
3631440	24ABC630A**30	CNPH*3617A**	58MVB040−14	27,800	12.5	15.5
3631515	24ABC630A**30	CNPH*3617A**	58PH*070−16	28,000	12.5	15.0
3631557	24ABC630A**30	CNPH*3617A**	58PH*090−16	28,000	12.5	15.5
3644971	24ABC630A**30	CNPH*3617A**	58VLR105−12	28,000	13.0	15.5
3644970	24ABC630A**30	CNPH*3617A**	58VMR105−12	27,600	13.0	15.5
4744758	24ABC630A**30	CNPH*3617A**	59*N*A060V17**14	28,200	12.7	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
4744759	24ABC630A**30	CNPH*3617A**	59*N*A080V17**14	28,400	12.7	15.5
4744760	24ABC630A**30	CNPH*3617A**	59*N*A100V21**20	28,600	12.7	15.5
4744761	24ABC630A**30	CNPH*3617A**	59*N*A120V24**22	28,600	13.0	16.0
4744762	24ABC630A**30	CNPH*3617A**	59*P5A060E17**14	28,600	12.7	15.5
4744763	24ABC630A**30	CNPH*3617A**	59*P5A080E17**16	28,800	12.7	15.5
4137627	24ABC630A**30	CNPH*3617A**	OVLAAB036098	28,400	12.5	15.0
4137629	24ABC630A**30	CNPH*3617A**	OVLAAB048112	28,600	12.5	15.0
4137626	24ABC630A**30	CNPH*3617A**	OVMAAB036098	28,400	12.5	15.0
4137628	24ABC630A**30	CNPH*3617A**	OVMAAB042112	28,600	12.5	15.5
3631788	24ABC630A**30	CNPH*3617A**+TDR		28,000	12.0	14.0
3630496	24ABC630A**30	CNPH*4221A**	58CV(A,X)070−12	28,000	13.0	15.5
3630552	24ABC630A**30	CNPH*4221A**	58CV(A,X)090−16	28,000	13.0	16.0
3630611	24ABC630A**30	CNPH*4221A**	58CV(A,X)110−20	28,200	13.0	16.0
3630676	24ABC630A**30	CNPH*4221A**	58CV(A,X)135−22	28,200	13.0	16.0
3630727	24ABC630A**30	CNPH*4221A**	58CV(A,X)155−22	28,200	13.0	16.0
3630838	24ABC630A**30	CNPH*4221A**	58ME(B,C)040−12	28,400	13.0	16.0
3630904	24ABC630A**30	CNPH*4221A**	58ME(B,C)060−12	28,400	13.0	16.0
3630966	24ABC630A**30	CNPH*4221A**	58ME(B,C)080−12	28,400	13.0	16.0
3631013	24ABC630A**30	CNPH*4221A**	58ME(B,C)080−16	28,600	13.0	16.0
3631168	24ABC630A**30	CNPH*4221A**	58MV(B,C)060−14	28,200	13.0	16.0
3631220	24ABC630A**30	CNPH*4221A**	58MV(B,C)080−14	28,000	13.0	15.5
3631271	24ABC630A**30	CNPH*4221A**	58MV(B,C)080−20	28,000	13.0	16.0
3631335	24ABC630A**30	CNPH*4221A**	58MV(B,C)100−20	27,800	13.0	15.5
3631393	24ABC630A**30	CNPH*4221A**	58MV(B,C)120−20	28,200	13.0	16.0
3631441	24ABC630A**30	CNPH*4221A**	58MVB040−14	28,000	13.0	15.5
3631516	24ABC630A**30	CNPH*4221A**	58PH*070−16	28,200	12.5	15.5
3631558	24ABC630A**30	CNPH*4221A**	58PH*090−16	28,400	13.0	16.0
3644973	24ABC630A**30	CNPH*4221A**	58VLR105−12	28,200	13.0	15.5
3644972	24ABC630A**30	CNPH*4221A**	58VMR105−12	27,800	13.0	15.5
3631789	24ABC630A**30	CNPH*4221A**+TDR		28,200	11.5	14.0
3630489	24ABC630A**30	CNPV*3014A**	58CV(A,X)070−12	27,800	12.5	15.0
3631781	24ABC630A**30	CNPV*3014A**+TDR		28,000	12.0	14.0
3630490	24ABC630A**30	CNPV*3017A**	58CV(A,X)070−12	27,800	12.5	15.5
3630544	24ABC630A**30	CNPV*3017A**	58CV(A,X)090−16	27,800	13.0	15.5
4137593	24ABC630A**30	CNPV*3017A**	58HDV040−−12	28,400	12.5	15.0
4137594	24ABC630A**30	CNPV*3017A**	58HDV060−−12	28,600	12.5	15.0
3630830	24ABC630A**30	CNPV*3017A**	58ME(B,C)040−12	28,200	13.0	16.0
3630896	24ABC630A**30	CNPV*3017A**	58ME(B,C)060−12	28,200	13.0	15.5
3630958	24ABC630A**30	CNPV*3017A**	58ME(B,C)080−12	28,000	13.0	16.0
3631005	24ABC630A**30	CNPV*3017A**	58ME(B,C)080−16	28,200	13.0	15.5
3631160	24ABC630A**30	CNPV*3017A**	58MV(B,C)060−14	28,000	13.0	15.5
3631508	24ABC630A**30	CNPV*3017A**	58PH*070−16	28,000	12.5	15.0
3631950	24ABC630A**30	CNPV*3017A**	58UVB060−14	28,000	13.0	15.5
3644957	24ABC630A**30	CNPV*3017A**	58VLR105−12	28,000	13.0	15.5
3644956	24ABC630A**30	CNPV*3017A**	58VMR105−12	27,600	13.0	15.5
4744725	24ABC630A**30	CNPV*3017A**	59*N*A060V17**14	28,200	12.7	15.5
4744726	24ABC630A**30	CNPV*3017A**	59*N*A080V17**14	28,400	12.7	15.5
4744727	24ABC630A**30	CNPV*3017A**	59*P5A060E17**14	28,600	12.7	15.5
4744728	24ABC630A**30	CNPV*3017A**	59*P5A080E17**16	28,800	12.7	15.5
4137596	24ABC630A**30	CNPV*3017A**	OVLAAB036098	28,400	12.5	15.0
4137595	24ABC630A**30	CNPV*3017A**	OVMAAB036098	28,400	12.5	15.0
4137597	24ABC630A**30	CNPV*3017A**	OVMAAB042112	28,600	12.5	15.5
3631782	24ABC630A**30	CNPV*3017A**+TDR		28,000	12.0	14.0
3630484	24ABC630A**30	CNPV*3117A**	58CV(A,X)070−12	28,400	13.0	16.0
3630539	24ABC630A**30	CNPV*3117A**	58CV(A,X)090−16	28,400	13.0	16.0
4137598	24ABC630A**30	CNPV*3117A**	58HDV040−−12	29,000	12.5	15.2
4137599	24ABC630A**30	CNPV*3117A**	58HDV060−−12	29,000	12.5	15.2
3630825	24ABC630A**30	CNPV*3117A**	58ME(B,C)040−12	28,800	13.0	16.0
3630891	24ABC630A**30	CNPV*3117A**	58ME(B,C)060−12	28,800	13.0	16.0
3630953	24ABC630A**30	CNPV*3117A**	58ME(B,C)080−12	28,800	13.0	16.0
3631000	24ABC630A**30	CNPV*3117A**	58ME(B,C)080−16	29,000	13.0	16.0
3631155	24ABC630A**30	CNPV*3117A**	58MV(B,C)060−14	28,600	13.0	16.0
3631503	24ABC630A**30	CNPV*3117A**	58PH*070−16	28,600	13.0	16.0
3631945	24ABC630A**30	CNPV*3117A**	58UVB060−14	28,600	13.0	16.0
3644959	24ABC630A**30	CNPV*3117A**	58VLR105−12	28,600	13.0	16.0
3644958	24ABC630A**30	CNPV*3117A**	58VMR105−12	28,200	13.0	16.0
4744729	24ABC630A**30	CNPV*3117A**	59*N*A060V17**14	29,000	13.0	16.0
4744730	24ABC630A**30	CNPV*3117A**	59*N*A080V17**14	29,000	13.0	16.0
4744731	24ABC630A**30	CNPV*3117A**	59*P5A060E17**14	29,200	13.0	16.0
4744732	24ABC630A**30	CNPV*3117A**	59*P5A080E17**16	29,400	13.0	16.0
4137601	24ABC630A**30	CNPV*3117A**	OVLAAB036098	29,000	12.5	15.5
4137600	24ABC630A**30	CNPV*3117A**	OVMAAB036098	29,000	12.5	15.0
4137602	24ABC630A**30	CNPV*3117A**	OVMAAB042112	29,000	12.5	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3630491	24ABC630A**30	CNPV*3617A**	58CV(A,X)070−12	27,800	12.5	15.5
3630545	24ABC630A**30	CNPV*3617A**	58CV(A,X)090−16	27,800	13.0	15.5
4137603	24ABC630A**30	CNPV*3617A**	58HDV040−−12	28,400	12.5	15.0
4137604	24ABC630A**30	CNPV*3617A**	58HDV060−−12	28,600	12.5	15.2
3630831	24ABC630A**30	CNPV*3617A**	58ME(B,C)040−12	28,200	13.0	16.0
3630897	24ABC630A**30	CNPV*3617A**	58ME(B,C)060−12	28,200	13.0	15.5
3630959	24ABC630A**30	CNPV*3617A**	58ME(B,C)080−12	28,000	13.0	16.0
3631006	24ABC630A**30	CNPV*3617A**	58ME(B,C)080−16	28,200	13.0	15.5
3631161	24ABC630A**30	CNPV*3617A**	58MV(B,C)060−14	28,000	13.0	15.5
3631509	24ABC630A**30	CNPV*3617A**	58PH*070−16	28,000	12.5	15.0
3631951	24ABC630A**30	CNPV*3617A**	58UVB060−14	28,000	13.0	15.5
3644961	24ABC630A**30	CNPV*3617A**	58VLR105−12	28,000	13.0	15.5
3644960	24ABC630A**30	CNPV*3617A**	58VMR105−12	27,600	13.0	15.5
4744733	24ABC630A**30	CNPV*3617A**	59*N*A060V17**14	28,200	12.7	15.5
4744734	24ABC630A**30	CNPV*3617A**	59*N*A080V17**14	28,400	12.7	15.5
4744735	24ABC630A**30	CNPV*3617A**	59*P5A060E17**14	28,600	12.7	15.5
4744736	24ABC630A**30	CNPV*3617A**	59*P5A080E17**16	28,800	12.7	15.5
4137606	24ABC630A**30	CNPV*3617A**	OVLAAB036098	28,400	12.5	15.0
4137605	24ABC630A**30	CNPV*3617A**	OVMAAB036098	28,400	12.5	15.0
4137607	24ABC630A**30	CNPV*3617A**	OVMAAB042112	28,600	12.5	15.5
3631783	24ABC630A**30	CNPV*3617A**+TDR		28,000	12.0	14.0
3630546	24ABC630A**30	CNPV*3621A**	58CV(A,X)090−16	27,800	13.0	16.0
3630606	24ABC630A**30	CNPV*3621A**	58CV(A,X)110−20	27,800	13.0	15.5
4137591	24ABC630A**30	CNPV*3621A**	58HDV040−−12	28,400	12.5	15.0
4137592	24ABC630A**30	CNPV*3621A**	58HDV060−−12	28,600	12.5	15.2
4137608	24ABC630A**30	CNPV*3621A**	58HDV080−−20	28,800	12.5	15.2
3630832	24ABC630A**30	CNPV*3621A**	58ME(B,C)040−12	28,200	13.0	16.0
3630898	24ABC630A**30	CNPV*3621A**	58ME(B,C)060−12	28,200	13.0	15.5
3630960	24ABC630A**30	CNPV*3621A**	58ME(B,C)080−12	28,000	13.0	16.0
3631007	24ABC630A**30	CNPV*3621A**	58ME(B,C)080−16	28,200	13.0	15.5
3631162	24ABC630A**30	CNPV*3621A**	58MV(B,C)060−14	28,000	13.0	15.5
3631215	24ABC630A**30	CNPV*3621A**	58MV(B,C)080−14	27,600	12.5	15.5
3631266	24ABC630A**30	CNPV*3621A**	58MV(B,C)080−20	27,800	12.5	15.5
3631330	24ABC630A**30	CNPV*3621A**	58MV(B,C)100−20	27,600	12.5	15.5
3631510	24ABC630A**30	CNPV*3621A**	58PH*070−16	28,000	12.5	15.0
3631553	24ABC630A**30	CNPV*3621A**	58PH*090−16	28,000	12.5	15.5
3631952	24ABC630A**30	CNPV*3621A**	58UVB060−14	28,000	13.0	15.5
3632005	24ABC630A**30	CNPV*3621A**	58UVB080−14	27,600	12.5	15.5
3632057	24ABC630A**30	CNPV*3621A**	58UVB080−20	27,800	12.5	15.5
3632121	24ABC630A**30	CNPV*3621A**	58UVB100−20	27,600	12.5	15.5
3644963	24ABC630A**30	CNPV*3621A**	58VLR105−12	28,000	13.0	15.5
3644962	24ABC630A**30	CNPV*3621A**	58VMR105−12	27,600	13.0	15.5
4744737	24ABC630A**30	CNPV*3621A**	59*N*A060V17**14	28,400	12.7	15.5
4744738	24ABC630A**30	CNPV*3621A**	59*N*A080V17**14	28,400	12.7	15.5
4744739	24ABC630A**30	CNPV*3621A**	59*N*A100V21**20	28,600	12.7	15.5
4744740	24ABC630A**30	CNPV*3621A**	59*P5A060E17**14	28,600	12.7	15.5
4744741	24ABC630A**30	CNPV*3621A**	59*P5A080E17**16	28,800	12.7	15.5
4137610	24ABC630A**30	CNPV*3621A**	OVLAAB036098	28,400	12.5	15.0
4137612	24ABC630A**30	CNPV*3621A**	OVLAAB048112	28,600	12.5	15.0
4137609	24ABC630A**30	CNPV*3621A**	OVMAAB036098	28,400	12.5	15.0
4137611	24ABC630A**30	CNPV*3621A**	OVMAAB042112	28,600	12.5	15.5
3631784	24ABC630A**30	CNPV*3621A**+TDR		28,000	12.0	14.0
4137613	24ABC630A**30	CNPV*3717A**	58HDV040−−12	29,000	12.5	15.2
4137614	24ABC630A**30	CNPV*3717A**	58HDV060−−12	29,000	12.5	15.5
4744742	24ABC630A**30	CNPV*3717A**	59*N*A060V17**14	29,200	13.0	16.0
4744743	24ABC630A**30	CNPV*3717A**	59*N*A080V17**14	29,400	13.2	16.5
4744744	24ABC630A**30	CNPV*3717A**	59*P5A060E17**14	29,600	13.0	16.0
4744745	24ABC630A**30	CNPV*3717A**	59*P5A080E17**16	29,800	13.0	16.0
4137616	24ABC630A**30	CNPV*3717A**	OVLAAB036098	29,000	13.0	16.0
4137615	24ABC630A**30	CNPV*3717A**	OVMAAB036098	29,000	12.5	15.5
4137617	24ABC630A**30	CNPV*3717A**	OVMAAB042112	29,000	13.0	16.0
3630492	24ABC630A**30	CNPV*4217A**	58CV(A,X)070−12	28,200	13.0	16.0
3630547	24ABC630A**30	CNPV*4217A**	58CV(A,X)090−16	28,200	13.0	16.0
3630833	24ABC630A**30	CNPV*4217A**	58ME(B,C)040−12	28,600	13.0	16.0
3630899	24ABC630A**30	CNPV*4217A**	58ME(B,C)060−12	28,600	13.0	16.0
3630961	24ABC630A**30	CNPV*4217A**	58ME(B,C)080−12	28,600	13.0	16.0
3631008	24ABC630A**30	CNPV*4217A**	58ME(B,C)080−16	28,800	13.0	16.0
3631163	24ABC630A**30	CNPV*4217A**	58MV(B,C)060−14	28,400	13.0	16.0
3631511	24ABC630A**30	CNPV*4217A**	58PH*070−16	28,400	13.0	15.5
3631953	24ABC630A**30	CNPV*4217A**	58UVB060−14	28,400	13.0	16.0
3644965	24ABC630A**30	CNPV*4217A**	58VLR105−12	28,400	13.0	16.0
3644964	24ABC630A**30	CNPV*4217A**	58VMR105−12	28,000	13.0	16.0
3631785	24ABC630A**30	CNPV*4217A**+TDR		28,400	11.5	14.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3630548	24ABC630A**30	CNPV*4221A**	58CV(A,X)090−16	28,000	13.0	16.0
3630607	24ABC630A**30	CNPV*4221A**	58CV(A,X)110−20	28,200	13.0	16.0
3630834	24ABC630A**30	CNPV*4221A**	58ME(B,C)040−12	28,400	13.0	16.0
3630900	24ABC630A**30	CNPV*4221A**	58ME(B,C)060−12	28,400	13.0	16.0
3630962	24ABC630A**30	CNPV*4221A**	58ME(B,C)080−12	28,400	13.0	16.0
3631009	24ABC630A**30	CNPV*4221A**	58ME(B,C)080−16	28,600	13.0	16.0
3631164	24ABC630A**30	CNPV*4221A**	58MV(B,C)060−14	28,200	13.0	16.0
3631216	24ABC630A**30	CNPV*4221A**	58MV(B,C)080−14	28,000	13.0	15.5
3631267	24ABC630A**30	CNPV*4221A**	58MV(B,C)080−20	28,000	13.0	16.0
3631331	24ABC630A**30	CNPV*4221A**	58MV(B,C)100−20	27,800	13.0	15.5
3631512	24ABC630A**30	CNPV*4221A**	58PH*070−16	28,200	12.5	15.5
3631554	24ABC630A**30	CNPV*4221A**	58PH*090−16	28,400	13.0	16.0
3631954	24ABC630A**30	CNPV*4221A**	58UVB060−14	28,200	13.0	16.0
3632007	24ABC630A**30	CNPV*4221A**	58UVB080−14	28,000	13.0	15.5
3632058	24ABC630A**30	CNPV*4221A**	58UVB080−20	28,000	13.0	16.0
3632122	24ABC630A**30	CNPV*4221A**	58UVB100−20	27,800	13.0	15.5
3644967	24ABC630A**30	CNPV*4221A**	58VLR105−12	28,200	13.0	15.5
3644966	24ABC630A**30	CNPV*4221A**	58VMR105−12	27,800	13.0	15.5
3631786	24ABC630A**30	CNPV*4221A**+TDR		28,200	11.5	14.0
3818136	24ABC630A**30	CNPV*4821A**	58MV(B,C)080−14	29,000	13.0	16.0
3818137	24ABC630A**30	CNPV*4821A**	58MV(B,C)080−20	29,000	13.0	16.0
3818138	24ABC630A**30	CNPV*4821A**	58MV(B,C)100−20	29,000	13.0	16.0
4141770	24ABC630A**30	CNPV*4821A**	58UVB080−14	29,000	13.0	16.0
4141771	24ABC630A**30	CNPV*4821A**	58UVB080−20	29,000	13.0	16.0
4141772	24ABC630A**30	CNPV*4821A**	58UVB100−20	29,000	13.0	16.0
3630497	24ABC630A**30	CSPH*3012A**	58CV(A,X)070−12	27,800	12.5	15.5
3630553	24ABC630A**30	CSPH*3012A**	58CV(A,X)090−16	28,000	13.0	15.5
3630612	24ABC630A**30	CSPH*3012A**	58CV(A,X)110−20	28,000	13.0	15.5
3630677	24ABC630A**30	CSPH*3012A**	58CV(A,X)135−22	28,000	13.0	15.5
3630728	24ABC630A**30	CSPH*3012A**	58CV(A,X)155−22	28,000	13.0	16.0
3630772	24ABC630A**30	CSPH*3012A**	58HDV040−−12	27,800	12.5	14.5
3630781	24ABC630A**30	CSPH*3012A**	58HDV060−−12	28,000	12.5	15.0
3630839	24ABC630A**30	CSPH*3012A**	58ME(B,C)040−12	28,200	13.0	16.0
3630905	24ABC630A**30	CSPH*3012A**	58ME(B,C)060−12	28,200	13.0	15.5
3630967	24ABC630A**30	CSPH*3012A**	58ME(B,C)080−12	28,200	13.0	15.5
3631014	24ABC630A**30	CSPH*3012A**	58ME(B,C)080−16	28,200	13.0	15.5
3631169	24ABC630A**30	CSPH*3012A**	58MV(B,C)060−14	28,000	13.0	15.5
3631221	24ABC630A**30	CSPH*3012A**	58MV(B,C)080−14	27,800	12.5	15.5
3631272	24ABC630A**30	CSPH*3012A**	58MV(B,C)080−20	28,000	12.5	15.5
3631336	24ABC630A**30	CSPH*3012A**	58MV(B,C)100−20	27,600	12.5	15.5
3631394	24ABC630A**30	CSPH*3012A**	58MV(B,C)120−20	28,000	13.0	15.5
3631442	24ABC630A**30	CSPH*3012A**	58MVB040−14	27,800	12.5	15.0
3631517	24ABC630A**30	CSPH*3012A**	58PH*070−16	28,000	12.5	15.0
3631559	24ABC630A**30	CSPH*3012A**	58PH*090−16	28,000	12.5	15.5
3644975	24ABC630A**30	CSPH*3012A**	58VLR105−12	28,000	13.0	15.5
3644974	24ABC630A**30	CSPH*3012A**	58VMR105−12	27,600	13.0	15.5
4744764	24ABC630A**30	CSPH*3012A**	59*N*A060V17**14	28,400	12.7	15.5
4744765	24ABC630A**30	CSPH*3012A**	59*N*A080V17**14	28,600	12.7	15.5
4744766	24ABC630A**30	CSPH*3012A**	59*N*A100V21**20	28,800	12.7	15.5
4744767	24ABC630A**30	CSPH*3012A**	59*N*A120V24**22	28,600	13.0	16.0
4744768	24ABC630A**30	CSPH*3012A**	59*P5A060E17**14	28,600	12.7	15.5
4744769	24ABC630A**30	CSPH*3012A**	59*P5A080E17**16	28,800	12.7	15.5
4137631	24ABC630A**30	CSPH*3012A**	OVLAAB036098	28,400	12.5	15.0
4137633	24ABC630A**30	CSPH*3012A**	OVLAAB048112	28,800	12.5	15.0
4137630	24ABC630A**30	CSPH*3012A**	OVMAAB036098	28,600	12.5	15.0
4137632	24ABC630A**30	CSPH*3012A**	OVMAAB042112	28,600	12.5	15.0
3631791	24ABC630A**30	CSPH*3012A**+TDR		28,200	11.5	14.0
3630498	24ABC630A**30	CSPH*3612A**	58CV(A,X)070−12	28,200	13.0	16.0
3630554	24ABC630A**30	CSPH*3612A**	58CV(A,X)090−16	28,400	13.0	16.0
3630613	24ABC630A**30	CSPH*3612A**	58CV(A,X)110−20	28,400	13.0	16.0
3630678	24ABC630A**30	CSPH*3612A**	58CV(A,X)135−22	28,400	13.0	16.0
3630729	24ABC630A**30	CSPH*3612A**	58CV(A,X)155−22	28,400	13.0	16.0
3630773	24ABC630A**30	CSPH*3612A**	58HDV040−−12	28,400	12.5	15.0
3630782	24ABC630A**30	CSPH*3612A**	58HDV060−−12	28,600	12.5	15.0
3630840	24ABC630A**30	CSPH*3612A**	58ME(B,C)040−12	28,800	13.0	16.0
3630906	24ABC630A**30	CSPH*3612A**	58ME(B,C)060−12	28,800	13.0	16.0
3630968	24ABC630A**30	CSPH*3612A**	58ME(B,C)080−12	28,600	13.0	16.0
3631015	24ABC630A**30	CSPH*3612A**	58ME(B,C)080−16	28,800	13.0	16.0
3631170	24ABC630A**30	CSPH*3612A**	58MV(B,C)060−14	28,400	13.0	16.0
3631222	24ABC630A**30	CSPH*3612A**	58MV(B,C)080−14	28,200	13.0	16.0
3631273	24ABC630A**30	CSPH*3612A**	58MV(B,C)080−20	28,400	13.0	16.0
3631337	24ABC630A**30	CSPH*3612A**	58MV(B,C)100−20	28,200	13.0	16.0
3631395	24ABC630A**30	CSPH*3612A**	58MV(B,C)120−20	28,400	13.0	16.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3631443	24ABC630A**30	CSPH*3612A**	58MVB040−14	28,200	13.0	16.0
3631518	24ABC630A**30	CSPH*3612A**	58PH*070−16	28,600	13.0	15.5
3631560	24ABC630A**30	CSPH*3612A**	58PH*090−16	28,600	13.0	16.0
3644977	24ABC630A**30	CSPH*3612A**	58VLR105−12	28,400	13.0	16.0
3644976	24ABC630A**30	CSPH*3612A**	58VMR105−12	28,000	13.0	16.0
4744770	24ABC630A**30	CSPH*3612A**	59*N*A060V17**14	28,800	13.0	16.0
4744771	24ABC630A**30	CSPH*3612A**	59*N*A080V17**14	29,000	13.0	16.0
4744772	24ABC630A**30	CSPH*3612A**	59*N*A100V21**20	29,200	13.0	16.0
4744773	24ABC630A**30	CSPH*3612A**	59*N*A120V24**22	29,000	13.2	16.5
4744774	24ABC630A**30	CSPH*3612A**	59*P5A060E17**14	29,200	13.0	16.0
4744775	24ABC630A**30	CSPH*3612A**	59*P5A080E17**16	29,400	13.0	16.0
4137635	24ABC630A**30	CSPH*3612A**	OVLAAB036098	29,000	12.5	15.5
4137637	24ABC630A**30	CSPH*3612A**	OVLAAB048112	25,000	12.5	15.5
4137634	24ABC630A**30	CSPH*3612A**	OVMAAB036098	29,000	12.5	15.0
4137636	24ABC630A**30	CSPH*3612A**	OVMAAB042112	29,000	13.0	16.0
3631792	24ABC630A**30	CSPH*3612A**+TDR		28,600	12.0	14.0
3630499	24ABC630A**30	CSPH*4212A**	58CV(A,X)070−12	28,400	13.0	16.0
3630555	24ABC630A**30	CSPH*4212A**	58CV(A,X)090−16	28,400	13.0	16.0
3630614	24ABC630A**30	CSPH*4212A**	58CV(A,X)110−20	28,600	13.0	16.0
3630679	24ABC630A**30	CSPH*4212A**	58CV(A,X)135−22	28,600	13.0	16.0
3630730	24ABC630A**30	CSPH*4212A**	58CV(A,X)155−22	28,600	13.0	16.0
3630841	24ABC630A**30	CSPH*4212A**	58ME(B,C)040−12	29,000	13.0	16.0
3630907	24ABC630A**30	CSPH*4212A**	58ME(B,C)060−12	29,000	13.0	16.0
3630969	24ABC630A**30	CSPH*4212A**	58ME(B,C)080−12	28,800	13.0	16.0
3631016	24ABC630A**30	CSPH*4212A**	58ME(B,C)080−16	29,000	13.0	16.0
3631171	24ABC630A**30	CSPH*4212A**	58MV(B,C)060−14	28,600	13.0	16.0
3631223	24ABC630A**30	CSPH*4212A**	58MV(B,C)080−14	28,400	13.0	16.0
3631274	24ABC630A**30	CSPH*4212A**	58MV(B,C)080−20	28,400	13.0	16.0
3631338	24ABC630A**30	CSPH*4212A**	58MV(B,C)100−20	28,200	13.0	16.0
3631396	24ABC630A**30	CSPH*4212A**	58MV(B,C)120−20	28,600	13.0	16.0
3631444	24ABC630A**30	CSPH*4212A**	58MVB040−14	28,400	13.0	16.0
3631519	24ABC630A**30	CSPH*4212A**	58PH*070−16	28,600	13.0	16.0
3631561	24ABC630A**30	CSPH*4212A**	58PH*090−16	28,800	13.0	16.0
3644979	24ABC630A**30	CSPH*4212A**	58VLR105−12	28,600	13.0	16.0
3644978	24ABC630A**30	CSPH*4212A**	58VMR105−12	28,200	13.0	16.0
3631793	24ABC630A**30	CSPH*4212A**+TDR		28,600	12.0	14.0
3804400	24ABC630A**30	FB4CNF030		28,000	12.5	14.5
3693280	24ABC630A**30	FB4CNF030+TXV		28,000	12.5	15.0
3804401	24ABC630A**30	FB4CNF036		28,000	12.5	14.5
3693281	24ABC630A**30	FB4CNF036+TXV		28,000	12.5	15.0
3631709	24ABC630A**30	FE4AN(B,F)003+UI		28,200	13.0	16.0
3631712	24ABC630A**30	FE4AN(B,F)005+UI		28,800	13.0	16.5
3631722	24ABC630A**30	FE4ANF002+UI		28,000	13.0	16.0
3631724	24ABC630A**30	FE5ANB004+UI		29,000	13.0	16.5
3631757	24ABC630A**30	FF1ENP030		27,600	12.0	14.0
3631759	24ABC630A**30	FF1ENP031		28,200	12.5	15.0
3631761	24ABC630A**30	FF1ENP036		28,000	12.0	14.0
3631764	24ABC630A**30	FF1ENP037		28,200	12.5	15.0
3631805	24ABC630A**30	FV4CN(B,F)003		28,200	13.0	16.0
3631808	24ABC630A**30	FV4CN(B,F)005		28,800	13.0	16.0
3631818	24ABC630A**30	FV4CNF002		28,000	13.0	16.0
3632299	24ABC630A**30	FX4DN(B,F)031		28,400	13.0	15.5
3632300	24ABC630A**30	FX4DN(B,F)037		28,800	13.0	16.0
3804402	24ABC630A**30	FY5BNF030		28,000	12.5	14.5
3693293	24ABC630A**30	FY5BNF030+TXV		28,200	12.5	14.5
3804403	24ABC630A**30	FY5BNF036		28,000	12.0	14.0
3693294	24ABC630A**30	FY5BNF036+TXV		28,200	12.0	14.5
3631820	24ABC636A**30	†CNPV*3717A**+TDR		34,400	12.0	14.5
3630501	24ABC636A**30	CAP**3614A**	58CV(A,X)070−12	32,800	12.0	15.0
3631492	24ABC636A**30	CAP**3614A**	58PH*045−08	32,600	11.5	14.0
3631821	24ABC636A**30	CAP**3614A**+TDR		32,800	11.5	14.0
3630502	24ABC636A**30	CAP**3617A**	58CV(A,X)070−12	32,800	12.0	15.0
3630557	24ABC636A**30	CAP**3617A**	58CV(A,X)090−16	33,000	12.5	15.5
3630843	24ABC636A**30	CAP**3617A**	58ME(B,C)040−12	33,200	12.5	15.5
3630909	24ABC636A**30	CAP**3617A**	58ME(B,C)060−12	33,200	12.5	15.0
3630971	24ABC636A**30	CAP**3617A**	58ME(B,C)080−12	33,000	12.5	15.0
3631018	24ABC636A**30	CAP**3617A**	58ME(B,C)080−16	33,200	12.5	15.0
3631173	24ABC636A**30	CAP**3617A**	58MV(B,C)060−14	33,000	12.5	15.0
3631493	24ABC636A**30	CAP**3617A**	58PH*045−08	32,800	12.0	14.5
3631521	24ABC636A**30	CAP**3617A**	58PH*070−16	33,000	12.0	15.0
3631963	24ABC636A**30	CAP**3617A**	58UVB060−14	33,000	12.5	15.0
3644981	24ABC636A**30	CAP**3617A**	58VLR105−12	33,000	12.5	15.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3644980	24ABC636A**30	CAP**3617A**	58VMR105−12	32,600	12.5	15.0
4744776	24ABC636A**30	CAP**3617A**	59*N*A060V17**14	32,800	12.5	15.2
4744777	24ABC636A**30	CAP**3617A**	59*N*A080V17**14	33,000	12.7	15.5
4744778	24ABC636A**30	CAP**3617A**	59*P5A060E17**14	33,200	12.5	15.0
4744779	24ABC636A**30	CAP**3617A**	59*P5A080E17**16	33,200	12.7	15.5
4137639	24ABC636A**30	CAP**3617A**	OVLAAB036098	33,000	12.5	14.5
4137638	24ABC636A**30	CAP**3617A**	OVMAAB036098	33,200	12.5	14.5
4137640	24ABC636A**30	CAP**3617A**	OVMAAB042112	33,200	12.5	15.2
3631822	24ABC636A**30	CAP**3617A**+TDR		33,000	11.5	14.0
3630774	24ABC636A**30	CAP**3619A**	58HDV040−−12	32,800	11.5	14.5
3630783	24ABC636A**30	CAP**3619A**	58HDV060−−12	33,000	12.0	14.5
4744792	24ABC636A**30	CAP**3619A**	59*N*A060V17**14	32,800	12.5	15.2
4744793	24ABC636A**30	CAP**3619A**	59*N*A080V17**14	33,000	12.7	15.5
4744794	24ABC636A**30	CAP**3619A**	59*N*A100V21**20	33,200	12.7	15.5
4744795	24ABC636A**30	CAP**3619A**	59*P5A060E17**14	33,200	12.5	15.0
4744796	24ABC636A**30	CAP**3619A**	59*P5A080E17**16	33,200	12.7	15.5
3631829	24ABC636A**30	CAP**3619A**+TDR		33,000	11.5	14.0
3630558	24ABC636A**30	CAP**3621A**	58CV(A,X)090−16	33,000	12.5	15.5
3630615	24ABC636A**30	CAP**3621A**	58CV(A,X)110−20	33,000	12.5	15.5
3630844	24ABC636A**30	CAP**3621A**	58ME(B,C)040−12	33,200	12.5	15.5
3630910	24ABC636A**30	CAP**3621A**	58ME(B,C)060−12	33,400	12.5	15.5
3630972	24ABC636A**30	CAP**3621A**	58ME(B,C)080−12	33,200	12.5	15.5
3631019	24ABC636A**30	CAP**3621A**	58ME(B,C)080−16	33,200	12.5	15.0
3631058	24ABC636A**30	CAP**3621A**	58ME(B,C)100−20	33,200	13.0	16.0
3631174	24ABC636A**30	CAP**3621A**	58MV(B,C)060−14	33,000	12.5	15.5
3631224	24ABC636A**30	CAP**3621A**	58MV(B,C)080−14	33,000	12.0	15.0
3631275	24ABC636A**30	CAP**3621A**	58MV(B,C)080−20	32,800	12.5	15.0
3631339	24ABC636A**30	CAP**3621A**	58MV(B,C)100−20	33,000	12.5	15.5
3631522	24ABC636A**30	CAP**3621A**	58PH*070−16	33,000	12.0	15.0
3631562	24ABC636A**30	CAP**3621A**	58PH*090−16	33,200	12.5	15.5
3631613	24ABC636A**30	CAP**3621A**	58PH*110−20	33,400	12.5	15.5
3631964	24ABC636A**30	CAP**3621A**	58UVB060−14	33,000	12.5	15.5
3632015	24ABC636A**30	CAP**3621A**	58UVB080−14	33,000	12.0	15.0
3632066	24ABC636A**30	CAP**3621A**	58UVB080−20	32,800	12.5	15.0
3632130	24ABC636A**30	CAP**3621A**	58UVB100−20	33,000	12.5	15.5
3644983	24ABC636A**30	CAP**3621A**	58VLR105−12	33,000	12.5	15.0
3644985	24ABC636A**30	CAP**3621A**	58VLR120−20	33,000	13.0	15.5
3644982	24ABC636A**30	CAP**3621A**	58VMR105−12	32,800	12.5	15.0
3644984	24ABC636A**30	CAP**3621A**	58VMR120−20	32,800	12.5	15.5
4744780	24ABC636A**30	CAP**3621A**	59*N*A060V17**14	33,000	12.5	15.2
4744781	24ABC636A**30	CAP**3621A**	59*N*A080V17**14	33,000	12.7	15.5
4744782	24ABC636A**30	CAP**3621A**	59*N*A100V21**20	33,200	12.7	15.5
4744783	24ABC636A**30	CAP**3621A**	59*P5A060E17**14	33,400	12.5	15.2
4744784	24ABC636A**30	CAP**3621A**	59*P5A080E17**16	33,200	12.7	15.5
4137641	24ABC636A**30	CAP**3621A**	OVLAAB048112	33,400	12.5	15.2
3631823	24ABC636A**30	CAP**3621A**+TDR		33,000	11.5	14.0
3630559	24ABC636A**30	CAP**4221A**	58CV(A,X)090−16	33,200	12.5	15.5
3630616	24ABC636A**30	CAP**4221A**	58CV(A,X)110−20	33,200	12.5	15.5
3630845	24ABC636A**30	CAP**4221A**	58ME(B,C)040−12	33,400	12.5	15.5
3630911	24ABC636A**30	CAP**4221A**	58ME(B,C)060−12	33,600	12.5	15.5
3630973	24ABC636A**30	CAP**4221A**	58ME(B,C)080−12	33,400	12.5	15.5
3631020	24ABC636A**30	CAP**4221A**	58ME(B,C)080−16	33,400	12.5	15.5
3631059	24ABC636A**30	CAP**4221A**	58ME(B,C)100−20	33,400	13.0	16.0
3631175	24ABC636A**30	CAP**4221A**	58MV(B,C)060−14	33,400	12.5	15.5
3631225	24ABC636A**30	CAP**4221A**	58MV(B,C)080−14	33,200	12.5	15.0
3631276	24ABC636A**30	CAP**4221A**	58MV(B,C)080−20	33,200	12.5	15.5
3631340	24ABC636A**30	CAP**4221A**	58MV(B,C)100−20	33,200	12.5	15.5
3631523	24ABC636A**30	CAP**4221A**	58PH*070−16	33,200	12.0	15.0
3631563	24ABC636A**30	CAP**4221A**	58PH*090−16	33,400	13.0	16.0
3631614	24ABC636A**30	CAP**4221A**	58PH*110−20	33,600	13.0	16.0
3631965	24ABC636A**30	CAP**4221A**	58UVB060−14	33,400	12.5	15.5
3632016	24ABC636A**30	CAP**4221A**	58UVB080−14	33,200	12.5	15.0
3632067	24ABC636A**30	CAP**4221A**	58UVB080−20	33,200	12.5	15.5
3632131	24ABC636A**30	CAP**4221A**	58UVB100−20	33,200	12.5	15.5
3644987	24ABC636A**30	CAP**4221A**	58VLR105−12	33,200	12.5	15.0
3644989	24ABC636A**30	CAP**4221A**	58VLR120−20	33,200	13.0	16.0
3644986	24ABC636A**30	CAP**4221A**	58VMR105−12	33,000	12.5	15.0
3644988	24ABC636A**30	CAP**4221A**	58VMR120−20	33,000	13.0	15.5
4744785	24ABC636A**30	CAP**4221A**	59*N*A060V17**14	33,200	12.5	15.2
4744786	24ABC636A**30	CAP**4221A**	59*N*A080V17**14	33,200	12.7	15.5
4744787	24ABC636A**30	CAP**4221A**	59*N*A100V21**20	33,400	12.7	15.5
4744788	24ABC636A**30	CAP**4221A**	59*P5A060E17**14	33,600	12.5	15.2
4744789	24ABC636A**30	CAP**4221A**	59*P5A080E17**16	33,400	12.7	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
4137642	24ABC636A**30	CAP**4221A**	OVLAAB048112	33,800	12.5	15.2
3631824	24ABC636A**30	CAP**4221A**+TDR		33,400	11.5	14.0
3630617	24ABC636A**30	CAP**4224A**	58CV(A,X)110−20	33,200	13.0	15.5
3630680	24ABC636A**30	CAP**4224A**	58CV(A,X)135−22	33,200	13.0	16.0
3630731	24ABC636A**30	CAP**4224A**	58CV(A,X)155−22	33,400	13.0	16.0
3631060	24ABC636A**30	CAP**4224A**	58ME(B,C)100−20	33,400	13.0	16.0
3631226	24ABC636A**30	CAP**4224A**	58MV(B,C)080−14	33,200	12.5	15.0
3631277	24ABC636A**30	CAP**4224A**	58MV(B,C)080−20	33,200	12.5	15.5
3631341	24ABC636A**30	CAP**4224A**	58MV(B,C)100−20	33,200	12.5	15.5
3631397	24ABC636A**30	CAP**4224A**	58MV(B,C)120−20	33,200	13.0	16.0
3631445	24ABC636A**30	CAP**4224A**	58MVB040−14	33,000	12.5	15.0
3631564	24ABC636A**30	CAP**4224A**	58PH*090−16	33,600	13.0	16.0
3631615	24ABC636A**30	CAP**4224A**	58PH*110−20	33,600	13.0	16.0
3632017	24ABC636A**30	CAP**4224A**	58UVB080−14	33,200	12.5	15.0
3632068	24ABC636A**30	CAP**4224A**	58UVB080−20	33,200	12.5	15.5
3632132	24ABC636A**30	CAP**4224A**	58UVB100−20	33,200	12.5	15.5
3632188	24ABC636A**30	CAP**4224A**	58UVB120−20	33,200	13.0	16.0
3644991	24ABC636A**30	CAP**4224A**	58VLR120−20	33,200	13.0	16.0
3644990	24ABC636A**30	CAP**4224A**	58VMR120−20	33,000	13.0	15.5
4744790	24ABC636A**30	CAP**4224A**	59*N*A100V21**20	33,400	12.7	15.5
4744791	24ABC636A**30	CAP**4224A**	59*N*A120V24**22	33,400	13.0	16.0
3631825	24ABC636A**30	CAP**4224A**+TDR		33,400	11.5	14.0
3630503	24ABC636A**30	CAP**4817A**	58CV(A,X)070−12	33,600	12.5	15.5
3630560	24ABC636A**30	CAP**4817A**	58CV(A,X)090−16	33,800	13.0	16.0
3630846	24ABC636A**30	CAP**4817A**	58ME(B,C)040−12	34,000	13.0	16.0
3630912	24ABC636A**30	CAP**4817A**	58ME(B,C)060−12	34,200	13.0	16.0
3630974	24ABC636A**30	CAP**4817A**	58ME(B,C)080−12	34,000	13.0	16.0
3631021	24ABC636A**30	CAP**4817A**	58ME(B,C)080−16	34,200	13.0	16.0
3631176	24ABC636A**30	CAP**4817A**	58MV(B,C)060−14	34,000	13.0	16.0
3631494	24ABC636A**30	CAP**4817A**	58PH*045−08	33,800	12.0	14.5
3631524	24ABC636A**30	CAP**4817A**	58PH*070−16	33,800	12.0	15.0
3631966	24ABC636A**30	CAP**4817A**	58UVB060−14	34,000	13.0	16.0
3644993	24ABC636A**30	CAP**4817A**	58VLR105−12	34,000	12.5	15.5
3644992	24ABC636A**30	CAP**4817A**	58VMR105−12	33,600	13.0	15.5
3631826	24ABC636A**30	CAP**4817A**+TDR		34,000	11.5	14.0
3630561	24ABC636A**30	CAP**4821A**	58CV(A,X)090−16	33,600	13.0	16.0
3630618	24ABC636A**30	CAP**4821A**	58CV(A,X)110−20	33,600	13.0	16.0
3630847	24ABC636A**30	CAP**4821A**	58ME(B,C)040−12	33,800	13.0	16.0
3630913	24ABC636A**30	CAP**4821A**	58ME(B,C)060−12	34,000	13.0	16.0
3630975	24ABC636A**30	CAP**4821A**	58ME(B,C)080−12	33,800	13.0	16.0
3631022	24ABC636A**30	CAP**4821A**	58ME(B,C)080−16	34,000	13.0	15.5
3631061	24ABC636A**30	CAP**4821A**	58ME(B,C)100−20	33,800	13.0	16.0
3631177	24ABC636A**30	CAP**4821A**	58MV(B,C)060−14	33,800	13.0	15.5
3631227	24ABC636A**30	CAP**4821A**	58MV(B,C)080−14	33,600	12.5	15.5
3631278	24ABC636A**30	CAP**4821A**	58MV(B,C)080−20	33,600	12.5	15.5
3631342	24ABC636A**30	CAP**4821A**	58MV(B,C)100−20	33,600	13.0	15.5
3631525	24ABC636A**30	CAP**4821A**	58PH*070−16	33,600	12.0	15.0
3631565	24ABC636A**30	CAP**4821A**	58PH*090−16	34,000	13.0	16.0
3631616	24ABC636A**30	CAP**4821A**	58PH*110−20	34,000	13.0	16.0
3631967	24ABC636A**30	CAP**4821A**	58UVB060−14	33,800	13.0	15.5
3632018	24ABC636A**30	CAP**4821A**	58UVB080−14	33,600	12.5	15.5
3632069	24ABC636A**30	CAP**4821A**	58UVB080−20	33,600	12.5	15.5
3632133	24ABC636A**30	CAP**4821A**	58UVB100−20	33,600	13.0	15.5
3644995	24ABC636A**30	CAP**4821A**	58VLR105−12	33,800	12.5	15.5
3644997	24ABC636A**30	CAP**4821A**	58VLR120−20	33,600	13.0	16.0
3644994	24ABC636A**30	CAP**4821A**	58VMR105−12	33,400	13.0	15.5
3644996	24ABC636A**30	CAP**4821A**	58VMR120−20	33,400	13.0	15.5
3631827	24ABC636A**30	CAP**4821A**+TDR		33,800	11.5	14.0
3630784	24ABC636A**30	CAP**4823A**	58HDV060−−12	33,800	12.0	15.0
3630787	24ABC636A**30	CAP**4823A**	58HDV080−−20	34,200	12.5	15.0
3631830	24ABC636A**30	CAP**4823A**+TDR		33,800	11.5	14.0
3630619	24ABC636A**30	CAP**4824A**	58CV(A,X)110−20	33,600	13.0	16.0
3630681	24ABC636A**30	CAP**4824A**	58CV(A,X)135−22	33,600	13.0	16.0
3630732	24ABC636A**30	CAP**4824A**	58CV(A,X)155−22	33,800	13.0	16.0
3631062	24ABC636A**30	CAP**4824A**	58ME(B,C)100−20	33,800	13.0	16.0
3631228	24ABC636A**30	CAP**4824A**	58MV(B,C)080−14	33,600	12.5	15.5
3631279	24ABC636A**30	CAP**4824A**	58MV(B,C)080−20	33,600	13.0	15.5
3631343	24ABC636A**30	CAP**4824A**	58MV(B,C)100−20	33,800	13.0	16.0
3631398	24ABC636A**30	CAP**4824A**	58MV(B,C)120−20	33,600	13.0	16.0
3631446	24ABC636A**30	CAP**4824A**	58MVB040−14	33,400	12.5	15.5
3631566	24ABC636A**30	CAP**4824A**	58PH*090−16	34,000	13.0	16.0
3631617	24ABC636A**30	CAP**4824A**	58PH*110−20	34,200	13.0	16.0
3632019	24ABC636A**30	CAP**4824A**	58UVB080−14	33,600	12.5	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3632070	24ABC636A**30	CAP**4824A**	58UVB080−20	33,600	13.0	15.5
3632134	24ABC636A**30	CAP**4824A**	58UVB100−20	33,800	13.0	16.0
3632189	24ABC636A**30	CAP**4824A**	58UVB120−20	33,600	13.0	16.0
3644999	24ABC636A**30	CAP**4824A**	58VLR120−20	33,600	13.0	16.0
3644998	24ABC636A**30	CAP**4824A**	58VMR120−20	33,600	13.0	16.0
3631828	24ABC636A**30	CAP**4824A**+TDR		33,800	11.5	14.0
3901759	24ABC636A**30	CAP**6021A**	58CV(A,X)110−20	34,000	13.0	16.0
3901762	24ABC636A**30	CAP**6021A**	58ME(B,C)100−20	34,000	13.0	16.0
3901756	24ABC636A**30	CAP**6021A**	58MV(B,C)080−14	34,000	13.0	15.5
3901757	24ABC636A**30	CAP**6021A**	58MV(B,C)080−20	34,000	13.0	16.0
3901758	24ABC636A**30	CAP**6021A**	58MV(B,C)100−20	34,000	13.0	16.0
3901760	24ABC636A**30	CAP**6021A**	58PH*090−16	34,000	13.0	16.0
3901761	24ABC636A**30	CAP**6021A**	58PH*110−20	34,000	13.0	16.0
4141773	24ABC636A**30	CAP**6021A**	58UVB080−14	34,000	13.0	15.5
4141774	24ABC636A**30	CAP**6021A**	58UVB080−20	34,000	13.0	16.0
4141775	24ABC636A**30	CAP**6021A**	58UVB100−20	34,000	13.0	16.0
3901764	24ABC636A**30	CAP**6021A**	58VLR120−20	34,000	13.0	16.0
3901763	24ABC636A**30	CAP**6021A**	58VMR120−20	34,000	13.0	16.0
3901755	24ABC636A**30	CAP**6021A**+TDR		34,000	12.0	14.5
3901768	24ABC636A**30	CAP**6024A**	58CV(A,X)135−22	34,000	13.0	16.0
3901769	24ABC636A**30	CAP**6024A**	58CV(A,X)155−22	34,000	13.0	16.0
3901770	24ABC636A**30	CAP**6024A**	58HDV100−−20	34,000	13.0	16.0
3901767	24ABC636A**30	CAP**6024A**	58MV(B,C)120−20	34,000	13.0	16.0
3901766	24ABC636A**30	CAP**6024A**	58MVB040−14	34,000	13.0	15.5
4141776	24ABC636A**30	CAP**6024A**	58UVB120−20	34,000	13.0	16.0
3901765	24ABC636A**30	CAP**6024A**+TDR		34,000	12.0	14.5
3901774	24ABC636A**30	CAP**6025A**	58CV(A,X)135−22	34,000	13.0	16.0
3901775	24ABC636A**30	CAP**6025A**	58CV(A,X)155−22	34,000	13.0	16.0
3901776	24ABC636A**30	CAP**6025A**	58HDV100−−20	34,000	13.0	16.0
3901773	24ABC636A**30	CAP**6025A**	58MV(B,C)120−20	34,000	13.0	16.0
3901772	24ABC636A**30	CAP**6025A**	58MVB040−14	34,000	13.0	16.0
4141777	24ABC636A**30	CAP**6025A**	58UVB120−20	34,000	13.0	16.0
3901771	24ABC636A**30	CAP**6025A**+TDR		34,600	12.0	14.5
3630506	24ABC636A**30	CNPH*3617A**	58CV(A,X)070−12	32,800	12.0	15.0
3630567	24ABC636A**30	CNPH*3617A**	58CV(A,X)090−16	32,800	12.5	15.0
3630624	24ABC636A**30	CNPH*3617A**	58CV(A,X)110−20	32,800	12.5	15.0
3630683	24ABC636A**30	CNPH*3617A**	58CV(A,X)135−22	32,800	12.5	15.0
3630734	24ABC636A**30	CNPH*3617A**	58CV(A,X)155−22	33,000	12.5	15.5
4137643	24ABC636A**30	CNPH*3617A**	58HDV040−−12	33,200	12.0	14.5
4137644	24ABC636A**30	CNPH*3617A**	58HDV060−−12	33,200	12.0	14.5
4137645	24ABC636A**30	CNPH*3617A**	58HDV080−−20	33,200	12.5	15.0
4137646	24ABC636A**30	CNPH*3617A**	58HDV100−−20	33,200	12.5	15.2
3630853	24ABC636A**30	CNPH*3617A**	58ME(B,C)040−12	33,000	12.5	15.0
3630919	24ABC636A**30	CNPH*3617A**	58ME(B,C)060−12	33,000	12.0	15.0
3630981	24ABC636A**30	CNPH*3617A**	58ME(B,C)080−12	33,000	12.5	15.0
3631028	24ABC636A**30	CNPH*3617A**	58ME(B,C)080−16	33,000	12.0	15.0
3631067	24ABC636A**30	CNPH*3617A**	58ME(B,C)100−20	32,800	12.5	15.5
3631183	24ABC636A**30	CNPH*3617A**	58MV(B,C)060−14	33,000	12.0	15.0
3631233	24ABC636A**30	CNPH*3617A**	58MV(B,C)080−14	32,800	12.0	14.5
3631284	24ABC636A**30	CNPH*3617A**	58MV(B,C)080−20	32,800	12.0	15.0
3631348	24ABC636A**30	CNPH*3617A**	58MV(B,C)100−20	33,000	12.0	15.0
3631400	24ABC636A**30	CNPH*3617A**	58MV(B,C)120−20	32,800	12.5	15.0
3631448	24ABC636A**30	CNPH*3617A**	58MVB040−14	32,600	12.0	14.5
3631497	24ABC636A**30	CNPH*3617A**	58PH*045−08	32,800	12.0	14.5
3631531	24ABC636A**30	CNPH*3617A**	58PH*070−16	32,800	12.0	14.5
3631571	24ABC636A**30	CNPH*3617A**	58PH*090−16	33,000	12.5	15.0
3631622	24ABC636A**30	CNPH*3617A**	58PH*110−20	33,000	12.5	15.5
3645021	24ABC636A**30	CNPH*3617A**	58VLR105−12	33,000	12.5	15.0
3645023	24ABC636A**30	CNPH*3617A**	58VLR120−20	32,800	12.5	15.5
3645020	24ABC636A**30	CNPH*3617A**	58VMR105−12	32,600	12.5	15.0
3645022	24ABC636A**30	CNPH*3617A**	58VMR120−20	32,800	12.5	15.0
4744821	24ABC636A**30	CNPH*3617A**	59*N*A060V17**14	32,800	12.5	15.0
4744822	24ABC636A**30	CNPH*3617A**	59*N*A080V17**14	33,000	12.5	15.2
4744823	24ABC636A**30	CNPH*3617A**	59*N*A100V21**20	33,000	12.5	15.2
4744824	24ABC636A**30	CNPH*3617A**	59*N*A120V24**22	33,000	12.7	15.5
4744825	24ABC636A**30	CNPH*3617A**	59*P5A060E17**14	33,200	12.5	15.0
4744826	24ABC636A**30	CNPH*3617A**	59*P5A080E17**16	33,000	12.5	15.2
4137689	24ABC636A**30	CNPH*3617A**	OVLAAB036098	33,000	12.0	14.5
4137691	24ABC636A**30	CNPH*3617A**	OVLAAB048112	33,400	12.0	14.5
4137692	24ABC636A**30	CNPH*3617A**	OVLAAB060154	34,000	12.5	15.2
4137688	24ABC636A**30	CNPH*3617A**	OVMAAB036098	33,000	12.0	14.5
4137690	24ABC636A**30	CNPH*3617A**	OVMAAB042112	33,200	12.5	15.2
3631837	24ABC636A**30	CNPH*3617A**+TDR		33,000	11.5	14.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3630507	24ABC636A**30	CNPH*4221A**	58CV(A,X)070−12	33,000	12.0	15.0
3630568	24ABC636A**30	CNPH*4221A**	58CV(A,X)090−16	33,200	12.5	15.5
3630625	24ABC636A**30	CNPH*4221A**	58CV(A,X)110−20	33,200	12.5	15.5
3630684	24ABC636A**30	CNPH*4221A**	58CV(A,X)135−22	33,200	12.5	15.5
3630735	24ABC636A**30	CNPH*4221A**	58CV(A,X)155−22	33,400	13.0	16.0
4137647	24ABC636A**30	CNPH*4221A**	58HDV040−−12	33,600	12.0	14.5
4137648	24ABC636A**30	CNPH*4221A**	58HDV060−−12	33,600	12.0	15.0
4137649	24ABC636A**30	CNPH*4221A**	58HDV080−−20	33,600	12.5	15.2
4137650	24ABC636A**30	CNPH*4221A**	58HDV100−−20	33,600	12.5	15.5
3630854	24ABC636A**30	CNPH*4221A**	58ME(B,C)040−12	33,400	12.5	15.5
3630920	24ABC636A**30	CNPH*4221A**	58ME(B,C)060−12	33,400	12.5	15.5
3630982	24ABC636A**30	CNPH*4221A**	58ME(B,C)080−12	33,400	12.5	15.5
3631029	24ABC636A**30	CNPH*4221A**	58ME(B,C)080−16	33,400	12.5	15.5
3631068	24ABC636A**30	CNPH*4221A**	58ME(B,C)100−20	33,200	13.0	16.0
3631184	24ABC636A**30	CNPH*4221A**	58MV(B,C)060−14	33,400	12.5	15.0
3631234	24ABC636A**30	CNPH*4221A**	58MV(B,C)080−14	33,200	12.5	15.0
3631285	24ABC636A**30	CNPH*4221A**	58MV(B,C)080−20	33,200	12.5	15.0
3631349	24ABC636A**30	CNPH*4221A**	58MV(B,C)100−20	33,200	12.5	15.5
3631401	24ABC636A**30	CNPH*4221A**	58MV(B,C)120−20	33,200	12.5	15.5
3631449	24ABC636A**30	CNPH*4221A**	58MVB040−14	33,000	12.0	15.0
3631498	24ABC636A**30	CNPH*4221A**	58PH*045−08	33,200	12.0	14.5
3631532	24ABC636A**30	CNPH*4221A**	58PH*070−16	33,200	12.0	15.0
3631572	24ABC636A**30	CNPH*4221A**	58PH*090−16	33,400	12.5	15.5
3631623	24ABC636A**30	CNPH*4221A**	58PH*110−20	33,600	13.0	16.0
3645025	24ABC636A**30	CNPH*4221A**	58VLR105−12	33,400	12.5	15.0
3645027	24ABC636A**30	CNPH*4221A**	58VLR120−20	33,200	13.0	15.5
3645024	24ABC636A**30	CNPH*4221A**	58VMR105−12	33,000	12.5	15.0
3645026	24ABC636A**30	CNPH*4221A**	58VMR120−20	33,000	12.5	15.5
4744827	24ABC636A**30	CNPH*4221A**	59*N*A060V17**14	33,200	12.5	15.2
4744828	24ABC636A**30	CNPH*4221A**	59*N*A080V17**14	33,200	12.7	15.5
4744829	24ABC636A**30	CNPH*4221A**	59*N*A100V21**20	33,400	12.7	15.5
4744830	24ABC636A**30	CNPH*4221A**	59*N*A120V24**22	33,400	12.7	15.5
4744831	24ABC636A**30	CNPH*4221A**	59*P5A060E17**14	33,600	12.5	15.2
4744832	24ABC636A**30	CNPH*4221A**	59*P5A080E17**16	33,400	12.7	15.5
4137694	24ABC636A**30	CNPH*4221A**	OVLAAB036098	33,400	12.0	15.0
4137696	24ABC636A**30	CNPH*4221A**	OVLAAB048112	33,800	12.5	15.2
4137697	24ABC636A**30	CNPH*4221A**	OVLAAB060154	34,400	12.5	15.5
4137693	24ABC636A**30	CNPH*4221A**	OVMAAB036098	33,400	12.0	15.0
4137695	24ABC636A**30	CNPH*4221A**	OVMAAB042112	33,600	12.5	15.2
3631838	24ABC636A**30	CNPH*4221A**+TDR		33,400	11.5	14.0
4137651	24ABC636A**30	CNPH*4321A**	58HDV040−−12	33,600	12.5	15.0
4137652	24ABC636A**30	CNPH*4321A**	58HDV060−−12	33,600	12.5	15.2
4137653	24ABC636A**30	CNPH*4321A**	58HDV080−−20	33,600	13.0	16.0
4137654	24ABC636A**30	CNPH*4321A**	58HDV100−−20	33,600	13.0	16.0
4744833	24ABC636A**30	CNPH*4321A**	59*N*A060V17**14	34,000	12.7	15.5
4744834	24ABC636A**30	CNPH*4321A**	59*N*A080V17**14	34,200	13.0	16.0
4744835	24ABC636A**30	CNPH*4321A**	59*N*A100V21**20	34,400	13.0	16.0
4744836	24ABC636A**30	CNPH*4321A**	59*N*A120V24**22	34,400	13.0	16.0
4744837	24ABC636A**30	CNPH*4321A**	59*P5A060E17**14	34,600	12.7	15.5
4744838	24ABC636A**30	CNPH*4321A**	59*P5A080E17**16	34,400	13.0	16.0
4137699	24ABC636A**30	CNPH*4321A**	OVLAAB036098	34,200	12.5	15.2
4137701	24ABC636A**30	CNPH*4321A**	OVLAAB048112	34,600	12.5	15.5
4137702	24ABC636A**30	CNPH*4321A**	OVLAAB060154	35,400	13.0	16.0
4137698	24ABC636A**30	CNPH*4321A**	OVMAAB036098	34,400	12.5	15.2
4137700	24ABC636A**30	CNPH*4321A**	OVMAAB042112	34,400	13.0	16.0
3630508	24ABC636A**30	CNPH*4821A**	58CV(A,X)070−12	33,600	12.5	15.5
3630569	24ABC636A**30	CNPH*4821A**	58CV(A,X)090−16	33,600	13.0	16.0
3630626	24ABC636A**30	CNPH*4821A**	58CV(A,X)110−20	33,800	13.0	16.0
3630685	24ABC636A**30	CNPH*4821A**	58CV(A,X)135−22	33,800	13.0	16.0
3630736	24ABC636A**30	CNPH*4821A**	58CV(A,X)155−22	33,800	13.0	16.0
3630855	24ABC636A**30	CNPH*4821A**	58ME(B,C)040−12	34,000	13.0	16.0
3630921	24ABC636A**30	CNPH*4821A**	58ME(B,C)060−12	34,200	13.0	16.0
3630983	24ABC636A**30	CNPH*4821A**	58ME(B,C)080−12	34,000	13.0	16.0
3631030	24ABC636A**30	CNPH*4821A**	58ME(B,C)080−16	34,200	13.0	16.0
3631069	24ABC636A**30	CNPH*4821A**	58ME(B,C)100−20	34,000	13.0	16.0
3631185	24ABC636A**30	CNPH*4821A**	58MV(B,C)060−14	33,800	13.0	16.0
3631235	24ABC636A**30	CNPH*4821A**	58MV(B,C)080−14	33,800	12.5	15.5
3631286	24ABC636A**30	CNPH*4821A**	58MV(B,C)080−20	33,600	13.0	16.0
3631350	24ABC636A**30	CNPH*4821A**	58MV(B,C)100−20	33,800	13.0	16.0
3631402	24ABC636A**30	CNPH*4821A**	58MV(B,C)120−20	33,800	13.0	16.0
3631450	24ABC636A**30	CNPH*4821A**	58MVB040−14	33,600	12.5	15.5
3631499	24ABC636A**30	CNPH*4821A**	58PH*045−08	33,800	12.0	15.0
3631533	24ABC636A**30	CNPH*4821A**	58PH*070−16	33,800	12.5	15.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3631573	24ABC636A**30	CNPH*4821A**	58PH*090−16	34,000	13.0	16.0
3631625	24ABC636A**30	CNPH*4821A**	58PH*110−20	34,200	13.0	16.0
3645029	24ABC636A**30	CNPH*4821A**	58VLR105−12	33,800	13.0	15.5
3645031	24ABC636A**30	CNPH*4821A**	58VLR120−20	33,800	13.0	16.0
3645028	24ABC636A**30	CNPH*4821A**	58VMR105−12	33,400	13.0	15.5
3645030	24ABC636A**30	CNPH*4821A**	58VMR120−20	33,600	13.0	16.0
3631839	24ABC636A**30	CNPH*4821A**+TDR		34,000	12.0	14.5
3630504	24ABC636A**30	CNPV*3617A**	58CV(A,X)070−12	32,800	12.0	15.0
3630562	24ABC636A**30	CNPV*3617A**	58CV(A,X)090−16	32,800	12.0	15.0
4137661	24ABC636A**30	CNPV*3617A**	58HDV040−−12	33,000	12.0	14.5
4137662	24ABC636A**30	CNPV*3617A**	58HDV060−−12	33,200	12.0	14.5
3630848	24ABC636A**30	CNPV*3617A**	58ME(B,C)040−12	33,000	12.0	15.0
3630914	24ABC636A**30	CNPV*3617A**	58ME(B,C)060−12	33,000	12.0	15.0
3630976	24ABC636A**30	CNPV*3617A**	58ME(B,C)080−12	33,000	12.0	15.0
3631023	24ABC636A**30	CNPV*3617A**	58ME(B,C)080−16	33,000	12.0	15.0
3631178	24ABC636A**30	CNPV*3617A**	58MV(B,C)060−14	33,000	12.0	15.0
3631495	24ABC636A**30	CNPV*3617A**	58PH*045−08	32,800	11.5	14.5
3631526	24ABC636A**30	CNPV*3617A**	58PH*070−16	32,800	12.0	14.5
3631968	24ABC636A**30	CNPV*3617A**	58UVB060−14	33,000	12.0	15.0
3645001	24ABC636A**30	CNPV*3617A**	58VLR105−12	33,000	12.0	15.0
3645000	24ABC636A**30	CNPV*3617A**	58VMR105−12	32,600	12.5	15.0
4744797	24ABC636A**30	CNPV*3617A**	59*N*A060V17**14	32,800	12.5	15.0
4744798	24ABC636A**30	CNPV*3617A**	59*N*A080V17**14	33,000	12.5	15.2
4744799	24ABC636A**30	CNPV*3617A**	59*P5A060E17**14	33,200	12.5	15.0
4744800	24ABC636A**30	CNPV*3617A**	59*P5A080E17**16	33,000	12.5	15.2
4137664	24ABC636A**30	CNPV*3617A**	OVLAAB036098	33,000	12.0	14.5
4137663	24ABC636A**30	CNPV*3617A**	OVMAAB036098	33,000	12.0	14.5
4137665	24ABC636A**30	CNPV*3617A**	OVMAAB042112	33,200	12.5	15.2
3631831	24ABC636A**30	CNPV*3617A**+TDR		33,000	11.5	14.0
3630563	24ABC636A**30	CNPV*3621A**	58CV(A,X)090−16	32,800	12.5	15.0
3630620	24ABC636A**30	CNPV*3621A**	58CV(A,X)110−20	33,000	12.5	15.0
4137655	24ABC636A**30	CNPV*3621A**	58HDV040−−12	33,200	12.0	14.5
4137656	24ABC636A**30	CNPV*3621A**	58HDV060−−12	33,200	12.0	14.5
4137666	24ABC636A**30	CNPV*3621A**	58HDV080−−20	33,800	12.5	15.0
3630849	24ABC636A**30	CNPV*3621A**	58ME(B,C)040−12	33,000	12.5	15.0
3630915	24ABC636A**30	CNPV*3621A**	58ME(B,C)060−12	33,000	12.0	15.0
3630977	24ABC636A**30	CNPV*3621A**	58ME(B,C)080−12	33,000	12.5	15.0
3631024	24ABC636A**30	CNPV*3621A**	58ME(B,C)080−16	33,000	12.0	15.0
3631063	24ABC636A**30	CNPV*3621A**	58ME(B,C)100−20	32,800	12.5	15.5
3631179	24ABC636A**30	CNPV*3621A**	58MV(B,C)060−14	33,000	12.0	15.0
3631229	24ABC636A**30	CNPV*3621A**	58MV(B,C)080−14	32,800	12.0	15.0
3631280	24ABC636A**30	CNPV*3621A**	58MV(B,C)080−20	32,800	12.0	15.0
3631344	24ABC636A**30	CNPV*3621A**	58MV(B,C)100−20	33,000	12.0	15.0
3631527	24ABC636A**30	CNPV*3621A**	58PH*070−16	32,800	12.0	14.5
3631567	24ABC636A**30	CNPV*3621A**	58PH*090−16	33,000	12.5	15.5
3631618	24ABC636A**30	CNPV*3621A**	58PH*110−20	33,200	12.5	15.5
3631969	24ABC636A**30	CNPV*3621A**	58UVB060−14	33,000	12.0	15.0
3632020	24ABC636A**30	CNPV*3621A**	58UVB080−14	32,800	12.0	15.0
3632071	24ABC636A**30	CNPV*3621A**	58UVB080−20	32,800	12.0	15.0
3632135	24ABC636A**30	CNPV*3621A**	58UVB100−20	33,000	12.0	15.0
3645003	24ABC636A**30	CNPV*3621A**	58VLR105−12	33,000	12.5	15.0
3645005	24ABC636A**30	CNPV*3621A**	58VLR120−20	32,800	12.5	15.5
3645002	24ABC636A**30	CNPV*3621A**	58VMR105−12	32,600	12.5	15.0
3645004	24ABC636A**30	CNPV*3621A**	58VMR120−20	32,800	12.5	15.0
4744801	24ABC636A**30	CNPV*3621A**	59*N*A060V17**14	32,800	12.5	15.0
4744802	24ABC636A**30	CNPV*3621A**	59*N*A080V17**14	33,000	12.5	15.2
4744803	24ABC636A**30	CNPV*3621A**	59*N*A100V21**20	33,000	12.5	15.2
4744804	24ABC636A**30	CNPV*3621A**	59*P5A060E17**14	33,200	12.5	15.0
4744805	24ABC636A**30	CNPV*3621A**	59*P5A080E17**16	33,000	12.5	15.2
4137668	24ABC636A**30	CNPV*3621A**	OVLAAB036098	33,000	12.0	14.5
4137670	24ABC636A**30	CNPV*3621A**	OVLAAB048112	33,400	12.0	15.0
4137667	24ABC636A**30	CNPV*3621A**	OVMAAB036098	33,200	12.0	14.5
4137669	24ABC636A**30	CNPV*3621A**	OVMAAB042112	33,200	12.5	15.2
3631832	24ABC636A**30	CNPV*3621A**+TDR		33,000	11.5	14.0
3630500	24ABC636A**30	CNPV*3717A**	58CV(A,X)070−12	34,000	12.5	15.5
3630556	24ABC636A**30	CNPV*3717A**	58CV(A,X)090−16	34,000	13.0	16.0
4137671	24ABC636A**30	CNPV*3717A**	58HDV040−−12	34,400	12.0	15.0
4137672	24ABC636A**30	CNPV*3717A**	58HDV060−−12	34,600	12.5	15.2
3630842	24ABC636A**30	CNPV*3717A**	58ME(B,C)040−12	34,400	13.0	16.0
3630908	24ABC636A**30	CNPV*3717A**	58ME(B,C)060−12	34,400	13.0	16.0
3630970	24ABC636A**30	CNPV*3717A**	58ME(B,C)080−12	34,200	13.0	16.0
3631017	24ABC636A**30	CNPV*3717A**	58ME(B,C)080−16	34,400	13.0	16.0
3631172	24ABC636A**30	CNPV*3717A**	58MV(B,C)060−14	34,200	13.0	16.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3631491	24ABC636A**30	CNPV*3717A**	58PH*045−08	34,000	12.0	15.0
3631520	24ABC636A**30	CNPV*3717A**	58PH*070−16	34,200	12.5	15.5
3631962	24ABC636A**30	CNPV*3717A**	58UVB060−14	34,200	13.0	16.0
3645007	24ABC636A**30	CNPV*3717A**	58VLR105−12	34,200	13.0	15.5
3645006	24ABC636A**30	CNPV*3717A**	58VMR105−12	33,800	13.0	15.5
4744806	24ABC636A**30	CNPV*3717A**	59*N*A060V17**14	34,000	12.7	15.5
4744807	24ABC636A**30	CNPV*3717A**	59*N*A080V17**14	34,200	13.0	16.0
4744808	24ABC636A**30	CNPV*3717A**	59*P5A060E17**14	34,400	12.7	15.5
4744809	24ABC636A**30	CNPV*3717A**	59*P5A080E17**16	34,400	13.0	16.0
4137674	24ABC636A**30	CNPV*3717A**	OVLAAB036098	34,200	12.5	15.2
4137673	24ABC636A**30	CNPV*3717A**	OVMAAB036098	34,400	12.5	15.2
4137675	24ABC636A**30	CNPV*3717A**	OVMAAB042112	34,400	13.0	16.0
3630505	24ABC636A**30	CNPV*4217A**	58CV(A,X)070−12	33,400	12.5	15.0
3630564	24ABC636A**30	CNPV*4217A**	58CV(A,X)090−16	33,400	12.5	15.5
4137676	24ABC636A**30	CNPV*4217A**	58HDV040−−12	33,600	12.0	14.5
4137677	24ABC636A**30	CNPV*4217A**	58HDV060−−12	34,000	12.0	15.0
3630850	24ABC636A**30	CNPV*4217A**	58ME(B,C)040−12	33,600	12.5	15.5
3630916	24ABC636A**30	CNPV*4217A**	58ME(B,C)060−12	33,800	12.5	15.5
3630978	24ABC636A**30	CNPV*4217A**	58ME(B,C)080−12	33,600	12.5	15.5
3631025	24ABC636A**30	CNPV*4217A**	58ME(B,C)080−16	33,800	12.5	15.5
3631180	24ABC636A**30	CNPV*4217A**	58MV(B,C)060−14	33,600	12.5	15.5
3631496	24ABC636A**30	CNPV*4217A**	58PH*045−08	33,400	11.5	14.5
3631528	24ABC636A**30	CNPV*4217A**	58PH*070−16	33,400	12.0	15.0
3631970	24ABC636A**30	CNPV*4217A**	58UVB060−14	33,600	12.5	15.5
3645009	24ABC636A**30	CNPV*4217A**	58VLR105−12	33,600	12.5	15.0
3645008	24ABC636A**30	CNPV*4217A**	58VMR105−12	33,200	12.5	15.0
4744810	24ABC636A**30	CNPV*4217A**	59*N*A060V17**14	33,400	12.5	15.2
4744811	24ABC636A**30	CNPV*4217A**	59*N*A080V17**14	33,600	12.7	15.5
4744812	24ABC636A**30	CNPV*4217A**	59*P5A060E17**14	33,800	12.5	15.2
4744813	24ABC636A**30	CNPV*4217A**	59*P5A080E17**16	33,600	12.7	15.5
4137679	24ABC636A**30	CNPV*4217A**	OVLAAB036098	33,600	12.5	15.0
4137678	24ABC636A**30	CNPV*4217A**	OVMAAB036098	33,800	12.5	15.0
4137680	24ABC636A**30	CNPV*4217A**	OVMAAB042112	33,800	12.5	15.2
3631833	24ABC636A**30	CNPV*4217A**+TDR		33,800	11.5	14.0
3630565	24ABC636A**30	CNPV*4221A**	58CV(A,X)090−16	33,200	12.5	15.5
3630621	24ABC636A**30	CNPV*4221A**	58CV(A,X)110−20	33,200	12.5	15.5
4137657	24ABC636A**30	CNPV*4221A**	58HDV040−−12	33,600	12.0	14.5
4137658	24ABC636A**30	CNPV*4221A**	58HDV060−−12	33,800	12.0	15.0
4137681	24ABC636A**30	CNPV*4221A**	58HDV080−−20	34,200	12.5	15.2
3630851	24ABC636A**30	CNPV*4221A**	58ME(B,C)040−12	33,400	12.5	15.5
3630917	24ABC636A**30	CNPV*4221A**	58ME(B,C)060−12	33,400	12.5	15.5
3630979	24ABC636A**30	CNPV*4221A**	58ME(B,C)080−12	33,400	12.5	15.5
3631026	24ABC636A**30	CNPV*4221A**	58ME(B,C)080−16	33,400	12.5	15.5
3631064	24ABC636A**30	CNPV*4221A**	58ME(B,C)100−20	33,200	13.0	16.0
3631181	24ABC636A**30	CNPV*4221A**	58MV(B,C)060−14	33,400	12.5	15.0
3631230	24ABC636A**30	CNPV*4221A**	58MV(B,C)080−14	33,200	12.0	15.0
3631281	24ABC636A**30	CNPV*4221A**	58MV(B,C)080−20	33,200	12.5	15.0
3631345	24ABC636A**30	CNPV*4221A**	58MV(B,C)100−20	33,200	12.5	15.5
3631529	24ABC636A**30	CNPV*4221A**	58PH*070−16	33,200	12.0	14.5
3631568	24ABC636A**30	CNPV*4221A**	58PH*090−16	33,400	12.5	15.5
3631619	24ABC636A**30	CNPV*4221A**	58PH*110−20	33,600	13.0	16.0
3631971	24ABC636A**30	CNPV*4221A**	58UVB060−14	33,400	12.5	15.0
3632021	24ABC636A**30	CNPV*4221A**	58UVB080−14	33,200	12.0	15.0
3632072	24ABC636A**30	CNPV*4221A**	58UVB080−20	33,200	12.5	15.0
3632136	24ABC636A**30	CNPV*4221A**	58UVB100−20	33,200	12.5	15.5
3645011	24ABC636A**30	CNPV*4221A**	58VLR105−12	33,400	12.5	15.0
3645013	24ABC636A**30	CNPV*4221A**	58VLR120−20	33,200	13.0	15.5
3645010	24ABC636A**30	CNPV*4221A**	58VMR105−12	33,000	12.5	15.0
3645012	24ABC636A**30	CNPV*4221A**	58VMR120−20	33,000	12.5	15.5
4744814	24ABC636A**30	CNPV*4221A**	59*N*A060V17**14	33,200	12.5	15.2
4744815	24ABC636A**30	CNPV*4221A**	59*N*A080V17**14	33,200	12.7	15.5
4744816	24ABC636A**30	CNPV*4221A**	59*N*A100V21**20	33,400	12.7	15.5
4744817	24ABC636A**30	CNPV*4221A**	59*P5A060E17**14	33,600	12.5	15.2
4744818	24ABC636A**30	CNPV*4221A**	59*P5A080E17**16	33,400	12.7	15.5
4137683	24ABC636A**30	CNPV*4221A**	OVLAAB036098	33,400	12.0	15.0
4137685	24ABC636A**30	CNPV*4221A**	OVLAAB048112	33,800	12.5	15.2
4137682	24ABC636A**30	CNPV*4221A**	OVMAAB036098	33,400	12.0	15.0
4137684	24ABC636A**30	CNPV*4221A**	OVMAAB042112	33,600	12.5	15.2
3631834	24ABC636A**30	CNPV*4221A**+TDR		33,400	11.5	14.0
4137659	24ABC636A**30	CNPV*4324A**	58HDV080−−20	34,600	13.0	16.0
4137660	24ABC636A**30	CNPV*4324A**	58HDV100−−20	34,600	13.0	16.0
4744819	24ABC636A**30	CNPV*4324A**	59*N*A100V21**20	34,400	13.0	16.0
4744820	24ABC636A**30	CNPV*4324A**	59*N*A120V24**22	34,400	13.2	16.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
4137686	24ABC636A**30	CNPV*4324A**	OVLAAB048112	34,600	13.0	16.0
4137687	24ABC636A**30	CNPV*4324A**	OVLAAB060154	34,600	13.0	16.0
4219416	24ABC636A**30	CNPV*4324A**+TDR		34,400	12.0	14.5
3630566	24ABC636A**30	CNPV*4821A**	58CV(A,X)090−16	33,600	13.0	16.0
3630622	24ABC636A**30	CNPV*4821A**	58CV(A,X)110−20	33,800	13.0	16.0
3630852	24ABC636A**30	CNPV*4821A**	58ME(B,C)040−12	34,000	13.0	16.0
3630918	24ABC636A**30	CNPV*4821A**	58ME(B,C)060−12	34,200	13.0	16.0
3630980	24ABC636A**30	CNPV*4821A**	58ME(B,C)080−12	34,000	13.0	16.0
3631027	24ABC636A**30	CNPV*4821A**	58ME(B,C)080−16	34,200	13.0	16.0
3631065	24ABC636A**30	CNPV*4821A**	58ME(B,C)100−20	34,000	13.0	16.0
3631182	24ABC636A**30	CNPV*4821A**	58MV(B,C)060−14	33,800	13.0	16.0
3631231	24ABC636A**30	CNPV*4821A**	58MV(B,C)080−14	33,800	12.5	15.5
3631282	24ABC636A**30	CNPV*4821A**	58MV(B,C)080−20	33,600	13.0	16.0
3631346	24ABC636A**30	CNPV*4821A**	58MV(B,C)100−20	33,800	13.0	16.0
3631530	24ABC636A**30	CNPV*4821A**	58PH*070−16	33,800	12.5	15.0
3631569	24ABC636A**30	CNPV*4821A**	58PH*090−16	34,000	13.0	16.0
3631620	24ABC636A**30	CNPV*4821A**	58PH*110−20	34,200	13.0	16.0
3631972	24ABC636A**30	CNPV*4821A**	58UVB060−14	33,800	13.0	16.0
3632022	24ABC636A**30	CNPV*4821A**	58UVB080−14	33,800	12.5	15.5
3632073	24ABC636A**30	CNPV*4821A**	58UVB080−20	33,600	13.0	16.0
3632137	24ABC636A**30	CNPV*4821A**	58UVB100−20	33,800	13.0	16.0
3645015	24ABC636A**30	CNPV*4821A**	58VLR105−12	33,800	13.0	15.5
3645017	24ABC636A**30	CNPV*4821A**	58VLR120−20	33,800	13.0	16.0
3645014	24ABC636A**30	CNPV*4821A**	58VMR105−12	33,400	13.0	15.5
3645016	24ABC636A**30	CNPV*4821A**	58VMR120−20	33,600	13.0	16.0
3631835	24ABC636A**30	CNPV*4821A**+TDR		34,000	11.5	14.0
3630623	24ABC636A**30	CNPV*4824A**	58CV(A,X)110−20	33,800	13.0	16.0
3630682	24ABC636A**30	CNPV*4824A**	58CV(A,X)135−22	33,800	13.0	16.0
3630733	24ABC636A**30	CNPV*4824A**	58CV(A,X)155−22	33,800	13.0	16.0
3631066	24ABC636A**30	CNPV*4824A**	58ME(B,C)100−20	34,000	13.0	16.0
3631232	24ABC636A**30	CNPV*4824A**	58MV(B,C)080−14	33,800	12.5	15.5
3631283	24ABC636A**30	CNPV*4824A**	58MV(B,C)080−20	33,600	13.0	16.0
3631347	24ABC636A**30	CNPV*4824A**	58MV(B,C)100−20	33,800	13.0	16.0
3631399	24ABC636A**30	CNPV*4824A**	58MV(B,C)120−20	33,800	13.0	16.0
3631447	24ABC636A**30	CNPV*4824A**	58MVB040−14	33,600	12.5	15.5
3631570	24ABC636A**30	CNPV*4824A**	58PH*090−16	34,000	13.0	16.0
3631621	24ABC636A**30	CNPV*4824A**	58PH*110−20	34,200	13.0	16.0
3632023	24ABC636A**30	CNPV*4824A**	58UVB080−14	33,800	12.5	15.5
3632074	24ABC636A**30	CNPV*4824A**	58UVB080−20	33,600	13.0	16.0
3632138	24ABC636A**30	CNPV*4824A**	58UVB100−20	33,800	13.0	16.0
3632190	24ABC636A**30	CNPV*4824A**	58UVB120−20	33,800	13.0	16.0
3645019	24ABC636A**30	CNPV*4824A**	58VLR120−20	33,800	13.0	16.0
3645018	24ABC636A**30	CNPV*4824A**	58VMR120−20	33,600	13.0	16.0
3631836	24ABC636A**30	CNPV*4824A**+TDR		34,000	11.5	14.0
3630509	24ABC636A**30	CSPH*3612A**	58CV(A,X)070−12	33,400	12.5	15.5
3630570	24ABC636A**30	CSPH*3612A**	58CV(A,X)090−16	33,600	13.0	16.0
3630627	24ABC636A**30	CSPH*3612A**	58CV(A,X)110−20	33,600	13.0	16.0
3630686	24ABC636A**30	CSPH*3612A**	58CV(A,X)135−22	33,600	13.0	16.0
3630737	24ABC636A**30	CSPH*3612A**	58CV(A,X)155−22	33,800	13.0	16.0
3630775	24ABC636A**30	CSPH*3612A**	58HDV040−−12	33,400	12.0	14.5
3630785	24ABC636A**30	CSPH*3612A**	58HDV060−−12	33,800	12.0	15.0
3630788	24ABC636A**30	CSPH*3612A**	58HDV080−−20	34,200	12.5	15.0
3630798	24ABC636A**30	CSPH*3612A**	58HDV100−−20	34,000	12.5	15.5
3630856	24ABC636A**30	CSPH*3612A**	58ME(B,C)040−12	33,800	13.0	16.0
3630922	24ABC636A**30	CSPH*3612A**	58ME(B,C)060−12	33,800	12.5	15.5
3630984	24ABC636A**30	CSPH*3612A**	58ME(B,C)080−12	33,800	13.0	16.0
3631031	24ABC636A**30	CSPH*3612A**	58ME(B,C)080−16	33,800	12.5	15.5
3631070	24ABC636A**30	CSPH*3612A**	58ME(B,C)100−20	33,800	13.0	16.0
3631186	24ABC636A**30	CSPH*3612A**	58MV(B,C)060−14	33,800	12.5	15.5
3631236	24ABC636A**30	CSPH*3612A**	58MV(B,C)080−14	33,600	12.5	15.0
3631287	24ABC636A**30	CSPH*3612A**	58MV(B,C)080−20	33,600	12.5	15.5
3631351	24ABC636A**30	CSPH*3612A**	58MV(B,C)100−20	33,800	12.5	15.5
3631403	24ABC636A**30	CSPH*3612A**	58MV(B,C)120−20	33,600	13.0	16.0
3631451	24ABC636A**30	CSPH*3612A**	58MVB040−14	33,400	12.5	15.0
3631500	24ABC636A**30	CSPH*3612A**	58PH*045−08	33,600	12.0	14.5
3631534	24ABC636A**30	CSPH*3612A**	58PH*070−16	33,600	12.0	15.0
3631574	24ABC636A**30	CSPH*3612A**	58PH*090−16	33,800	13.0	16.0
3631626	24ABC636A**30	CSPH*3612A**	58PH*110−20	34,000	13.0	16.0
3645033	24ABC636A**30	CSPH*3612A**	58VLR105−12	33,800	12.5	15.5
3645035	24ABC636A**30	CSPH*3612A**	58VLR120−20	33,600	13.0	16.0
3645032	24ABC636A**30	CSPH*3612A**	58VMR105−12	33,400	12.5	15.5
3645034	24ABC636A**30	CSPH*3612A**	58VMR120−20	33,600	13.0	15.5
4744839	24ABC636A**30	CSPH*3612A**	59*N*A060V17**14	33,600	12.7	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
4744840	24ABC636A**30	CSPH*3612A**	59*N*A080V17**14	33,600	12.7	15.5
4744841	24ABC636A**30	CSPH*3612A**	59*N*A100V21**20	33,800	12.7	15.5
4744842	24ABC636A**30	CSPH*3612A**	59*N*A120V24**22	33,800	13.0	16.0
4744843	24ABC636A**30	CSPH*3612A**	59*P5A060E17**14	34,000	12.7	15.5
4744844	24ABC636A**30	CSPH*3612A**	59*P5A080E17**16	33,800	12.7	15.5
4137704	24ABC636A**30	CSPH*3612A**	OVLAAB036098	33,800	12.5	15.2
4137706	24ABC636A**30	CSPH*3612A**	OVLAAB048112	34,200	12.5	15.2
4137707	24ABC636A**30	CSPH*3612A**	OVLAAB060154	34,600	12.5	15.5
4137703	24ABC636A**30	CSPH*3612A**	OVMAAB036098	33,800	12.5	15.2
4137705	24ABC636A**30	CSPH*3612A**	OVMAAB042112	34,000	12.5	15.5
3631842	24ABC636A**30	CSPH*3612A**+TDR		33,800	11.5	14.0
3630510	24ABC636A**30	CSPH*4212A**	58CV(A,X)070−12	33,600	12.5	15.5
3630571	24ABC636A**30	CSPH*4212A**	58CV(A,X)090−16	33,800	13.0	16.0
3630628	24ABC636A**30	CSPH*4212A**	58CV(A,X)110−20	33,800	13.0	16.0
3630687	24ABC636A**30	CSPH*4212A**	58CV(A,X)135−22	33,800	13.0	16.0
3630738	24ABC636A**30	CSPH*4212A**	58CV(A,X)155−22	34,000	13.0	16.0
3630776	24ABC636A**30	CSPH*4212A**	58HDV040−−12	33,600	12.0	14.5
3630786	24ABC636A**30	CSPH*4212A**	58HDV060−−12	34,000	12.0	15.0
3630789	24ABC636A**30	CSPH*4212A**	58HDV080−−20	34,400	12.5	15.0
3630799	24ABC636A**30	CSPH*4212A**	58HDV100−−20	34,200	13.0	16.0
3630857	24ABC636A**30	CSPH*4212A**	58ME(B,C)040−12	34,000	13.0	16.0
3630923	24ABC636A**30	CSPH*4212A**	58ME(B,C)060−12	34,200	13.0	16.0
3630985	24ABC636A**30	CSPH*4212A**	58ME(B,C)080−12	34,000	13.0	16.0
3631032	24ABC636A**30	CSPH*4212A**	58ME(B,C)080−16	34,200	13.0	16.0
3631071	24ABC636A**30	CSPH*4212A**	58ME(B,C)100−20	34,000	13.0	16.0
3631187	24ABC636A**30	CSPH*4212A**	58MV(B,C)060−14	34,000	13.0	16.0
3631237	24ABC636A**30	CSPH*4212A**	58MV(B,C)080−14	33,800	12.5	15.5
3631288	24ABC636A**30	CSPH*4212A**	58MV(B,C)080−20	33,800	13.0	16.0
3631352	24ABC636A**30	CSPH*4212A**	58MV(B,C)100−20	33,800	13.0	16.0
3631404	24ABC636A**30	CSPH*4212A**	58MV(B,C)120−20	33,800	13.0	16.0
3631452	24ABC636A**30	CSPH*4212A**	58MVB040−14	33,600	12.5	15.5
3631501	24ABC636A**30	CSPH*4212A**	58PH*045−08	33,800	12.0	15.0
3631535	24ABC636A**30	CSPH*4212A**	58PH*070−16	33,800	12.5	15.0
3631575	24ABC636A**30	CSPH*4212A**	58PH*090−16	34,000	13.0	16.0
3631627	24ABC636A**30	CSPH*4212A**	58PH*110−20	34,200	13.0	16.0
3645037	24ABC636A**30	CSPH*4212A**	58VLR105−12	34,000	13.0	15.5
3645039	24ABC636A**30	CSPH*4212A**	58VLR120−20	33,800	13.0	16.0
3645036	24ABC636A**30	CSPH*4212A**	58VMR105−12	33,600	13.0	15.5
3645038	24ABC636A**30	CSPH*4212A**	58VMR120−20	33,600	13.0	15.5
4744845	24ABC636A**30	CSPH*4212A**	59*N*A060V17**14	33,800	12.7	15.5
4744846	24ABC636A**30	CSPH*4212A**	59*N*A080V17**14	33,800	12.7	15.5
4744847	24ABC636A**30	CSPH*4212A**	59*N*A100V21**20	34,000	13.0	16.0
4744848	24ABC636A**30	CSPH*4212A**	59*N*A120V24**22	34,000	13.0	16.0
4744849	24ABC636A**30	CSPH*4212A**	59*P5A060E17**14	34,200	12.7	15.5
4744850	24ABC636A**30	CSPH*4212A**	59*P5A080E17**16	34,000	12.7	15.5
4137709	24ABC636A**30	CSPH*4212A**	OVLAAB036098	34,000	12.5	15.2
4137711	24ABC636A**30	CSPH*4212A**	OVLAAB048112	34,400	12.5	15.5
4137712	24ABC636A**30	CSPH*4212A**	OVLAAB060154	34,600	13.0	16.0
4137708	24ABC636A**30	CSPH*4212A**	OVMAAB036098	34,000	12.5	15.2
4137710	24ABC636A**30	CSPH*4212A**	OVMAAB042112	34,200	12.5	15.5
3631843	24ABC636A**30	CSPH*4212A**+TDR		34,000	11.5	14.0
3630511	24ABC636A**30	CSPH*4812A**	58CV(A,X)070−12	33,800	12.5	15.5
3630572	24ABC636A**30	CSPH*4812A**	58CV(A,X)090−16	33,800	13.0	16.0
3630629	24ABC636A**30	CSPH*4812A**	58CV(A,X)110−20	34,000	13.0	16.0
3630688	24ABC636A**30	CSPH*4812A**	58CV(A,X)135−22	34,000	13.0	16.0
3630739	24ABC636A**30	CSPH*4812A**	58CV(A,X)155−22	34,000	13.0	16.0
3630858	24ABC636A**30	CSPH*4812A**	58ME(B,C)040−12	34,200	13.0	16.0
3630924	24ABC636A**30	CSPH*4812A**	58ME(B,C)060−12	34,200	13.0	16.0
3630986	24ABC636A**30	CSPH*4812A**	58ME(B,C)080−12	34,200	13.0	16.0
3631033	24ABC636A**30	CSPH*4812A**	58ME(B,C)080−16	34,200	13.0	16.0
3631072	24ABC636A**30	CSPH*4812A**	58ME(B,C)100−20	34,000	13.0	16.0
3631188	24ABC636A**30	CSPH*4812A**	58MV(B,C)060−14	34,000	13.0	16.0
3631238	24ABC636A**30	CSPH*4812A**	58MV(B,C)080−14	34,000	12.5	15.5
3631289	24ABC636A**30	CSPH*4812A**	58MV(B,C)080−20	33,800	13.0	16.0
3631353	24ABC636A**30	CSPH*4812A**	58MV(B,C)100−20	34,000	13.0	16.0
3631405	24ABC636A**30	CSPH*4812A**	58MV(B,C)120−20	34,000	13.0	16.0
3631453	24ABC636A**30	CSPH*4812A**	58MVB040−14	33,800	12.5	15.5
3631502	24ABC636A**30	CSPH*4812A**	58PH*045−08	34,000	12.0	15.0
3631536	24ABC636A**30	CSPH*4812A**	58PH*070−16	34,000	12.5	15.0
3631576	24ABC636A**30	CSPH*4812A**	58PH*090−16	34,200	13.0	16.0
3631628	24ABC636A**30	CSPH*4812A**	58PH*110−20	34,400	13.0	16.0
3645041	24ABC636A**30	CSPH*4812A**	58VLR105−12	34,000	13.0	15.5
3645043	24ABC636A**30	CSPH*4812A**	58VLR120−20	34,000	13.0	16.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3645040	24ABC636A**30	CSPH*4812A**	58VMR105−12	33,600	13.0	15.5
3645042	24ABC636A**30	CSPH*4812A**	58VMR120−20	33,800	13.0	16.0
3631844	24ABC636A**30	CSPH*4812A**+TDR		34,200	11.5	14.0
3804404	24ABC636A**30	FB4CNF036		33,000	11.5	13.5
3693282	24ABC636A**30	FB4CNF036+TXV		33,000	12.0	14.5
3804405	24ABC636A**30	FB4CNF042		34,200	12.0	14.5
3693283	24ABC636A**30	FB4CNF042+TXV		34,200	12.5	15.5
3631710	24ABC636A**30	FE4AN(B,F)003+UI		33,200	13.0	16.0
3631713	24ABC636A**30	FE4AN(B,F)005+UI		34,200	13.0	16.0
3631716	24ABC636A**30	FE4ANB006+UI		34,600	13.5	16.5
3631723	24ABC636A**30	FE4ANF002+UI		33,000	12.0	15.0
3631748	24ABC636A**30	FE5ANB004+UI		34,600	13.5	16.5
3631762	24ABC636A**30	FF1ENP036		33,000	11.0	13.5
3631765	24ABC636A**30	FF1ENP037		33,200	11.5	14.0
3631806	24ABC636A**30	FV4CN(B,F)003		33,200	13.0	16.0
3631809	24ABC636A**30	FV4CN(B,F)005		34,200	13.0	16.0
3631812	24ABC636A**30	FV4CNB006		34,600	13.5	16.5
3631819	24ABC636A**30	FV4CNF002		33,000	12.0	15.0
3632301	24ABC636A**30	FX4DN(B,F)037		34,200	13.0	15.5
3632302	24ABC636A**30	FX4DN(B,F)043		34,200	13.0	15.5
3632304	24ABC636A**30	FX4DN(B,F)049		34,800	13.0	16.0
3804406	24ABC636A**30	FY5BNF036		33,200	11.5	13.5
3693295	24ABC636A**30	FY5BNF036+TXV		33,400	11.5	14.0
3804407	24ABC636A**30	FY5BNF042		33,800	11.5	13.5
3693296	24ABC636A**30	FY5BNF042+TXV		33,800	12.0	14.5
3632309	24ABC642A**30	†CNPV*4324A**+TDR		41,500	12.0	14.5
3630573	24ABC642A**30	CAP**4221A**	58CV(A,X)090−16	39,500	13.0	15.2
3630630	24ABC642A**30	CAP**4221A**	58CV(A,X)110−20	40,000	13.0	15.2
3630859	24ABC642A**30	CAP**4221A**	58ME(B,C)040−12	40,000	12.5	15.0
3630925	24ABC642A**30	CAP**4221A**	58ME(B,C)060−12	40,000	12.5	15.0
3630987	24ABC642A**30	CAP**4221A**	58ME(B,C)080−12	40,000	12.5	15.0
3631034	24ABC642A**30	CAP**4221A**	58ME(B,C)080−16	40,000	12.5	15.0
3631073	24ABC642A**30	CAP**4221A**	58ME(B,C)100−20	40,000	13.0	15.5
3631189	24ABC642A**30	CAP**4221A**	58MV(B,C)060−14	40,000	12.5	15.0
3631239	24ABC642A**30	CAP**4221A**	58MV(B,C)080−14	39,500	12.5	14.5
3631290	24ABC642A**30	CAP**4221A**	58MV(B,C)080−20	39,500	12.5	15.0
3631354	24ABC642A**30	CAP**4221A**	58MV(B,C)100−20	39,500	12.5	15.0
3631537	24ABC642A**30	CAP**4221A**	58PH*070−16	39,500	12.0	14.5
3631577	24ABC642A**30	CAP**4221A**	58PH*090−16	40,000	13.0	15.2
3631629	24ABC642A**30	CAP**4221A**	58PH*110−20	40,000	13.0	15.5
3631979	24ABC642A**30	CAP**4221A**	58UVB060−14	40,000	12.5	15.0
3632030	24ABC642A**30	CAP**4221A**	58UVB080−14	39,500	12.5	14.5
3632081	24ABC642A**30	CAP**4221A**	58UVB080−20	39,500	12.5	15.0
3632145	24ABC642A**30	CAP**4221A**	58UVB100−20	39,500	12.5	15.0
3645045	24ABC642A**30	CAP**4221A**	58VLR120−20	39,500	13.0	15.5
3645044	24ABC642A**30	CAP**4221A**	58VMR120−20	39,500	12.5	15.0
4744851	24ABC642A**30	CAP**4221A**	59*N*A060V17**14	39,000	12.5	15.0
4744852	24ABC642A**30	CAP**4221A**	59*N*A080V17**14	39,500	12.5	15.2
4744853	24ABC642A**30	CAP**4221A**	59*N*A100V21**20	39,500	12.7	15.5
4744854	24ABC642A**30	CAP**4221A**	59*P5A060E17**14	39,500	12.0	14.5
4744855	24ABC642A**30	CAP**4221A**	59*P5A080E17**16	40,000	12.5	15.0
4744856	24ABC642A**30	CAP**4221A**	59*P5A100E21**16	39,500	12.5	15.2
4137713	24ABC642A**30	CAP**4221A**	OVLAAB048112	40,000	12.0	14.5
3631862	24ABC642A**30	CAP**4221A**+TDR		40,000	11.5	14.0
3630631	24ABC642A**30	CAP**4224A**	58CV(A,X)110−20	40,000	13.0	15.5
3630689	24ABC642A**30	CAP**4224A**	58CV(A,X)135−22	40,000	13.0	15.5
3630740	24ABC642A**30	CAP**4224A**	58CV(A,X)155−22	40,000	13.0	16.0
3631074	24ABC642A**30	CAP**4224A**	58ME(B,C)100−20	40,000	13.0	15.5
3631109	24ABC642A**30	CAP**4224A**	58ME(B,C)120−20	40,000	13.0	15.5
3631240	24ABC642A**30	CAP**4224A**	58MV(B,C)080−14	39,500	12.5	15.0
3631291	24ABC642A**30	CAP**4224A**	58MV(B,C)080−20	39,500	12.5	15.0
3631355	24ABC642A**30	CAP**4224A**	58MV(B,C)100−20	39,500	12.5	15.0
3631406	24ABC642A**30	CAP**4224A**	58MV(B,C)120−20	39,500	13.0	15.2
3631454	24ABC642A**30	CAP**4224A**	58MVB040−14	39,500	12.5	15.0
3631578	24ABC642A**30	CAP**4224A**	58PH*090−16	40,000	13.0	15.5
3631630	24ABC642A**30	CAP**4224A**	58PH*110−20	40,000	13.0	15.5
3631665	24ABC642A**30	CAP**4224A**	58PH*135−20	40,000	13.0	15.5
3632031	24ABC642A**30	CAP**4224A**	58UVB080−14	39,500	12.5	15.0
3632082	24ABC642A**30	CAP**4224A**	58UVB080−20	39,500	12.5	15.0
3632146	24ABC642A**30	CAP**4224A**	58UVB100−20	39,500	12.5	15.0
3632197	24ABC642A**30	CAP**4224A**	58UVB120−20	39,500	13.0	15.2
3645047	24ABC642A**30	CAP**4224A**	58VLR120−20	39,500	13.0	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3645046	24ABC642A**30	CAP**4224A**	58VMR120−20	39,500	12.5	15.0
4744857	24ABC642A**30	CAP**4224A**	59*N*A100V21**20	39,500	12.7	15.5
4744858	24ABC642A**30	CAP**4224A**	59*N*A120V24**22	39,500	12.7	15.5
4744859	24ABC642A**30	CAP**4224A**	59*P5A100E21**16	39,500	12.5	15.2
4744860	24ABC642A**30	CAP**4224A**	59*P5A120E24**22	40,000	12.7	15.5
3631863	24ABC642A**30	CAP**4224A**+TDR		40,000	11.5	14.0
3630512	24ABC642A**30	CAP**4817A**	58CV(A,X)070−12	40,500	12.5	15.0
3630574	24ABC642A**30	CAP**4817A**	58CV(A,X)090−16	40,500	13.0	15.5
3630860	24ABC642A**30	CAP**4817A**	58ME(B,C)040−12	41,000	13.0	15.2
3630926	24ABC642A**30	CAP**4817A**	58ME(B,C)060−12	41,000	13.0	15.2
3630988	24ABC642A**30	CAP**4817A**	58ME(B,C)080−12	41,000	13.0	15.5
3631035	24ABC642A**30	CAP**4817A**	58ME(B,C)080−16	40,500	13.0	15.5
3631190	24ABC642A**30	CAP**4817A**	58MV(B,C)060−14	41,000	13.0	15.2
3631538	24ABC642A**30	CAP**4817A**	58PH*070−16	40,500	12.0	14.5
3631980	24ABC642A**30	CAP**4817A**	58UVB060−14	41,000	13.0	15.2
4744861	24ABC642A**30	CAP**4817A**	59*N*A060V17**14	40,000	12.5	15.2
4744862	24ABC642A**30	CAP**4817A**	59*N*A080V17**14	40,000	12.7	15.5
4744863	24ABC642A**30	CAP**4817A**	59*P5A060E17**14	40,500	12.5	15.2
4744864	24ABC642A**30	CAP**4817A**	59*P5A080E17**16	40,500	12.5	15.2
4137714	24ABC642A**30	CAP**4817A**	OVMAAB042112	40,500	12.5	15.0
3631864	24ABC642A**30	CAP**4817A**+TDR		41,000	12.0	14.0
3630575	24ABC642A**30	CAP**4821A**	58CV(A,X)090−16	40,500	13.0	15.5
3630632	24ABC642A**30	CAP**4821A**	58CV(A,X)110−20	40,500	13.0	15.5
3630861	24ABC642A**30	CAP**4821A**	58ME(B,C)040−12	40,500	12.5	15.2
3630927	24ABC642A**30	CAP**4821A**	58ME(B,C)060−12	40,500	12.5	15.0
3630989	24ABC642A**30	CAP**4821A**	58ME(B,C)080−12	40,500	12.5	15.2
3631036	24ABC642A**30	CAP**4821A**	58ME(B,C)080−16	40,500	12.5	15.0
3631075	24ABC642A**30	CAP**4821A**	58ME(B,C)100−20	40,500	13.0	15.5
3631191	24ABC642A**30	CAP**4821A**	58MV(B,C)060−14	40,500	12.5	15.0
3631241	24ABC642A**30	CAP**4821A**	58MV(B,C)080−14	40,000	12.5	15.0
3631292	24ABC642A**30	CAP**4821A**	58MV(B,C)080−20	40,500	12.5	15.0
3631356	24ABC642A**30	CAP**4821A**	58MV(B,C)100−20	40,000	12.5	15.0
3631539	24ABC642A**30	CAP**4821A**	58PH*070−16	40,500	12.0	14.5
3631579	24ABC642A**30	CAP**4821A**	58PH*090−16	40,500	13.0	15.5
3631631	24ABC642A**30	CAP**4821A**	58PH*110−20	40,500	13.0	16.0
3631981	24ABC642A**30	CAP**4821A**	58UVB060−14	40,500	12.5	15.0
3632032	24ABC642A**30	CAP**4821A**	58UVB080−14	40,000	12.5	15.0
3632083	24ABC642A**30	CAP**4821A**	58UVB080−20	40,500	12.5	15.0
3632147	24ABC642A**30	CAP**4821A**	58UVB100−20	40,000	12.5	15.0
3645049	24ABC642A**30	CAP**4821A**	58VLR120−20	40,500	13.0	15.5
3645048	24ABC642A**30	CAP**4821A**	58VMR120−20	40,000	13.0	15.5
4744865	24ABC642A**30	CAP**4821A**	59*N*A060V17**14	40,000	12.5	15.0
4744866	24ABC642A**30	CAP**4821A**	59*N*A080V17**14	40,000	12.5	15.2
4744867	24ABC642A**30	CAP**4821A**	59*N*A100V21**20	40,000	12.7	15.5
4744868	24ABC642A**30	CAP**4821A**	59*P5A060E17**14	40,000	12.5	15.0
4744869	24ABC642A**30	CAP**4821A**	59*P5A080E17**16	40,500	12.5	15.2
4744870	24ABC642A**30	CAP**4821A**	59*P5A100E21**16	40,000	12.7	15.5
4137715	24ABC642A**30	CAP**4821A**	OVLAAB048112	40,500	12.5	14.5
3631865	24ABC642A**30	CAP**4821A**+TDR		40,500	12.0	14.0
3630790	24ABC642A**30	CAP**4823A**	58HDV080−−20	40,500	12.5	15.0
4744875	24ABC642A**30	CAP**4823A**	59*N*A100V21**20	40,000	12.7	15.5
4744876	24ABC642A**30	CAP**4823A**	59*N*A120V24**22	40,000	12.7	15.5
4744877	24ABC642A**30	CAP**4823A**	59*P5A100E21**16	40,000	12.7	15.5
4744878	24ABC642A**30	CAP**4823A**	59*P5A120E24**22	40,500	12.7	15.5
3631869	24ABC642A**30	CAP**4823A**+TDR		40,500	12.0	14.0
3630633	24ABC642A**30	CAP**4824A**	58CV(A,X)110−20	40,500	13.0	15.5
3630690	24ABC642A**30	CAP**4824A**	58CV(A,X)135−22	40,500	13.0	16.0
3630741	24ABC642A**30	CAP**4824A**	58CV(A,X)155−22	40,500	13.0	16.0
3631076	24ABC642A**30	CAP**4824A**	58ME(B,C)100−20	40,500	13.0	16.0
3631110	24ABC642A**30	CAP**4824A**	58ME(B,C)120−20	41,000	13.0	16.0
3631242	24ABC642A**30	CAP**4824A**	58MV(B,C)080−14	40,000	12.5	15.0
3631293	24ABC642A**30	CAP**4824A**	58MV(B,C)080−20	40,500	12.5	15.2
3631357	24ABC642A**30	CAP**4824A**	58MV(B,C)100−20	40,000	13.0	15.2
3631407	24ABC642A**30	CAP**4824A**	58MV(B,C)120−20	40,500	13.0	15.5
3631455	24ABC642A**30	CAP**4824A**	58MVB040−14	40,000	12.5	15.0
3631580	24ABC642A**30	CAP**4824A**	58PH*090−16	40,500	13.0	15.5
3631632	24ABC642A**30	CAP**4824A**	58PH*110−20	40,500	13.0	16.0
3631666	24ABC642A**30	CAP**4824A**	58PH*135−20	40,500	13.0	15.5
3632033	24ABC642A**30	CAP**4824A**	58UVB080−14	40,000	12.5	15.0
3632084	24ABC642A**30	CAP**4824A**	58UVB080−20	40,500	12.5	15.2
3632148	24ABC642A**30	CAP**4824A**	58UVB100−20	40,000	13.0	15.2
3632198	24ABC642A**30	CAP**4824A**	58UVB120−20	40,500	13.0	15.5
3645051	24ABC642A**30	CAP**4824A**	58VLR120−20	40,500	13.0	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3645050	24ABC642A**30	CAP**4824A**	58VMR120−20	40,000	13.0	15.5
4744871	24ABC642A**30	CAP**4824A**	59*N*A100V21**20	40,000	12.7	15.5
4744872	24ABC642A**30	CAP**4824A**	59*N*A120V24**22	40,000	13.0	16.0
4744873	24ABC642A**30	CAP**4824A**	59*P5A100E21**16	40,500	12.7	15.5
4744874	24ABC642A**30	CAP**4824A**	59*P5A120E24**22	41,000	12.7	15.5
3631866	24ABC642A**30	CAP**4824A**+TDR		40,500	12.0	14.0
3630576	24ABC642A**30	CAP**6021A**	58CV(A,X)090−16	41,000	13.0	16.0
3630634	24ABC642A**30	CAP**6021A**	58CV(A,X)110−20	41,000	13.0	16.0
3630862	24ABC642A**30	CAP**6021A**	58ME(B,C)040−12	41,500	13.0	15.5
3630928	24ABC642A**30	CAP**6021A**	58ME(B,C)060−12	41,500	13.0	15.5
3630990	24ABC642A**30	CAP**6021A**	58ME(B,C)080−12	41,500	13.0	15.5
3631037	24ABC642A**30	CAP**6021A**	58ME(B,C)080−16	41,000	13.0	15.5
3631077	24ABC642A**30	CAP**6021A**	58ME(B,C)100−20	41,500	13.0	16.0
3631192	24ABC642A**30	CAP**6021A**	58MV(B,C)060−14	41,000	13.0	15.5
3631243	24ABC642A**30	CAP**6021A**	58MV(B,C)080−14	41,000	12.5	15.0
3631294	24ABC642A**30	CAP**6021A**	58MV(B,C)080−20	41,000	13.0	15.5
3631358	24ABC642A**30	CAP**6021A**	58MV(B,C)100−20	40,500	13.0	15.5
3631540	24ABC642A**30	CAP**6021A**	58PH*070−16	41,000	12.5	15.0
3631581	24ABC642A**30	CAP**6021A**	58PH*090−16	41,000	13.0	16.0
3631633	24ABC642A**30	CAP**6021A**	58PH*110−20	41,500	13.0	16.0
3631982	24ABC642A**30	CAP**6021A**	58UVB060−14	41,000	13.0	15.5
3632034	24ABC642A**30	CAP**6021A**	58UVB080−14	41,000	12.5	15.0
3632085	24ABC642A**30	CAP**6021A**	58UVB080−20	41,000	13.0	15.5
3632149	24ABC642A**30	CAP**6021A**	58UVB100−20	40,500	13.0	15.5
3645053	24ABC642A**30	CAP**6021A**	58VLR120−20	41,000	13.0	16.0
3645052	24ABC642A**30	CAP**6021A**	58VMR120−20	41,000	13.0	16.0
3631867	24ABC642A**30	CAP**6021A**+TDR		41,500	12.0	14.5
3630635	24ABC642A**30	CAP**6024A**	58CV(A,X)110−20	41,000	13.0	16.0
3630691	24ABC642A**30	CAP**6024A**	58CV(A,X)135−22	41,000	13.0	16.0
3630742	24ABC642A**30	CAP**6024A**	58CV(A,X)155−22	41,000	13.0	16.0
3631078	24ABC642A**30	CAP**6024A**	58ME(B,C)100−20	41,500	13.0	16.0
3631111	24ABC642A**30	CAP**6024A**	58ME(B,C)120−20	41,500	13.0	16.0
3631244	24ABC642A**30	CAP**6024A**	58MV(B,C)080−14	41,000	13.0	15.2
3631295	24ABC642A**30	CAP**6024A**	58MV(B,C)080−20	41,000	13.0	15.5
3631359	24ABC642A**30	CAP**6024A**	58MV(B,C)100−20	40,500	13.0	15.5
3631408	24ABC642A**30	CAP**6024A**	58MV(B,C)120−20	41,000	13.0	16.0
3631456	24ABC642A**30	CAP**6024A**	58MVB040−14	40,500	13.0	15.2
3631582	24ABC642A**30	CAP**6024A**	58PH*090−16	41,000	13.0	16.0
3631634	24ABC642A**30	CAP**6024A**	58PH*110−20	41,500	13.0	16.0
3631667	24ABC642A**30	CAP**6024A**	58PH*135−20	41,500	13.0	16.0
3632035	24ABC642A**30	CAP**6024A**	58UVB080−14	41,000	13.0	15.2
3632086	24ABC642A**30	CAP**6024A**	58UVB080−20	41,000	13.0	15.5
3632150	24ABC642A**30	CAP**6024A**	58UVB100−20	40,500	13.0	15.5
3632199	24ABC642A**30	CAP**6024A**	58UVB120−20	41,000	13.0	16.0
3645055	24ABC642A**30	CAP**6024A**	58VLR120−20	41,000	13.0	16.0
3645054	24ABC642A**30	CAP**6024A**	58VMR120−20	41,000	13.0	16.0
3631868	24ABC642A**30	CAP**6024A**+TDR		41,500	12.0	14.5
3630791	24ABC642A**30	CAP**6025A**	58HDV080−−20	41,500	13.0	15.0
3630800	24ABC642A**30	CAP**6025A**	58HDV100−−20	41,500	13.0	15.5
3631870	24ABC642A**30	CAP**6025A**+TDR		41,500	12.0	14.5
3630514	24ABC642A**30	CNPH*4221A**	58CV(A,X)070−12	39,500	12.5	14.5
3630580	24ABC642A**30	CNPH*4221A**	58CV(A,X)090−16	40,000	12.5	15.0
3630640	24ABC642A**30	CNPH*4221A**	58CV(A,X)110−20	40,000	12.5	15.0
3630694	24ABC642A**30	CNPH*4221A**	58CV(A,X)135−22	40,000	13.0	15.5
3630745	24ABC642A**30	CNPH*4221A**	58CV(A,X)155−22	40,000	13.0	15.5
4137716	24ABC642A**30	CNPH*4221A**	58HDV060−−12	40,000	12.0	14.5
4137717	24ABC642A**30	CNPH*4221A**	58HDV080−−20	40,000	12.0	14.5
4137718	24ABC642A**30	CNPH*4221A**	58HDV100−−20	40,000	12.5	15.2
3630866	24ABC642A**30	CNPH*4221A**	58ME(B,C)040−12	40,000	12.5	15.0
3630932	24ABC642A**30	CNPH*4221A**	58ME(B,C)060−12	40,000	12.5	15.0
3630994	24ABC642A**30	CNPH*4221A**	58ME(B,C)080−12	40,000	12.5	15.0
3631041	24ABC642A**30	CNPH*4221A**	58ME(B,C)080−16	40,000	12.5	15.0
3631083	24ABC642A**30	CNPH*4221A**	58ME(B,C)100−20	40,000	13.0	15.5
3631114	24ABC642A**30	CNPH*4221A**	58ME(B,C)120−20	40,000	13.0	15.5
3631196	24ABC642A**30	CNPH*4221A**	58MV(B,C)060−14	40,000	12.5	15.0
3631249	24ABC642A**30	CNPH*4221A**	58MV(B,C)080−14	39,500	12.0	14.5
3631300	24ABC642A**30	CNPH*4221A**	58MV(B,C)080−20	39,500	12.5	14.5
3631364	24ABC642A**30	CNPH*4221A**	58MV(B,C)100−20	39,500	12.5	15.0
3631411	24ABC642A**30	CNPH*4221A**	58MV(B,C)120−20	40,000	12.5	15.0
3631459	24ABC642A**30	CNPH*4221A**	58MVB040−14	39,500	12.5	14.5
3631544	24ABC642A**30	CNPH*4221A**	58PH*070−16	39,500	12.0	14.5
3631587	24ABC642A**30	CNPH*4221A**	58PH*090−16	40,000	12.5	15.0
3631639	24ABC642A**30	CNPH*4221A**	58PH*110−20	40,000	13.0	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3631670	24ABC642A**30	CNPH*4221A**	58PH*135−20	40,000	12.5	15.0
3645067	24ABC642A**30	CNPH*4221A**	58VLR120−20	40,000	12.5	15.0
3645066	24ABC642A**30	CNPH*4221A**	58VMR120−20	39,500	12.5	15.0
4744903	24ABC642A**30	CNPH*4221A**	59*N*A060V17**14	39,500	12.0	14.5
4744904	24ABC642A**30	CNPH*4221A**	59*N*A080V17**14	39,500	12.5	15.0
4744905	24ABC642A**30	CNPH*4221A**	59*N*A100V21**20	39,500	12.5	15.2
4744906	24ABC642A**30	CNPH*4221A**	59*N*A120V24**22	39,500	12.7	15.5
4744907	24ABC642A**30	CNPH*4221A**	59*P5A060E17**14	39,500	12.0	14.5
4744908	24ABC642A**30	CNPH*4221A**	59*P5A080E17**16	40,000	12.5	15.0
4744909	24ABC642A**30	CNPH*4221A**	59*P5A100E21**16	39,500	12.5	15.2
4744910	24ABC642A**30	CNPH*4221A**	59*P5A120E24**22	40,000	12.7	15.5
4137744	24ABC642A**30	CNPH*4221A**	OVLAAB048112	40,000	12.0	14.5
4137745	24ABC642A**30	CNPH*4221A**	OVLAAB060154	40,500	12.0	14.5
4137743	24ABC642A**30	CNPH*4221A**	OVMAAB042112	39,500	12.0	14.5
3631876	24ABC642A**30	CNPH*4221A**+TDR		40,000	12.0	14.0
3632249	24ABC642A**30	CNPH*4321A**	58CV(A,X)070−12	40,500	12.5	15.0
3632252	24ABC642A**30	CNPH*4321A**	58CV(A,X)090−16	41,000	13.0	16.0
3632254	24ABC642A**30	CNPH*4321A**	58CV(A,X)110−20	41,000	13.0	16.0
3632256	24ABC642A**30	CNPH*4321A**	58CV(A,X)135−22	41,000	13.0	16.0
3632258	24ABC642A**30	CNPH*4321A**	58CV(A,X)155−22	41,000	13.0	16.0
4137719	24ABC642A**30	CNPH*4321A**	58HDV060−−12	41,500	12.5	15.0
4137720	24ABC642A**30	CNPH*4321A**	58HDV080−−20	41,500	12.5	15.5
4137721	24ABC642A**30	CNPH*4321A**	58HDV100−−20	41,500	12.5	15.5
3632261	24ABC642A**30	CNPH*4321A**	58ME(B,C)040−12	41,500	13.0	15.5
3632264	24ABC642A**30	CNPH*4321A**	58ME(B,C)060−12	41,500	13.0	15.5
3632265	24ABC642A**30	CNPH*4321A**	58ME(B,C)080−12	41,500	13.0	15.5
3632266	24ABC642A**30	CNPH*4321A**	58ME(B,C)080−16	41,000	13.0	15.5
3632269	24ABC642A**30	CNPH*4321A**	58ME(B,C)100−20	41,500	13.0	16.0
3632271	24ABC642A**30	CNPH*4321A**	58ME(B,C)120−20	41,500	13.0	16.0
3632274	24ABC642A**30	CNPH*4321A**	58MV(B,C)060−14	41,000	13.0	15.5
3632276	24ABC642A**30	CNPH*4321A**	58MV(B,C)080−14	41,000	12.5	15.0
3632278	24ABC642A**30	CNPH*4321A**	58MV(B,C)080−20	41,000	13.0	15.5
3632280	24ABC642A**30	CNPH*4321A**	58MV(B,C)100−20	40,500	13.0	15.5
3632282	24ABC642A**30	CNPH*4321A**	58MV(B,C)120−20	41,000	13.0	16.0
3632284	24ABC642A**30	CNPH*4321A**	58MVB040−14	40,500	12.5	15.0
3632287	24ABC642A**30	CNPH*4321A**	58PH*070−16	41,000	12.5	15.0
3632289	24ABC642A**30	CNPH*4321A**	58PH*090−16	41,000	13.0	16.0
3632291	24ABC642A**30	CNPH*4321A**	58PH*110−20	41,500	13.0	16.0
3632293	24ABC642A**30	CNPH*4321A**	58PH*135−20	41,000	13.0	16.0
3645069	24ABC642A**30	CNPH*4321A**	58VLR120−20	41,000	13.0	16.0
3645068	24ABC642A**30	CNPH*4321A**	58VMR120−20	41,000	13.0	16.0
4744911	24ABC642A**30	CNPH*4321A**	59*N*A060V17**14	40,500	12.5	15.2
4744912	24ABC642A**30	CNPH*4321A**	59*N*A080V17**14	40,500	12.7	15.5
4744913	24ABC642A**30	CNPH*4321A**	59*N*A100V21**20	40,500	12.7	15.5
4744914	24ABC642A**30	CNPH*4321A**	59*N*A120V24**22	40,500	13.0	16.0
4744915	24ABC642A**30	CNPH*4321A**	59*P5A060E17**14	41,000	12.5	15.2
4744916	24ABC642A**30	CNPH*4321A**	59*P5A080E17**16	41,000	12.7	15.5
4744917	24ABC642A**30	CNPH*4321A**	59*P5A100E21**16	41,000	12.7	15.5
4744918	24ABC642A**30	CNPH*4321A**	59*P5A120E24**22	41,500	13.0	16.0
4137747	24ABC642A**30	CNPH*4321A**	OVLAAB048112	41,000	12.5	15.0
4137748	24ABC642A**30	CNPH*4321A**	OVLAAB060154	42,000	12.5	15.5
4137746	24ABC642A**30	CNPH*4321A**	OVMAAB042112	41,000	12.5	15.2
3632310	24ABC642A**30	CNPH*4321A**+TDR		41,500	12.0	14.5
3630515	24ABC642A**30	CNPH*4821A**	58CV(A,X)070−12	40,500	12.5	15.0
3630581	24ABC642A**30	CNPH*4821A**	58CV(A,X)090−16	40,500	13.0	15.5
3630641	24ABC642A**30	CNPH*4821A**	58CV(A,X)110−20	40,500	13.0	16.0
3630695	24ABC642A**30	CNPH*4821A**	58CV(A,X)135−22	40,500	13.0	16.0
3630746	24ABC642A**30	CNPH*4821A**	58CV(A,X)155−22	40,500	13.0	16.0
4137722	24ABC642A**30	CNPH*4821A**	58HDV060−−12	41,000	12.0	14.5
4137723	24ABC642A**30	CNPH*4821A**	58HDV080−−20	41,000	12.5	15.2
4137724	24ABC642A**30	CNPH*4821A**	58HDV100−−20	41,000	12.5	15.5
3630867	24ABC642A**30	CNPH*4821A**	58ME(B,C)040−12	41,000	13.0	15.2
3630933	24ABC642A**30	CNPH*4821A**	58ME(B,C)060−12	41,000	12.5	15.0
3630995	24ABC642A**30	CNPH*4821A**	58ME(B,C)080−12	41,000	13.0	15.5
3631042	24ABC642A**30	CNPH*4821A**	58ME(B,C)080−16	40,500	13.0	15.5
3631084	24ABC642A**30	CNPH*4821A**	58ME(B,C)100−20	41,000	13.0	16.0
3631115	24ABC642A**30	CNPH*4821A**	58ME(B,C)120−20	41,000	13.0	16.0
3631197	24ABC642A**30	CNPH*4821A**	58MV(B,C)060−14	40,500	13.0	15.5
3631250	24ABC642A**30	CNPH*4821A**	58MV(B,C)080−14	40,500	12.5	15.0
3631301	24ABC642A**30	CNPH*4821A**	58MV(B,C)080−20	40,500	12.5	15.2
3631365	24ABC642A**30	CNPH*4821A**	58MV(B,C)100−20	40,000	13.0	15.5
3631412	24ABC642A**30	CNPH*4821A**	58MV(B,C)120−20	40,500	13.0	15.5
3631460	24ABC642A**30	CNPH*4821A**	58MVB040−14	40,000	12.5	15.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3631545	24ABC642A**30	CNPH*4821A**	58PH*070−16	40,500	12.0	14.5
3631588	24ABC642A**30	CNPH*4821A**	58PH*090−16	40,500	13.0	15.5
3631640	24ABC642A**30	CNPH*4821A**	58PH*110−20	41,000	13.0	16.0
3631671	24ABC642A**30	CNPH*4821A**	58PH*135−20	41,000	13.0	16.0
3645071	24ABC642A**30	CNPH*4821A**	58VLR120−20	40,500	13.0	16.0
3645070	24ABC642A**30	CNPH*4821A**	58VMR120−20	40,500	13.0	15.5
4744919	24ABC642A**30	CNPH*4821A**	59*N*A060V17**14	40,000	12.5	15.2
4744920	24ABC642A**30	CNPH*4821A**	59*N*A080V17**14	40,000	12.7	15.5
4744921	24ABC642A**30	CNPH*4821A**	59*N*A100V21**20	40,000	12.7	15.5
4744922	24ABC642A**30	CNPH*4821A**	59*N*A120V24**22	40,000	13.0	16.0
4744923	24ABC642A**30	CNPH*4821A**	59*P5A060E17**14	40,500	12.5	15.2
4744924	24ABC642A**30	CNPH*4821A**	59*P5A080E17**16	40,500	12.5	15.2
4744925	24ABC642A**30	CNPH*4821A**	59*P5A100E21**16	40,500	12.7	15.5
4744926	24ABC642A**30	CNPH*4821A**	59*P5A120E24**22	41,000	12.7	15.5
4137750	24ABC642A**30	CNPH*4821A**	OVLAAB048112	40,500	12.0	14.5
4137751	24ABC642A**30	CNPH*4821A**	OVLAAB060154	41,500	12.5	15.2
4137749	24ABC642A**30	CNPH*4821A**	OVMAAB042112	40,500	12.5	15.2
3631877	24ABC642A**30	CNPH*4821A**+TDR		41,000	12.0	14.0
3630516	24ABC642A**30	CNPH*6024A**	58CV(A,X)070−12	41,000	13.0	15.2
3630582	24ABC642A**30	CNPH*6024A**	58CV(A,X)090−16	41,000	13.0	16.0
3630642	24ABC642A**30	CNPH*6024A**	58CV(A,X)110−20	41,000	13.0	16.0
3630696	24ABC642A**30	CNPH*6024A**	58CV(A,X)135−22	41,000	13.0	16.0
3630747	24ABC642A**30	CNPH*6024A**	58CV(A,X)155−22	41,000	13.0	16.0
3630868	24ABC642A**30	CNPH*6024A**	58ME(B,C)040−12	41,500	13.0	15.5
3630934	24ABC642A**30	CNPH*6024A**	58ME(B,C)060−12	41,500	13.0	15.5
3630996	24ABC642A**30	CNPH*6024A**	58ME(B,C)080−12	41,500	13.0	15.5
3631043	24ABC642A**30	CNPH*6024A**	58ME(B,C)080−16	41,000	13.0	15.5
3631085	24ABC642A**30	CNPH*6024A**	58ME(B,C)100−20	41,500	13.0	16.0
3631116	24ABC642A**30	CNPH*6024A**	58ME(B,C)120−20	41,500	13.0	16.0
3631198	24ABC642A**30	CNPH*6024A**	58MV(B,C)060−14	41,000	13.0	15.5
3631251	24ABC642A**30	CNPH*6024A**	58MV(B,C)080−14	41,000	13.0	15.5
3631302	24ABC642A**30	CNPH*6024A**	58MV(B,C)080−20	41,000	13.0	15.5
3631366	24ABC642A**30	CNPH*6024A**	58MV(B,C)100−20	40,500	13.0	15.5
3631413	24ABC642A**30	CNPH*6024A**	58MV(B,C)120−20	41,000	13.0	16.0
3631461	24ABC642A**30	CNPH*6024A**	58MVB040−14	40,500	13.0	15.5
3631546	24ABC642A**30	CNPH*6024A**	58PH*070−16	41,000	12.5	14.5
3631589	24ABC642A**30	CNPH*6024A**	58PH*090−16	41,500	13.0	16.0
3631641	24ABC642A**30	CNPH*6024A**	58PH*110−20	41,500	13.0	16.0
3631672	24ABC642A**30	CNPH*6024A**	58PH*135−20	41,500	13.0	16.0
3645073	24ABC642A**30	CNPH*6024A**	58VLR120−20	41,000	13.0	16.0
3645072	24ABC642A**30	CNPH*6024A**	58VMR120−20	41,000	13.0	16.0
3631879	24ABC642A**30	CNPH*6024A**		41,500	12.0	14.5
3631878	24ABC642A**30	CNPH*6024A**+TDR		41,500	12.0	14.0
3630513	24ABC642A**30	CNPV*4217A**	58CV(A,X)070−12	40,000	12.5	14.5
3630577	24ABC642A**30	CNPV*4217A**	58CV(A,X)090−16	40,000	12.5	15.2
4137731	24ABC642A**30	CNPV*4217A**	58HDV060−−12	40,000	12.0	14.5
3630863	24ABC642A**30	CNPV*4217A**	58ME(B,C)040−12	40,500	12.5	15.0
3630929	24ABC642A**30	CNPV*4217A**	58ME(B,C)060−12	40,500	12.5	15.0
3630991	24ABC642A**30	CNPV*4217A**	58ME(B,C)080−12	40,500	12.5	15.0
3631038	24ABC642A**30	CNPV*4217A**	58ME(B,C)080−16	40,000	12.5	15.0
3631193	24ABC642A**30	CNPV*4217A**	58MV(B,C)060−14	40,500	12.5	15.0
3631541	24ABC642A**30	CNPV*4217A**	58PH*070−16	40,000	12.0	14.5
3631983	24ABC642A**30	CNPV*4217A**	58UVB060−14	40,500	12.5	15.0
4744879	24ABC642A**30	CNPV*4217A**	59*N*A060V17**14	39,500	12.5	15.0
4744880	24ABC642A**30	CNPV*4217A**	59*N*A080V17**14	39,500	12.5	15.2
4744881	24ABC642A**30	CNPV*4217A**	59*P5A060E17**14	40,000	12.5	15.0
4744882	24ABC642A**30	CNPV*4217A**	59*P5A080E17**16	40,000	12.5	15.0
4137732	24ABC642A**30	CNPV*4217A**	OVMAAB042112	40,000	12.0	14.5
3631871	24ABC642A**30	CNPV*4217A**+TDR		40,500	12.0	14.0
3630578	24ABC642A**30	CNPV*4221A**	58CV(A,X)090−16	40,000	12.5	15.0
3630636	24ABC642A**30	CNPV*4221A**	58CV(A,X)110−20	40,000	12.5	15.0
4137725	24ABC642A**30	CNPV*4221A**	58HDV060−−12	40,000	12.0	14.5
4137733	24ABC642A**30	CNPV*4221A**	58HDV080−−20	40,000	12.0	14.5
3630864	24ABC642A**30	CNPV*4221A**	58ME(B,C)040−12	40,000	12.5	15.0
3630930	24ABC642A**30	CNPV*4221A**	58ME(B,C)060−12	40,000	12.5	15.0
3630992	24ABC642A**30	CNPV*4221A**	58ME(B,C)080−12	40,000	12.5	15.0
3631039	24ABC642A**30	CNPV*4221A**	58ME(B,C)080−16	40,000	12.5	15.0
3631079	24ABC642A**30	CNPV*4221A**	58ME(B,C)100−20	40,000	13.0	15.5
3631194	24ABC642A**30	CNPV*4221A**	58MV(B,C)060−14	40,000	12.5	15.0
3631245	24ABC642A**30	CNPV*4221A**	58MV(B,C)080−14	39,500	12.0	14.5
3631296	24ABC642A**30	CNPV*4221A**	58MV(B,C)080−20	39,500	12.5	14.5
3631360	24ABC642A**30	CNPV*4221A**	58MV(B,C)100−20	39,500	12.5	15.0
3631542	24ABC642A**30	CNPV*4221A**	58PH*070−16	39,500	12.0	14.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3631583	24ABC642A**30	CNPV*4221A**	58PH*090−16	40,000	12.5	15.0
3631635	24ABC642A**30	CNPV*4221A**	58PH*110−20	40,000	13.0	15.5
3631984	24ABC642A**30	CNPV*4221A**	58UVB060−14	40,000	12.5	15.0
3632036	24ABC642A**30	CNPV*4221A**	58UVB080−14	39,500	12.0	14.5
3632087	24ABC642A**30	CNPV*4221A**	58UVB080−20	39,500	12.5	14.5
3632151	24ABC642A**30	CNPV*4221A**	58UVB100−20	39,500	12.5	15.0
3645057	24ABC642A**30	CNPV*4221A**	58VLR120−20	40,000	12.5	15.0
3645056	24ABC642A**30	CNPV*4221A**	58VMR120−20	39,500	12.5	15.0
4744883	24ABC642A**30	CNPV*4221A**	59*N*A060V17**14	39,500	12.0	14.5
4744884	24ABC642A**30	CNPV*4221A**	59*N*A080V17**14	39,500	12.5	15.0
4744885	24ABC642A**30	CNPV*4221A**	59*N*A100V21**20	39,500	12.5	15.2
4744886	24ABC642A**30	CNPV*4221A**	59*P5A060E17**14	39,500	12.0	14.5
4744887	24ABC642A**30	CNPV*4221A**	59*P5A080E17**16	40,000	12.5	15.0
4744888	24ABC642A**30	CNPV*4221A**	59*P5A100E21**16	39,500	12.5	15.2
4137735	24ABC642A**30	CNPV*4221A**	OVLAAB048112	40,000	12.0	14.5
4137734	24ABC642A**30	CNPV*4221A**	OVMAAB042112	39,500	12.0	14.5
3631872	24ABC642A**30	CNPV*4221A**+TDR		40,000	12.0	14.0
3632253	24ABC642A**30	CNPV*4324A**	58CV(A,X)110−20	41,000	13.0	16.0
3632255	24ABC642A**30	CNPV*4324A**	58CV(A,X)135−22	41,000	13.0	16.0
3632257	24ABC642A**30	CNPV*4324A**	58CV(A,X)155−22	41,000	13.0	16.0
4137726	24ABC642A**30	CNPV*4324A**	58HDV080−−20	41,500	12.5	15.5
4137727	24ABC642A**30	CNPV*4324A**	58HDV100−−20	41,500	13.0	16.0
3632267	24ABC642A**30	CNPV*4324A**	58ME(B,C)100−20	41,500	13.0	16.0
3632270	24ABC642A**30	CNPV*4324A**	58ME(B,C)120−20	41,500	13.0	16.0
3632275	24ABC642A**30	CNPV*4324A**	58MV(B,C)080−14	41,000	13.0	15.5
3632277	24ABC642A**30	CNPV*4324A**	58MV(B,C)080−20	41,000	13.0	15.5
3632279	24ABC642A**30	CNPV*4324A**	58MV(B,C)100−20	40,500	13.0	16.0
3632281	24ABC642A**30	CNPV*4324A**	58MV(B,C)120−20	41,000	13.0	16.0
3632283	24ABC642A**30	CNPV*4324A**	58MVB040−14	40,500	13.0	15.5
3632288	24ABC642A**30	CNPV*4324A**	58PH*090−16	41,500	13.0	16.0
3632290	24ABC642A**30	CNPV*4324A**	58PH*110−20	41,500	13.0	16.0
3632292	24ABC642A**30	CNPV*4324A**	58PH*135−20	41,500	13.0	16.0
3632319	24ABC642A**30	CNPV*4324A**	58UVB080−14	41,000	13.0	15.5
3632321	24ABC642A**30	CNPV*4324A**	58UVB080−20	41,000	13.0	15.5
3632323	24ABC642A**30	CNPV*4324A**	58UVB100−20	40,500	13.0	16.0
3632325	24ABC642A**30	CNPV*4324A**	58UVB120−20	41,000	13.0	16.0
3645059	24ABC642A**30	CNPV*4324A**	58VLR120−20	41,000	13.0	16.0
3645058	24ABC642A**30	CNPV*4324A**	58VMR120−20	41,000	13.0	16.0
4744889	24ABC642A**30	CNPV*4324A**	59*N*A100V21**20	40,500	13.0	16.0
4744890	24ABC642A**30	CNPV*4324A**	59*N*A120V24**22	41,000	13.0	16.0
4744891	24ABC642A**30	CNPV*4324A**	59*P5A100E21**16	41,000	12.7	15.5
4744892	24ABC642A**30	CNPV*4324A**	59*P5A120E24**22	41,500	13.0	16.0
4137736	24ABC642A**30	CNPV*4324A**	OVLAAB048112	41,000	12.5	15.2
4137737	24ABC642A**30	CNPV*4324A**	OVLAAB060154	42,000	12.5	15.5
3630579	24ABC642A**30	CNPV*4821A**	58CV(A,X)090−16	40,500	13.0	15.5
3630637	24ABC642A**30	CNPV*4821A**	58CV(A,X)110−20	40,500	13.0	16.0
4137728	24ABC642A**30	CNPV*4821A**	58HDV060−−12	41,000	12.0	14.5
4137738	24ABC642A**30	CNPV*4821A**	58HDV080−−20	41,000	12.5	15.0
3630865	24ABC642A**30	CNPV*4821A**	58ME(B,C)040−12	41,000	13.0	15.2
3630931	24ABC642A**30	CNPV*4821A**	58ME(B,C)060−12	41,000	13.0	15.2
3630993	24ABC642A**30	CNPV*4821A**	58ME(B,C)080−12	41,000	13.0	15.5
3631040	24ABC642A**30	CNPV*4821A**	58ME(B,C)080−16	40,500	13.0	15.5
3631080	24ABC642A**30	CNPV*4821A**	58ME(B,C)100−20	41,000	13.0	16.0
3631195	24ABC642A**30	CNPV*4821A**	58MV(B,C)060−14	40,500	13.0	15.5
3631246	24ABC642A**30	CNPV*4821A**	58MV(B,C)080−14	40,500	12.5	15.0
3631297	24ABC642A**30	CNPV*4821A**	58MV(B,C)080−20	40,500	13.0	15.2
3631361	24ABC642A**30	CNPV*4821A**	58MV(B,C)100−20	40,000	13.0	15.5
3631543	24ABC642A**30	CNPV*4821A**	58PH*070−16	40,500	12.0	14.5
3631584	24ABC642A**30	CNPV*4821A**	58PH*090−16	40,500	13.0	15.5
3631636	24ABC642A**30	CNPV*4821A**	58PH*110−20	41,000	13.0	16.0
3631985	24ABC642A**30	CNPV*4821A**	58UVB060−14	40,500	13.0	15.5
3632037	24ABC642A**30	CNPV*4821A**	58UVB080−14	40,500	12.5	15.0
3632088	24ABC642A**30	CNPV*4821A**	58UVB080−20	40,500	13.0	15.2
3632152	24ABC642A**30	CNPV*4821A**	58UVB100−20	40,000	13.0	15.5
3645061	24ABC642A**30	CNPV*4821A**	58VLR120−20	40,500	13.0	16.0
3645060	24ABC642A**30	CNPV*4821A**	58VMR120−20	40,500	13.0	15.5
4744893	24ABC642A**30	CNPV*4821A**	59*N*A060V17**14	40,000	12.5	15.2
4744894	24ABC642A**30	CNPV*4821A**	59*N*A080V17**14	40,000	12.7	15.5
4744895	24ABC642A**30	CNPV*4821A**	59*N*A100V21**20	40,000	12.7	15.5
4744896	24ABC642A**30	CNPV*4821A**	59*P5A060E17**14	40,500	12.5	15.2
4744897	24ABC642A**30	CNPV*4821A**	59*P5A080E17**16	40,500	12.5	15.2
4744898	24ABC642A**30	CNPV*4821A**	59*P5A100E21**16	40,500	12.7	15.5
4137740	24ABC642A**30	CNPV*4821A**	OVLAAB048112	40,500	12.0	14.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
4137739	24ABC642A**30	CNPV*4821A**	OVMAAB042112	40,500	12.5	15.2
3631873	24ABC642A**30	CNPV*4821A**+TDR		41,000	12.0	14.0
3630638	24ABC642A**30	CNPV*4824A**	58CV(A,X)110−20	40,500	13.0	16.0
3630692	24ABC642A**30	CNPV*4824A**	58CV(A,X)135−22	40,500	13.0	16.0
3630743	24ABC642A**30	CNPV*4824A**	58CV(A,X)155−22	40,500	13.0	16.0
4137729	24ABC642A**30	CNPV*4824A**	58HDV080−−20	41,000	12.5	15.2
4137730	24ABC642A**30	CNPV*4824A**	58HDV100−−20	41,000	12.5	15.5
3631081	24ABC642A**30	CNPV*4824A**	58ME(B,C)100−20	41,000	13.0	16.0
3631112	24ABC642A**30	CNPV*4824A**	58ME(B,C)120−20	41,000	13.0	16.0
3631247	24ABC642A**30	CNPV*4824A**	58MV(B,C)080−14	40,500	12.5	15.0
3631298	24ABC642A**30	CNPV*4824A**	58MV(B,C)080−20	40,500	13.0	15.2
3631362	24ABC642A**30	CNPV*4824A**	58MV(B,C)100−20	40,000	13.0	15.5
3631409	24ABC642A**30	CNPV*4824A**	58MV(B,C)120−20	40,500	13.0	15.5
3631457	24ABC642A**30	CNPV*4824A**	58MVB040−14	40,000	12.5	15.0
3631585	24ABC642A**30	CNPV*4824A**	58PH*090−16	40,500	13.0	16.0
3631637	24ABC642A**30	CNPV*4824A**	58PH*110−20	41,000	13.0	16.0
3631668	24ABC642A**30	CNPV*4824A**	58PH*135−20	41,000	13.0	16.0
3632038	24ABC642A**30	CNPV*4824A**	58UVB080−14	40,500	12.5	15.0
3632089	24ABC642A**30	CNPV*4824A**	58UVB080−20	40,500	13.0	15.2
3632153	24ABC642A**30	CNPV*4824A**	58UVB100−20	40,000	13.0	15.5
3632200	24ABC642A**30	CNPV*4824A**	58UVB120−20	40,500	13.0	15.5
3645063	24ABC642A**30	CNPV*4824A**	58VLR120−20	40,500	13.0	16.0
3645062	24ABC642A**30	CNPV*4824A**	58VMR120−20	40,500	13.0	15.5
4744899	24ABC642A**30	CNPV*4824A**	59*N*A100V21**20	40,000	12.7	15.5
4744900	24ABC642A**30	CNPV*4824A**	59*N*A120V24**22	40,000	13.0	16.0
4744901	24ABC642A**30	CNPV*4824A**	59*P5A100E21**16	40,500	12.7	15.5
4744902	24ABC642A**30	CNPV*4824A**	59*P5A120E24**22	41,000	12.7	15.5
4137741	24ABC642A**30	CNPV*4824A**	OVLAAB048112	40,500	12.0	14.5
4137742	24ABC642A**30	CNPV*4824A**	OVLAAB060154	41,500	12.5	15.2
3631874	24ABC642A**30	CNPV*4824A**+TDR		41,000	12.0	14.0
3630639	24ABC642A**30	CNPV*6024A**	58CV(A,X)110−20	41,000	13.0	16.0
3630693	24ABC642A**30	CNPV*6024A**	58CV(A,X)135−22	41,000	13.0	16.0
3630744	24ABC642A**30	CNPV*6024A**	58CV(A,X)155−22	41,000	13.0	16.0
3631082	24ABC642A**30	CNPV*6024A**	58ME(B,C)100−20	41,500	13.0	16.0
3631113	24ABC642A**30	CNPV*6024A**	58ME(B,C)120−20	41,500	13.0	16.0
3631248	24ABC642A**30	CNPV*6024A**	58MV(B,C)080−14	41,000	13.0	15.5
3631299	24ABC642A**30	CNPV*6024A**	58MV(B,C)080−20	41,000	13.0	15.5
3631363	24ABC642A**30	CNPV*6024A**	58MV(B,C)100−20	40,500	13.0	15.5
3631410	24ABC642A**30	CNPV*6024A**	58MV(B,C)120−20	41,000	13.0	16.0
3631458	24ABC642A**30	CNPV*6024A**	58MVB040−14	40,500	13.0	15.5
3631586	24ABC642A**30	CNPV*6024A**	58PH*090−16	41,500	13.0	16.0
3631638	24ABC642A**30	CNPV*6024A**	58PH*110−20	41,500	13.0	16.0
3631669	24ABC642A**30	CNPV*6024A**	58PH*135−20	41,500	13.0	16.0
3632039	24ABC642A**30	CNPV*6024A**	58UVB080−14	41,000	13.0	15.5
3632090	24ABC642A**30	CNPV*6024A**	58UVB080−20	41,000	13.0	15.5
3632154	24ABC642A**30	CNPV*6024A**	58UVB100−20	40,500	13.0	15.5
3632201	24ABC642A**30	CNPV*6024A**	58UVB120−20	41,000	13.0	16.0
3645065	24ABC642A**30	CNPV*6024A**	58VLR120−20	41,000	13.0	16.0
3645064	24ABC642A**30	CNPV*6024A**	58VMR120−20	41,000	13.0	16.0
3631875	24ABC642A**30	CNPV*6024A**+TDR		41,500	12.0	14.0
3630517	24ABC642A**30	CSPH*4212A**	58CV(A,X)070−12	40,500	12.5	15.0
3630583	24ABC642A**30	CSPH*4212A**	58CV(A,X)090−16	40,500	13.0	15.5
3630643	24ABC642A**30	CSPH*4212A**	58CV(A,X)110−20	40,500	13.0	15.5
3630697	24ABC642A**30	CSPH*4212A**	58CV(A,X)135−22	40,500	13.0	16.0
3630748	24ABC642A**30	CSPH*4212A**	58CV(A,X)155−22	40,500	13.0	16.0
3630792	24ABC642A**30	CSPH*4212A**	58HDV080−−20	41,000	12.5	15.0
3630801	24ABC642A**30	CSPH*4212A**	58HDV100−−20	41,000	13.0	15.5
3630869	24ABC642A**30	CSPH*4212A**	58ME(B,C)040−12	41,000	13.0	15.2
3630935	24ABC642A**30	CSPH*4212A**	58ME(B,C)060−12	41,000	12.5	15.0
3630997	24ABC642A**30	CSPH*4212A**	58ME(B,C)080−12	41,000	13.0	15.5
3631044	24ABC642A**30	CSPH*4212A**	58ME(B,C)080−16	40,500	13.0	15.5
3631086	24ABC642A**30	CSPH*4212A**	58ME(B,C)100−20	41,000	13.0	16.0
3631117	24ABC642A**30	CSPH*4212A**	58ME(B,C)120−20	41,000	13.0	16.0
3631199	24ABC642A**30	CSPH*4212A**	58MV(B,C)060−14	41,000	13.0	15.2
3631252	24ABC642A**30	CSPH*4212A**	58MV(B,C)080−14	40,500	12.5	15.0
3631303	24ABC642A**30	CSPH*4212A**	58MV(B,C)080−20	40,500	12.5	15.0
3631367	24ABC642A**30	CSPH*4212A**	58MV(B,C)100−20	40,500	13.0	15.2
3631414	24ABC642A**30	CSPH*4212A**	58MV(B,C)120−20	40,500	13.0	15.5
3631462	24ABC642A**30	CSPH*4212A**	58MVB040−14	40,500	12.5	15.0
3631547	24ABC642A**30	CSPH*4212A**	58PH*070−16	40,500	12.0	14.5
3631590	24ABC642A**30	CSPH*4212A**	58PH*090−16	40,500	13.0	15.5
3631642	24ABC642A**30	CSPH*4212A**	58PH*110−20	41,000	13.0	16.0
3631673	24ABC642A**30	CSPH*4212A**	58PH*135−20	40,500	13.0	15.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3645075	24ABC642A**30	CSPH*4212A**	58VLR120−20	40,500	13.0	15.5
3645074	24ABC642A**30	CSPH*4212A**	58VMR120−20	40,500	13.0	15.5
4744927	24ABC642A**30	CSPH*4212A**	59*N*A060V17**14	40,000	12.5	15.2
4744928	24ABC642A**30	CSPH*4212A**	59*N*A080V17**14	40,000	12.7	15.5
4744929	24ABC642A**30	CSPH*4212A**	59*N*A100V21**20	40,500	12.7	15.5
4744930	24ABC642A**30	CSPH*4212A**	59*N*A120V24**22	40,500	13.0	16.0
4744931	24ABC642A**30	CSPH*4212A**	59*P5A060E17**14	40,500	12.5	15.2
4744932	24ABC642A**30	CSPH*4212A**	59*P5A080E17**16	40,500	12.5	15.2
4744933	24ABC642A**30	CSPH*4212A**	59*P5A100E21**16	40,500	12.7	15.5
4744934	24ABC642A**30	CSPH*4212A**	59*P5A120E24**22	41,000	12.7	15.5
4137753	24ABC642A**30	CSPH*4212A**	OVLAAB048112	40,500	12.0	14.5
4137754	24ABC642A**30	CSPH*4212A**	OVLAAB060154	41,500	12.5	15.2
4137752	24ABC642A**30	CSPH*4212A**	OVMAAB042112	40,500	12.5	15.0
3631881	24ABC642A**30	CSPH*4212A**+TDR		41,000	12.0	14.0
3630518	24ABC642A**30	CSPH*4812A**	58CV(A,X)070−12	40,500	12.5	15.0
3630584	24ABC642A**30	CSPH*4812A**	58CV(A,X)090−16	40,500	13.0	15.5
3630644	24ABC642A**30	CSPH*4812A**	58CV(A,X)110−20	41,000	13.0	15.5
3630698	24ABC642A**30	CSPH*4812A**	58CV(A,X)135−22	41,000	13.0	16.0
3630749	24ABC642A**30	CSPH*4812A**	58CV(A,X)155−22	41,000	13.0	16.0
3630793	24ABC642A**30	CSPH*4812A**	58HDV080−−20	41,000	12.5	15.0
3630802	24ABC642A**30	CSPH*4812A**	58HDV100−−20	41,000	13.0	15.5
3630870	24ABC642A**30	CSPH*4812A**	58ME(B,C)040−12	41,000	13.0	15.5
3630936	24ABC642A**30	CSPH*4812A**	58ME(B,C)060−12	41,000	13.0	15.2
3630998	24ABC642A**30	CSPH*4812A**	58ME(B,C)080−12	41,000	13.0	15.5
3631045	24ABC642A**30	CSPH*4812A**	58ME(B,C)080−16	41,000	13.0	15.5
3631087	24ABC642A**30	CSPH*4812A**	58ME(B,C)100−20	41,000	13.0	16.0
3631118	24ABC642A**30	CSPH*4812A**	58ME(B,C)120−20	41,000	13.0	16.0
3631200	24ABC642A**30	CSPH*4812A**	58MV(B,C)060−14	41,000	13.0	15.2
3631253	24ABC642A**30	CSPH*4812A**	58MV(B,C)080−14	40,500	12.5	15.0
3631304	24ABC642A**30	CSPH*4812A**	58MV(B,C)080−20	40,500	12.5	15.0
3631368	24ABC642A**30	CSPH*4812A**	58MV(B,C)100−20	40,500	13.0	15.2
3631415	24ABC642A**30	CSPH*4812A**	58MV(B,C)120−20	40,500	13.0	15.5
3631463	24ABC642A**30	CSPH*4812A**	58MVB040−14	40,500	12.5	15.0
3631548	24ABC642A**30	CSPH*4812A**	58PH*070−16	40,500	12.5	14.5
3631591	24ABC642A**30	CSPH*4812A**	58PH*090−16	41,000	13.0	16.0
3631643	24ABC642A**30	CSPH*4812A**	58PH*110−20	41,000	13.0	16.0
3631674	24ABC642A**30	CSPH*4812A**	58PH*135−20	41,000	13.0	16.0
3645077	24ABC642A**30	CSPH*4812A**	58VLR120−20	40,500	13.0	16.0
3645076	24ABC642A**30	CSPH*4812A**	58VMR120−20	40,500	13.0	15.5
4744935	24ABC642A**30	CSPH*4812A**	59*N*A060V17**14	40,000	12.5	15.2
4744936	24ABC642A**30	CSPH*4812A**	59*N*A080V17**14	40,500	12.7	15.5
4744937	24ABC642A**30	CSPH*4812A**	59*N*A100V21**20	40,500	12.7	15.5
4744938	24ABC642A**30	CSPH*4812A**	59*N*A120V24**22	40,500	13.0	16.0
4744939	24ABC642A**30	CSPH*4812A**	59*P5A060E17**14	40,500	12.5	15.2
4744940	24ABC642A**30	CSPH*4812A**	59*P5A080E17**16	41,000	12.5	15.2
4744941	24ABC642A**30	CSPH*4812A**	59*P5A100E21**16	40,500	12.7	15.5
4744942	24ABC642A**30	CSPH*4812A**	59*P5A120E24**22	41,000	12.7	15.5
4137756	24ABC642A**30	CSPH*4812A**	OVLAAB048112	41,000	12.0	15.0
4137757	24ABC642A**30	CSPH*4812A**	OVLAAB060154	41,500	12.5	15.2
4137755	24ABC642A**30	CSPH*4812A**	OVMAAB042112	40,500	12.5	15.2
3631882	24ABC642A**30	CSPH*4812A**+TDR		41,000	12.0	14.0
3630519	24ABC642A**30	CSPH*6012A**	58CV(A,X)070−12	41,000	13.0	15.5
3630585	24ABC642A**30	CSPH*6012A**	58CV(A,X)090−16	41,000	13.0	16.0
3630645	24ABC642A**30	CSPH*6012A**	58CV(A,X)110−20	41,500	13.0	16.0
3630699	24ABC642A**30	CSPH*6012A**	58CV(A,X)135−22	41,500	13.0	16.0
3630750	24ABC642A**30	CSPH*6012A**	58CV(A,X)155−22	41,500	13.0	16.0
3630871	24ABC642A**30	CSPH*6012A**	58ME(B,C)040−12	41,500	13.0	15.5
3630937	24ABC642A**30	CSPH*6012A**	58ME(B,C)060−12	41,500	13.0	15.5
3630999	24ABC642A**30	CSPH*6012A**	58ME(B,C)080−12	41,500	13.0	16.0
3631046	24ABC642A**30	CSPH*6012A**	58ME(B,C)080−16	41,500	13.0	16.0
3631088	24ABC642A**30	CSPH*6012A**	58ME(B,C)100−20	41,500	13.0	16.0
3631119	24ABC642A**30	CSPH*6012A**	58ME(B,C)120−20	41,500	13.0	16.0
3631201	24ABC642A**30	CSPH*6012A**	58MV(B,C)060−14	41,500	13.0	16.0
3631254	24ABC642A**30	CSPH*6012A**	58MV(B,C)080−14	41,000	13.0	15.5
3631305	24ABC642A**30	CSPH*6012A**	58MV(B,C)080−20	41,000	13.0	15.5
3631369	24ABC642A**30	CSPH*6012A**	58MV(B,C)100−20	41,000	13.0	15.5
3631416	24ABC642A**30	CSPH*6012A**	58MV(B,C)120−20	41,000	13.0	16.0
3631464	24ABC642A**30	CSPH*6012A**	58MVB040−14	41,000	13.0	15.5
3631549	24ABC642A**30	CSPH*6012A**	58PH*070−16	41,500	12.5	15.0
3631592	24ABC642A**30	CSPH*6012A**	58PH*090−16	41,500	13.0	16.0
3631644	24ABC642A**30	CSPH*6012A**	58PH*110−20	41,500	13.0	16.0
3631675	24ABC642A**30	CSPH*6012A**	58PH*135−20	41,500	13.0	16.0
3645079	24ABC642A**30	CSPH*6012A**	58VLR120−20	41,000	13.0	16.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3645078	24ABC642A**30	CSPH*6012A**	58VMR120−20	41,000	13.0	16.0
3631883	24ABC642A**30	CSPH*6012A**+TDR		41,500	12.0	14.5
3804408	24ABC642A**30	FB4CNF042		41,000	12.5	14.5
3693284	24ABC642A**30	FB4CNF042+TXV		41,000	12.5	15.0
3804409	24ABC642A**30	FB4CNF048		41,500	12.5	14.5
3693285	24ABC642A**30	FB4CNF048+TXV		41,000	13.0	15.0
3631711	24ABC642A**30	FE4AN(B,F)003+UI		40,000	13.0	15.5
3631714	24ABC642A**30	FE4AN(B,F)005+UI		41,000	13.0	16.0
3631717	24ABC642A**30	FE4ANB006+UI		41,500	13.0	16.0
3631749	24ABC642A**30	FE5ANB004+UI		41,500	13.0	16.0
3631807	24ABC642A**30	FV4CN(B,F)003		40,000	13.0	15.5
3631810	24ABC642A**30	FV4CN(B,F)005		41,000	13.0	16.0
3631813	24ABC642A**30	FV4CNB006		41,500	13.0	16.0
3632303	24ABC642A**30	FX4DN(B,F)043		41,000	12.5	15.0
3632305	24ABC642A**30	FX4DN(B,F)049		42,000	13.0	16.0
3804410	24ABC642A**30	FY5BNF042		41,000	12.0	14.0
3693297	24ABC642A**30	FY5BNF042+TXV		40,500	12.5	14.5
3804411	24ABC642A**30	FY5BNF048		41,500	12.0	14.0
3693298	24ABC642A**30	FY5BNF048+TXV		41,500	12.5	14.5
3837754	24ABC648A**31	†CAP**6024A**+TDR		46,000	12.5	14.5
3837839	24ABC648A**31	CAP**4817A**	58CV(A,X)090−16	44,000	12.5	15.0
3837840	24ABC648A**31	CAP**4817A**	58CV(A,X)110−20	44,000	12.5	15.0
3897463	24ABC648A**31	CAP**4817A**	58ME(B,C)080−16	44,000	12.5	15.0
3897464	24ABC648A**31	CAP**4817A**	58ME(B,C)100−20	44,000	13.0	15.5
3837837	24ABC648A**31	CAP**4817A**	58MV(B,C)080−20	44,000	12.5	14.5
3837838	24ABC648A**31	CAP**4817A**	58MV(B,C)100−20	44,000	12.5	14.5
3837841	24ABC648A**31	CAP**4817A**	58PH*090−16	44,000	12.5	15.0
3837842	24ABC648A**31	CAP**4817A**	58PH*110−20	44,000	13.0	15.5
3897413	24ABC648A**31	CAP**4817A**	58UVB080−20	44,000	12.5	14.5
3897414	24ABC648A**31	CAP**4817A**	58UVB100−20	44,000	12.5	14.5
3837836	24ABC648A**31	CAP**4817A**+TDR		44,000	12.5	14.5
3837849	24ABC648A**31	CAP**4821A**	58CV(A,X)090−16	44,500	12.5	15.2
3837850	24ABC648A**31	CAP**4821A**	58CV(A,X)110−20	44,500	12.5	15.0
3837851	24ABC648A**31	CAP**4821A**	58CV(A,X)135−22	44,500	12.5	15.5
3837852	24ABC648A**31	CAP**4821A**	58CV(A,X)155−22	44,500	13.0	15.5
3897465	24ABC648A**31	CAP**4821A**	58ME(B,C)080−16	44,500	12.5	15.0
3897466	24ABC648A**31	CAP**4821A**	58ME(B,C)100−20	44,500	12.5	15.0
3897467	24ABC648A**31	CAP**4821A**	58ME(B,C)120−20	45,000	13.0	15.5
3837846	24ABC648A**31	CAP**4821A**	58MV(B,C)080−20	44,000	12.5	14.5
3837847	24ABC648A**31	CAP**4821A**	58MV(B,C)100−20	44,500	12.5	14.5
3837848	24ABC648A**31	CAP**4821A**	58MV(B,C)120−20	44,500	12.5	15.0
3837853	24ABC648A**31	CAP**4821A**	58PH*090−16	44,500	12.5	15.0
3837854	24ABC648A**31	CAP**4821A**	58PH*110−20	44,500	13.0	15.5
3837855	24ABC648A**31	CAP**4821A**	58PH*135−20	44,500	12.5	15.0
3897415	24ABC648A**31	CAP**4821A**	58UVB080−20	44,000	12.5	14.5
3897416	24ABC648A**31	CAP**4821A**	58UVB100−20	44,500	12.5	14.5
3897417	24ABC648A**31	CAP**4821A**	58UVB120−20	44,500	12.5	15.0
3916505	24ABC648A**31	CAP**4821A**	58VLR120−20	45,000	12.5	15.0
3916504	24ABC648A**31	CAP**4821A**	58VMR120−20	45,000	12.5	15.0
4744943	24ABC648A**31	CAP**4821A**	59*N*A100V21**20	42,000	12.5	15.2
4744944	24ABC648A**31	CAP**4821A**	59*P5A100E21**16	42,000	12.5	15.2
3837845	24ABC648A**31	CAP**4821A**+TDR		45,000	12.0	14.2
3837826	24ABC648A**31	CAP**4823A**	58HDV080−−20	44,500	12.5	14.5
3837827	24ABC648A**31	CAP**4823A**	58HDV100−−20	44,500	12.5	15.0
4744955	24ABC648A**31	CAP**4823A**	59*N*A100V21**20	42,000	12.5	15.2
4744956	24ABC648A**31	CAP**4823A**	59*N*A120V24**22	42,000	12.7	15.5
4744957	24ABC648A**31	CAP**4823A**	59*P5A100E21**16	42,000	12.5	15.2
4744958	24ABC648A**31	CAP**4823A**	59*P5A120E24**22	44,500	12.7	15.5
3916510	24ABC648A**31	CAP**4823A**+TDR		45,000	12.0	14.5
3837863	24ABC648A**31	CAP**4824A**	58CV(A,X)110−20	44,500	12.5	15.0
3837864	24ABC648A**31	CAP**4824A**	58CV(A,X)135−22	44,500	12.5	15.5
3837865	24ABC648A**31	CAP**4824A**	58CV(A,X)155−22	44,500	13.0	16.0
3897468	24ABC648A**31	CAP**4824A**	58ME(B,C)100−20	44,500	12.5	15.5
3897469	24ABC648A**31	CAP**4824A**	58ME(B,C)120−20	45,000	13.0	15.5
3837860	24ABC648A**31	CAP**4824A**	58MV(B,C)080−20	44,000	12.5	15.0
3837861	24ABC648A**31	CAP**4824A**	58MV(B,C)100−20	44,500	12.5	14.5
3837862	24ABC648A**31	CAP**4824A**	58MV(B,C)120−20	44,500	12.5	15.0
3837866	24ABC648A**31	CAP**4824A**	58PH*090−16	44,500	12.5	15.0
3837867	24ABC648A**31	CAP**4824A**	58PH*110−20	44,500	12.5	15.5
3837868	24ABC648A**31	CAP**4824A**	58PH*135−20	44,500	12.5	15.0
3897418	24ABC648A**31	CAP**4824A**	58UVB080−20	44,000	12.5	15.0
3897419	24ABC648A**31	CAP**4824A**	58UVB100−20	44,500	12.5	14.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3897420	24ABC648A**31	CAP**4824A**	58UVB120−20	44,500	12.5	15.0
3916507	24ABC648A**31	CAP**4824A**	58VLR120−20	45,000	12.5	15.0
3916506	24ABC648A**31	CAP**4824A**	58VMR120−20	45,000	12.5	15.0
4744945	24ABC648A**31	CAP**4824A**	59*N*A100V21**20	42,000	12.5	15.2
4744946	24ABC648A**31	CAP**4824A**	59*N*A120V24**22	42,000	12.7	15.5
4744947	24ABC648A**31	CAP**4824A**	59*P5A100E21**16	42,000	12.5	15.2
4744948	24ABC648A**31	CAP**4824A**	59*P5A120E24**22	44,500	12.7	15.5
3837859	24ABC648A**31	CAP**4824A**+TDR		45,000	12.0	14.2
3837759	24ABC648A**31	CAP**6021A**	58CV(A,X)090−16	45,000	13.0	16.0
3837760	24ABC648A**31	CAP**6021A**	58CV(A,X)110−20	45,000	13.0	16.0
3837761	24ABC648A**31	CAP**6021A**	58CV(A,X)135−22	45,000	13.0	16.0
3837762	24ABC648A**31	CAP**6021A**	58CV(A,X)155−22	45,500	13.0	16.0
3897450	24ABC648A**31	CAP**6021A**	58ME(B,C)080−16	45,500	12.5	15.5
3897451	24ABC648A**31	CAP**6021A**	58ME(B,C)100−20	45,500	13.0	16.0
3897452	24ABC648A**31	CAP**6021A**	58ME(B,C)120−20	45,500	13.0	16.0
3837756	24ABC648A**31	CAP**6021A**	58MV(B,C)080−20	45,000	13.0	15.5
3837757	24ABC648A**31	CAP**6021A**	58MV(B,C)100−20	45,000	13.0	15.5
3837758	24ABC648A**31	CAP**6021A**	58MV(B,C)120−20	45,000	13.0	16.0
3837763	24ABC648A**31	CAP**6021A**	58PH*090−16	45,500	13.0	16.0
3837764	24ABC648A**31	CAP**6021A**	58PH*110−20	45,500	13.0	16.0
3837765	24ABC648A**31	CAP**6021A**	58PH*135−20	45,500	13.0	16.0
3897404	24ABC648A**31	CAP**6021A**	58UVB080−20	45,000	13.0	15.5
3897405	24ABC648A**31	CAP**6021A**	58UVB100−20	45,000	13.0	15.5
3897406	24ABC648A**31	CAP**6021A**	58UVB120−20	45,000	13.0	16.0
3837830	24ABC648A**31	CAP**6021A**	58VLR120−20	45,000	13.0	16.0
3916508	24ABC648A**31	CAP**6021A**	58VMR120−20	45,500	12.5	15.5
4744949	24ABC648A**31	CAP**6021A**	59*N*A100V21**20	44,500	12.7	15.5
4744950	24ABC648A**31	CAP**6021A**	59*P5A100E21**16	45,000	12.7	15.5
3837755	24ABC648A**31	CAP**6021A**+TDR		45,500	12.5	14.5
3837772	24ABC648A**31	CAP**6024A**	58CV(A,X)110−20	45,500	13.0	16.0
3837773	24ABC648A**31	CAP**6024A**	58CV(A,X)135−22	45,500	13.0	16.0
3837774	24ABC648A**31	CAP**6024A**	58CV(A,X)155−22	45,500	13.0	16.0
3897453	24ABC648A**31	CAP**6024A**	58ME(B,C)100−20	45,500	13.0	16.0
3897454	24ABC648A**31	CAP**6024A**	58ME(B,C)120−20	45,500	13.0	16.0
3837769	24ABC648A**31	CAP**6024A**	58MV(B,C)080−20	45,000	12.5	15.5
3837770	24ABC648A**31	CAP**6024A**	58MV(B,C)100−20	45,500	12.5	15.3
3837771	24ABC648A**31	CAP**6024A**	58MV(B,C)120−20	45,500	12.5	15.5
3837775	24ABC648A**31	CAP**6024A**	58PH*090−16	45,500	13.0	16.0
3837776	24ABC648A**31	CAP**6024A**	58PH*110−20	45,500	13.0	16.0
3837777	24ABC648A**31	CAP**6024A**	58PH*135−20	45,500	13.0	16.0
3897407	24ABC648A**31	CAP**6024A**	58UVB080−20	45,000	12.5	15.5
3897408	24ABC648A**31	CAP**6024A**	58UVB100−20	45,500	12.5	15.3
3897409	24ABC648A**31	CAP**6024A**	58UVB120−20	45,500	12.5	15.5
3837831	24ABC648A**31	CAP**6024A**	58VLR120−20	45,000	13.0	16.0
3916509	24ABC648A**31	CAP**6024A**	58VMR120−20	45,500	12.5	15.5
4744951	24ABC648A**31	CAP**6024A**	59*N*A100V21**20	44,500	12.7	15.5
4744952	24ABC648A**31	CAP**6024A**	59*N*A120V24**22	45,000	13.0	16.0
4744953	24ABC648A**31	CAP**6024A**	59*P5A100E21**16	45,000	12.7	15.5
4744954	24ABC648A**31	CAP**6024A**	59*P5A120E24**22	45,500	13.0	16.0
3837828	24ABC648A**31	CAP**6025A**	58HDV080−−20	45,500	12.5	15.3
3837829	24ABC648A**31	CAP**6025A**	58HDV100−−20	45,500	13.0	15.5
4744959	24ABC648A**31	CAP**6025A**	59*N*A100V21**20	44,500	12.7	15.5
4744960	24ABC648A**31	CAP**6025A**	59*N*A120V24**22	45,000	13.0	16.0
4744961	24ABC648A**31	CAP**6025A**	59*P5A100E21**16	45,000	12.7	15.5
4744962	24ABC648A**31	CAP**6025A**	59*P5A120E24**22	45,500	13.0	16.0
3916511	24ABC648A**31	CAP**6025A**+TDR		46,000	12.0	14.5
3837901	24ABC648A**31	CNPH*4821A**	58CV(A,X)090−16	44,500	12.5	15.0
3837902	24ABC648A**31	CNPH*4821A**	58CV(A,X)110−20	44,500	12.5	15.0
3837903	24ABC648A**31	CNPH*4821A**	58CV(A,X)135−22	44,500	13.0	15.5
3837904	24ABC648A**31	CNPH*4821A**	58CV(A,X)155−22	45,000	13.0	16.0
4137758	24ABC648A**31	CNPH*4821A**	58HDV080−−20	45,000	12.5	15.0
4137759	24ABC648A**31	CNPH*4821A**	58HDV100−−20	45,000	12.5	15.2
3897475	24ABC648A**31	CNPH*4821A**	58ME(B,C)080−16	45,000	12.5	15.0
3897476	24ABC648A**31	CNPH*4821A**	58ME(B,C)100−20	45,000	12.5	15.5
3897477	24ABC648A**31	CNPH*4821A**	58ME(B,C)120−20	45,000	13.0	16.0
3837898	24ABC648A**31	CNPH*4821A**	58MV(B,C)080−20	44,500	12.5	15.0
3837899	24ABC648A**31	CNPH*4821A**	58MV(B,C)100−20	44,500	12.5	15.0
3837900	24ABC648A**31	CNPH*4821A**	58MV(B,C)120−20	44,500	12.5	15.0
3837905	24ABC648A**31	CNPH*4821A**	58PH*090−16	45,000	12.5	15.0
3837906	24ABC648A**31	CNPH*4821A**	58PH*110−20	45,000	13.0	16.0
3837907	24ABC648A**31	CNPH*4821A**	58PH*135−20	45,000	12.5	15.5
3916531	24ABC648A**31	CNPH*4821A**	58VLR120−20	45,500	12.5	15.0
3916530	24ABC648A**31	CNPH*4821A**	58VMR120−20	45,500	12.5	15.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
4744978	24ABC648A**31	CNPH*4821A**	59*N*A100V21**20	42,000	12.7	15.5
4744979	24ABC648A**31	CNPH*4821A**	59*N*A120V24**22	42,000	12.7	15.5
4744980	24ABC648A**31	CNPH*4821A**	59*P5A080E17**16	42,000	12.5	15.0
4744981	24ABC648A**31	CNPH*4821A**	59*P5A100E21**16	44,500	12.5	15.2
4744982	24ABC648A**31	CNPH*4821A**	59*P5A120E24**22	44,500	12.7	15.5
4137778	24ABC648A**31	CNPH*4821A**	OVLAAB048112	44,500	12.0	14.5
4137779	24ABC648A**31	CNPH*4821A**	OVLAAB060154	45,000	12.5	15.2
3837897	24ABC648A**31	CNPH*4821A**+TDR		45,000	12.0	14.2
3837796	24ABC648A**31	CNPH*6024A**	58CV(A,X)090−16	45,000	12.5	15.5
3837797	24ABC648A**31	CNPH*6024A**	58CV(A,X)110−20	45,500	13.0	16.0
3837798	24ABC648A**31	CNPH*6024A**	58CV(A,X)135−22	45,500	13.0	16.0
3837799	24ABC648A**31	CNPH*6024A**	58CV(A,X)155−22	45,500	13.0	16.0
4137760	24ABC648A**31	CNPH*6024A**	58HDV080−−20	45,500	12.5	15.2
4137761	24ABC648A**31	CNPH*6024A**	58HDV100−−20	45,500	12.5	15.2
3897457	24ABC648A**31	CNPH*6024A**	58ME(B,C)080−16	45,500	12.5	15.0
3897458	24ABC648A**31	CNPH*6024A**	58ME(B,C)100−20	45,500	13.0	16.0
3897459	24ABC648A**31	CNPH*6024A**	58ME(B,C)120−20	46,000	13.0	16.0
3837793	24ABC648A**31	CNPH*6024A**	58MV(B,C)080−20	45,000	12.5	15.5
3837794	24ABC648A**31	CNPH*6024A**	58MV(B,C)100−20	45,500	12.5	15.5
3837795	24ABC648A**31	CNPH*6024A**	58MV(B,C)120−20	45,500	12.5	15.5
3837800	24ABC648A**31	CNPH*6024A**	58PH*090−16	45,500	13.0	16.0
3837801	24ABC648A**31	CNPH*6024A**	58PH*110−20	45,500	13.0	16.0
3837802	24ABC648A**31	CNPH*6024A**	58PH*135−20	45,500	13.0	16.0
3837833	24ABC648A**31	CNPH*6024A**	58VLR120−20	45,000	13.0	16.0
3916532	24ABC648A**31	CNPH*6024A**	58VMR120−20	46,000	12.5	15.5
4744983	24ABC648A**31	CNPH*6024A**	59*N*A100V21**20	44,500	12.7	15.5
4744984	24ABC648A**31	CNPH*6024A**	59*N*A120V24**22	44,500	13.0	16.0
4744985	24ABC648A**31	CNPH*6024A**	59*P5A080E17**16	45,000	12.5	15.2
4744986	24ABC648A**31	CNPH*6024A**	59*P5A100E21**16	45,000	12.7	15.5
4744987	24ABC648A**31	CNPH*6024A**	59*P5A120E24**22	45,500	13.0	16.0
4137780	24ABC648A**31	CNPH*6024A**	OVLAAB048112	45,000	12.5	15.0
4137781	24ABC648A**31	CNPH*6024A**	OVLAAB060154	46,000	12.5	15.2
3837792	24ABC648A**31	CNPH*6024A**+TDR		46,000	12.5	14.5
3916537	24ABC648A**31	CNPH*6124A**	58CV(A,X)090−16	46,500	12.5	15.5
3916538	24ABC648A**31	CNPH*6124A**	58CV(A,X)110−20	46,500	12.5	15.5
3916539	24ABC648A**31	CNPH*6124A**	58CV(A,X)135−22	46,500	13.0	16.0
3916540	24ABC648A**31	CNPH*6124A**	58CV(A,X)155−22	46,500	13.0	16.0
4137762	24ABC648A**31	CNPH*6124A**	58HDV080−−20	45,500	12.5	15.2
4137763	24ABC648A**31	CNPH*6124A**	58HDV100−−20	45,500	12.5	15.5
3916544	24ABC648A**31	CNPH*6124A**	58ME(B,C)080−16	46,500	12.5	15.5
3916545	24ABC648A**31	CNPH*6124A**	58ME(B,C)100−20	46,500	13.0	16.0
3916546	24ABC648A**31	CNPH*6124A**	58ME(B,C)120−20	46,500	13.0	16.0
3916534	24ABC648A**31	CNPH*6124A**	58MV(B,C)080−20	46,500	12.5	15.5
3916535	24ABC648A**31	CNPH*6124A**	58MV(B,C)100−20	46,500	12.5	15.5
3916536	24ABC648A**31	CNPH*6124A**	58MV(B,C)120−20	46,500	12.5	15.5
3916541	24ABC648A**31	CNPH*6124A**	58PH*090−16	46,500	12.5	15.5
3916542	24ABC648A**31	CNPH*6124A**	58PH*110−20	46,500	13.0	16.0
3916543	24ABC648A**31	CNPH*6124A**	58PH*135−20	46,500	13.0	16.0
3916548	24ABC648A**31	CNPH*6124A**	58VLR120−20	46,500	12.5	15.5
3916547	24ABC648A**31	CNPH*6124A**	58VMR120−20	46,500	12.5	15.5
4744988	24ABC648A**31	CNPH*6124A**	59*N*A100V21**20	45,000	12.7	15.5
4744989	24ABC648A**31	CNPH*6124A**	59*N*A120V24**22	45,000	13.0	16.0
4744990	24ABC648A**31	CNPH*6124A**	59*P5A100E21**16	45,000	12.7	15.5
4744991	24ABC648A**31	CNPH*6124A**	59*P5A120E24**22	45,500	13.0	16.0
4137782	24ABC648A**31	CNPH*6124A**	OVLAAB048112	45,000	12.0	15.0
4137783	24ABC648A**31	CNPH*6124A**	OVLAAB060154	46,000	12.5	15.2
3916533	24ABC648A**31	CNPH*6124A**+TDR		46,500	12.5	14.5
3837875	24ABC648A**31	CNPV*4821A**	58CV(A,X)090−16	44,500	12.5	15.0
3837876	24ABC648A**31	CNPV*4821A**	58CV(A,X)110−20	44,500	12.5	15.0
3837877	24ABC648A**31	CNPV*4821A**	58CV(A,X)135−22	44,500	12.5	15.5
3837878	24ABC648A**31	CNPV*4821A**	58CV(A,X)155−22	45,000	13.0	16.0
4137770	24ABC648A**31	CNPV*4821A**	58HDV080−−20	44,500	12.3	15.2
3897470	24ABC648A**31	CNPV*4821A**	58ME(B,C)080−16	45,000	12.5	15.0
3897471	24ABC648A**31	CNPV*4821A**	58ME(B,C)100−20	45,000	12.5	15.5
3897472	24ABC648A**31	CNPV*4821A**	58ME(B,C)120−20	45,000	13.0	16.0
3837872	24ABC648A**31	CNPV*4821A**	58MV(B,C)080−20	44,500	12.5	15.0
3837873	24ABC648A**31	CNPV*4821A**	58MV(B,C)100−20	44,500	12.5	15.0
3837874	24ABC648A**31	CNPV*4821A**	58MV(B,C)120−20	44,500	12.5	15.0
3837879	24ABC648A**31	CNPV*4821A**	58PH*090−16	45,000	12.5	15.0
3837880	24ABC648A**31	CNPV*4821A**	58PH*110−20	45,000	13.0	16.0
3837881	24ABC648A**31	CNPV*4821A**	58PH*135−20	45,000	12.5	15.5
3897421	24ABC648A**31	CNPV*4821A**	58UVB080−20	44,500	12.5	15.0
3897422	24ABC648A**31	CNPV*4821A**	58UVB100−20	44,500	12.5	15.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3897423	24ABC648A**31	CNPV*4821A**	58UVB120−20	44,500	12.5	15.0
3916513	24ABC648A**31	CNPV*4821A**	58VLR120−20	45,000	12.5	15.0
3916512	24ABC648A**31	CNPV*4821A**	58VMR120−20	45,000	12.5	15.0
4744963	24ABC648A**31	CNPV*4821A**	59*N*A100V21**20	42,000	12.7	15.5
4744964	24ABC648A**31	CNPV*4821A**	59*P5A080E17**16	42,000	12.5	15.0
4744965	24ABC648A**31	CNPV*4821A**	59*P5A100E21**16	44,500	12.5	15.2
4137771	24ABC648A**31	CNPV*4821A**	OVLAAB048112	44,500	12.0	14.5
3837871	24ABC648A**31	CNPV*4821A**+TDR		45,000	12.0	14.2
3837889	24ABC648A**31	CNPV*4824A**	58CV(A,X)110−20	44,500	12.5	15.0
3837890	24ABC648A**31	CNPV*4824A**	58CV(A,X)135−22	44,500	13.0	15.5
3837891	24ABC648A**31	CNPV*4824A**	58CV(A,X)155−22	45,000	13.0	16.0
4137764	24ABC648A**31	CNPV*4824A**	58HDV080−−20	44,500	12.5	15.0
4137765	24ABC648A**31	CNPV*4824A**	58HDV100−−20	44,500	12.5	15.2
3897473	24ABC648A**31	CNPV*4824A**	58ME(B,C)100−20	45,000	12.5	15.5
3897474	24ABC648A**31	CNPV*4824A**	58ME(B,C)120−20	45,000	13.0	16.0
3837886	24ABC648A**31	CNPV*4824A**	58MV(B,C)080−20	44,500	12.5	15.0
3837887	24ABC648A**31	CNPV*4824A**	58MV(B,C)100−20	44,500	12.5	15.0
3837888	24ABC648A**31	CNPV*4824A**	58MV(B,C)120−20	44,500	12.5	15.0
3837892	24ABC648A**31	CNPV*4824A**	58PH*090−16	45,000	12.5	15.0
3837893	24ABC648A**31	CNPV*4824A**	58PH*110−20	45,000	13.0	16.0
3837894	24ABC648A**31	CNPV*4824A**	58PH*135−20	45,000	12.5	15.5
3897424	24ABC648A**31	CNPV*4824A**	58UVB080−20	44,500	12.5	15.0
3897425	24ABC648A**31	CNPV*4824A**	58UVB100−20	44,500	12.5	15.0
3897426	24ABC648A**31	CNPV*4824A**	58UVB120−20	44,500	12.5	15.0
3916515	24ABC648A**31	CNPV*4824A**	58VLR120−20	45,000	12.5	15.0
3916514	24ABC648A**31	CNPV*4824A**	58VMR120−20	45,000	12.5	15.0
4744966	24ABC648A**31	CNPV*4824A**	59*N*A100V21**20	42,000	12.7	15.5
4744967	24ABC648A**31	CNPV*4824A**	59*N*A120V24**22	42,000	12.7	15.5
4744968	24ABC648A**31	CNPV*4824A**	59*P5A100E21**16	44,500	12.5	15.2
4744969	24ABC648A**31	CNPV*4824A**	59*P5A120E24**22	44,500	12.7	15.5
4137772	24ABC648A**31	CNPV*4824A**	OVLAAB048112	44,500	12.0	14.5
4137773	24ABC648A**31	CNPV*4824A**	OVLAAB060154	45,000	12.0	15.2
3837885	24ABC648A**31	CNPV*4824A**+TDR		45,000	12.0	14.2
3837784	24ABC648A**31	CNPV*6024A**	58CV(A,X)110−20	45,500	13.0	16.0
3837785	24ABC648A**31	CNPV*6024A**	58CV(A,X)135−22	45,500	13.0	16.0
3837786	24ABC648A**31	CNPV*6024A**	58CV(A,X)155−22	45,500	13.0	16.0
4137766	24ABC648A**31	CNPV*6024A**	58HDV080−−20	45,500	12.5	15.2
4137767	24ABC648A**31	CNPV*6024A**	58HDV100−−20	45,500	12.5	15.2
3897455	24ABC648A**31	CNPV*6024A**	58ME(B,C)100−20	45,500	13.0	16.0
3897456	24ABC648A**31	CNPV*6024A**	58ME(B,C)120−20	46,000	13.0	16.0
3837781	24ABC648A**31	CNPV*6024A**	58MV(B,C)080−20	45,000	12.5	15.5
3837782	24ABC648A**31	CNPV*6024A**	58MV(B,C)100−20	45,000	12.5	15.0
3837783	24ABC648A**31	CNPV*6024A**	58MV(B,C)120−20	45,500	12.5	15.5
3837787	24ABC648A**31	CNPV*6024A**	58PH*090−16	45,500	13.0	16.0
3837788	24ABC648A**31	CNPV*6024A**	58PH*110−20	45,500	13.0	16.0
3837789	24ABC648A**31	CNPV*6024A**	58PH*135−20	45,500	13.0	16.0
3897410	24ABC648A**31	CNPV*6024A**	58UVB080−20	45,000	12.5	15.5
3897411	24ABC648A**31	CNPV*6024A**	58UVB100−20	45,000	12.5	15.0
3897412	24ABC648A**31	CNPV*6024A**	58UVB120−20	45,500	12.5	15.5
3837832	24ABC648A**31	CNPV*6024A**	58VLR120−20	45,000	13.0	16.0
4744970	24ABC648A**31	CNPV*6024A**	59*N*A100V21**20	44,500	12.7	15.5
4744971	24ABC648A**31	CNPV*6024A**	59*N*A120V24**22	44,500	13.0	16.0
4744972	24ABC648A**31	CNPV*6024A**	59*P5A100E21**16	45,000	12.7	15.5
4744973	24ABC648A**31	CNPV*6024A**	59*P5A120E24**22	45,500	13.0	16.0
4137774	24ABC648A**31	CNPV*6024A**	OVLAAB048112	45,000	12.0	15.2
4137775	24ABC648A**31	CNPV*6024A**	OVLAAB060154	46,000	12.5	15.2
3837780	24ABC648A**31	CNPV*6024A**+TDR		46,000	12.5	14.5
3916520	24ABC648A**31	CNPV*6124A**	58CV(A,X)110−20	46,500	13.0	16.0
3916521	24ABC648A**31	CNPV*6124A**	58CV(A,X)135−22	46,500	13.0	16.0
3916522	24ABC648A**31	CNPV*6124A**	58CV(A,X)155−22	46,500	13.0	16.0
4137768	24ABC648A**31	CNPV*6124A**	58HDV080−−20	46,000	13.0	16.0
4137769	24ABC648A**31	CNPV*6124A**	58HDV100−−20	46,000	13.0	16.0
3916526	24ABC648A**31	CNPV*6124A**	58ME(B,C)100−20	46,500	13.0	16.0
3916527	24ABC648A**31	CNPV*6124A**	58ME(B,C)120−20	46,500	13.0	16.0
3916517	24ABC648A**31	CNPV*6124A**	58MV(B,C)080−20	46,500	12.5	15.5
3916518	24ABC648A**31	CNPV*6124A**	58MV(B,C)100−20	46,500	12.5	15.5
3916519	24ABC648A**31	CNPV*6124A**	58MV(B,C)120−20	46,500	13.0	16.0
3916523	24ABC648A**31	CNPV*6124A**	58PH*090−16	46,500	13.0	16.0
3916524	24ABC648A**31	CNPV*6124A**	58PH*110−20	46,500	13.0	16.0
3916525	24ABC648A**31	CNPV*6124A**	58PH*135−20	46,500	13.0	16.0
3916561	24ABC648A**31	CNPV*6124A**	58UVB080−20	46,500	12.5	15.5
3916562	24ABC648A**31	CNPV*6124A**	58UVB100−20	46,500	12.5	15.5
3916563	24ABC648A**31	CNPV*6124A**	58UVB120−20	46,500	13.0	16.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3916529	24ABC648A**31	CNPV*6124A**	58VLR120−20	46,500	13.0	16.0
3916528	24ABC648A**31	CNPV*6124A**	58VMR120−20	46,500	13.0	16.0
4744974	24ABC648A**31	CNPV*6124A**	59*N*A100V21**20	45,500	13.0	16.0
4744975	24ABC648A**31	CNPV*6124A**	59*N*A120V24**22	45,500	13.2	16.5
4744976	24ABC648A**31	CNPV*6124A**	59*P5A100E21**16	45,500	13.0	16.0
4744977	24ABC648A**31	CNPV*6124A**	59*P5A120E24**22	46,000	13.2	16.5
4137776	24ABC648A**31	CNPV*6124A**	OVLAAB048112	45,500	12.5	15.2
4137777	24ABC648A**31	CNPV*6124A**	OVLAAB060154	46,500	13.0	16.0
3916516	24ABC648A**31	CNPV*6124A**+TDR		46,500	12.5	14.5
3837916	24ABC648A**31	CSPH*4812A**	58CV(A,X)090−16	45,000	12.5	15.0
3837917	24ABC648A**31	CSPH*4812A**	58CV(A,X)110−20	45,000	12.5	15.0
3837918	24ABC648A**31	CSPH*4812A**	58CV(A,X)135−22	45,000	12.5	15.5
3837919	24ABC648A**31	CSPH*4812A**	58CV(A,X)155−22	45,000	13.0	16.0
3916549	24ABC648A**31	CSPH*4812A**	58HDV080−−20	46,000	12.5	15.0
3916550	24ABC648A**31	CSPH*4812A**	58HDV100−−20	46,000	12.5	15.0
3897478	24ABC648A**31	CSPH*4812A**	58ME(B,C)080−16	45,000	12.5	15.0
3897479	24ABC648A**31	CSPH*4812A**	58ME(B,C)100−20	45,000	13.0	15.5
3897480	24ABC648A**31	CSPH*4812A**	58ME(B,C)120−20	45,000	13.0	16.0
3837913	24ABC648A**31	CSPH*4812A**	58MV(B,C)080−20	44,500	12.5	15.0
3837914	24ABC648A**31	CSPH*4812A**	58MV(B,C)100−20	45,000	12.5	15.0
3837915	24ABC648A**31	CSPH*4812A**	58MV(B,C)120−20	45,000	12.5	15.0
3837920	24ABC648A**31	CSPH*4812A**	58PH*090−16	45,000	12.5	15.0
3837921	24ABC648A**31	CSPH*4812A**	58PH*110−20	45,000	13.0	16.0
3837922	24ABC648A**31	CSPH*4812A**	58PH*135−20	45,000	12.5	15.5
3916552	24ABC648A**31	CSPH*4812A**	58VLR120−20	46,000	12.5	15.5
3916551	24ABC648A**31	CSPH*4812A**	58VMR120−20	46,000	12.5	15.0
4744992	24ABC648A**31	CSPH*4812A**	59*N*A100V21**20	44,500	12.7	15.5
4744993	24ABC648A**31	CSPH*4812A**	59*N*A120V24**22	44,500	12.7	15.5
4744994	24ABC648A**31	CSPH*4812A**	59*P5A100E21**16	44,500	12.5	15.2
4744995	24ABC648A**31	CSPH*4812A**	59*P5A120E24**22	45,000	12.7	15.5
4137784	24ABC648A**31	CSPH*4812A**	OVLAAB048112	44,500	12.0	14.5
4137785	24ABC648A**31	CSPH*4812A**	OVLAAB060154	45,500	12.5	15.2
3837912	24ABC648A**31	CSPH*4812A**+TDR		45,000	12.5	14.5
3837810	24ABC648A**31	CSPH*6012A**	58CV(A,X)090−16	45,500	13.0	16.0
3837811	24ABC648A**31	CSPH*6012A**	58CV(A,X)110−20	45,500	13.0	16.0
3837812	24ABC648A**31	CSPH*6012A**	58CV(A,X)135−22	45,500	13.0	16.0
3837813	24ABC648A**31	CSPH*6012A**	58CV(A,X)155−22	46,000	13.0	16.0
3916553	24ABC648A**31	CSPH*6012A**	58HDV080−−20	46,500	12.5	15.5
3916554	24ABC648A**31	CSPH*6012A**	58HDV100−−20	46,500	12.5	15.5
3897460	24ABC648A**31	CSPH*6012A**	58ME(B,C)080−16	46,000	12.5	15.5
3897461	24ABC648A**31	CSPH*6012A**	58ME(B,C)100−20	46,000	13.0	16.0
3897462	24ABC648A**31	CSPH*6012A**	58ME(B,C)120−20	46,000	13.0	16.0
3837807	24ABC648A**31	CSPH*6012A**	58MV(B,C)080−20	45,000	12.5	15.5
3837808	24ABC648A**31	CSPH*6012A**	58MV(B,C)100−20	45,500	12.5	15.5
3837809	24ABC648A**31	CSPH*6012A**	58MV(B,C)120−20	45,500	13.0	16.0
3837814	24ABC648A**31	CSPH*6012A**	58PH*090−16	46,000	13.0	16.0
3837815	24ABC648A**31	CSPH*6012A**	58PH*110−20	46,000	13.0	16.0
3837816	24ABC648A**31	CSPH*6012A**	58PH*135−20	46,000	13.0	16.0
3837835	24ABC648A**31	CSPH*6012A**	58VLR120−20	45,000	13.0	16.0
3837834	24ABC648A**31	CSPH*6012A**	58VMR120−20	45,000	13.0	16.0
4744996	24ABC648A**31	CSPH*6012A**	59*N*A100V21**20	45,000	13.0	16.0
4744997	24ABC648A**31	CSPH*6012A**	59*N*A120V24**22	45,000	13.0	16.0
4744998	24ABC648A**31	CSPH*6012A**	59*P5A080E17**16	45,000	12.7	15.5
4744999	24ABC648A**31	CSPH*6012A**	59*P5A100E21**16	45,500	12.7	15.5
4745000	24ABC648A**31	CSPH*6012A**	59*P5A120E24**22	45,500	13.0	16.0
4137786	24ABC648A**31	CSPH*6012A**	OVLAAB048112	45,500	12.5	15.2
4137787	24ABC648A**31	CSPH*6012A**	OVLAAB060154	46,000	13.0	16.0
3837806	24ABC648A**31	CSPH*6012A**+TDR		46,000	12.5	14.5
3916555	24ABC648A**31	FB4CNF048+TXV		45,500	12.5	15.0
3916556	24ABC648A**31	FB4CNF060		46,500	12.5	15.5
3837821	24ABC648A**31	FE4AN(B,F)005+UI		45,500	13.0	16.0
3837822	24ABC648A**31	FE4ANB006+UI		46,000	13.0	16.0
3919868	24ABC648A**31	FV4CN(B,F)005		45,500	13.0	16.0
3919869	24ABC648A**31	FV4CNB006		46,000	13.0	16.0
3916559	24ABC648A**31	FX4DN(B,F)049		46,500	13.0	16.0
3916560	24ABC648A**31	FX4DN(B,F)061		47,000	13.0	16.0
3916558	24ABC648A**31	FY5BNB060		46,500	12.0	14.5
3916557	24ABC648A**31	FY5BNF048+TXV		46,000	12.5	15.0
3837928	24ABC649A**30	†CAP**6024A**+TDR		48,000	11.7	14.0
3837930	24ABC649A**30	CAP**4817A**	58CV(A,X)090−16	46,500	12.0	14.0
3838026	24ABC649A**30	CAP**4817A**	58ME(B,C)080−16	47,000	12.0	14.5
3837999	24ABC649A**30	CAP**4817A**	58PH*070−16	46,000	11.2	13.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3837929	24ABC649A**30	CAP**4817A**+TDR		46,500	11.7	13.5
3837934	24ABC649A**30	CAP**4821A**	58CV(A,X)110−20	46,500	12.0	14.5
3838027	24ABC649A**30	CAP**4821A**	58ME(B,C)100−20	47,000	12.0	14.5
3837932	24ABC649A**30	CAP**4821A**	58MV(B,C)080−20	46,500	11.7	14.0
3837933	24ABC649A**30	CAP**4821A**	58MV(B,C)100−20	46,500	12.0	14.0
3838000	24ABC649A**30	CAP**4821A**	58PH*090−16	47,000	12.0	14.5
3838001	24ABC649A**30	CAP**4821A**	58PH*110−20	47,000	12.2	14.5
4141778	24ABC649A**30	CAP**4821A**	58UVB080−20	46,500	11.7	14.0
4141779	24ABC649A**30	CAP**4821A**	58UVB100−20	46,500	12.0	14.0
4137789	24ABC649A**30	CAP**4821A**	58VLR120−20	46,500	12.0	14.0
4137788	24ABC649A**30	CAP**4821A**	58VMR120−20	46,500	12.0	14.0
4745029	24ABC649A**30	CAP**4821A**	59*N*A100V21**20	46,000	11.8	14.2
4745030	24ABC649A**30	CAP**4821A**	59*P5A100E21**16	46,500	11.8	14.2
3837931	24ABC649A**30	CAP**4821A**+TDR		47,500	11.5	13.5
4137806	24ABC649A**30	CAP**4823A**	58HDV080−−20	47,000	11.5	14.0
4745041	24ABC649A**30	CAP**4823A**	59*N*A100V21**20	46,000	11.8	14.2
4745042	24ABC649A**30	CAP**4823A**	59*N*A120V24**22	46,000	12.0	14.5
4745043	24ABC649A**30	CAP**4823A**	59*P5A100E21**16	46,500	11.8	14.2
4745044	24ABC649A**30	CAP**4823A**	59*P5A120E24**22	46,500	12.0	14.5
3838049	24ABC649A**30	CAP**4823A**+TDR		47,500	11.5	13.5
3837937	24ABC649A**30	CAP**4824A**	58CV(A,X)135−22	47,000	12.2	14.5
3837938	24ABC649A**30	CAP**4824A**	58CV(A,X)155−22	47,000	12.2	14.5
4137804	24ABC649A**30	CAP**4824A**	58HDV100−−20	46,500	12.0	14.0
3838028	24ABC649A**30	CAP**4824A**	58ME(B,C)120−20	47,000	12.0	14.5
3837936	24ABC649A**30	CAP**4824A**	58MV(B,C)120−20	46,500	12.0	14.0
3838002	24ABC649A**30	CAP**4824A**	58PH*135−20	47,000	12.2	14.5
4141780	24ABC649A**30	CAP**4824A**	58UVB120−20	46,500	12.0	14.0
4745031	24ABC649A**30	CAP**4824A**	59*N*A100V21**20	46,000	11.8	14.2
4745032	24ABC649A**30	CAP**4824A**	59*N*A120V24**22	46,000	12.0	14.5
4745033	24ABC649A**30	CAP**4824A**	59*P5A100E21**16	46,500	11.8	14.2
4745034	24ABC649A**30	CAP**4824A**	59*P5A120E24**22	46,500	12.0	14.5
3837935	24ABC649A**30	CAP**4824A**+TDR		47,500	11.5	13.5
3837942	24ABC649A**30	CAP**6021A**	58CV(A,X)110−20	47,500	12.5	15.2
3838029	24ABC649A**30	CAP**6021A**	58ME(B,C)100−20	48,000	12.5	15.2
3837940	24ABC649A**30	CAP**6021A**	58MV(B,C)080−20	47,500	12.2	14.5
3837941	24ABC649A**30	CAP**6021A**	58MV(B,C)100−20	47,500	12.2	14.5
3838003	24ABC649A**30	CAP**6021A**	58PH*090−16	47,500	12.2	14.5
3838004	24ABC649A**30	CAP**6021A**	58PH*110−20	47,500	12.5	15.2
4141781	24ABC649A**30	CAP**6021A**	58UVB080−20	47,500	12.2	14.5
4141782	24ABC649A**30	CAP**6021A**	58UVB100−20	47,500	12.2	14.5
4137791	24ABC649A**30	CAP**6021A**	58VLR120−20	47,500	12.0	14.5
4137790	24ABC649A**30	CAP**6021A**	58VMR120−20	47,500	12.0	14.5
4745035	24ABC649A**30	CAP**6021A**	59*N*A100V21**20	47,000	12.0	14.5
4745036	24ABC649A**30	CAP**6021A**	59*P5A100E21**16	47,500	12.0	14.5
3837939	24ABC649A**30	CAP**6021A**+TDR		48,000	11.7	14.0
3837944	24ABC649A**30	CAP**6024A**	58CV(A,X)135−22	48,000	12.5	15.2
3837945	24ABC649A**30	CAP**6024A**	58CV(A,X)155−22	48,000	12.5	15.2
4137805	24ABC649A**30	CAP**6024A**	58HDV100−−20	48,000	12.0	14.5
3838030	24ABC649A**30	CAP**6024A**	58ME(B,C)120−20	48,000	12.5	15.2
3837943	24ABC649A**30	CAP**6024A**	58MV(B,C)120−20	47,500	12.2	14.5
3838005	24ABC649A**30	CAP**6024A**	58PH*135−20	48,000	12.2	15.0
4141783	24ABC649A**30	CAP**6024A**	58UVB120−20	47,500	12.2	14.5
4745037	24ABC649A**30	CAP**6024A**	59*N*A100V21**20	47,000	12.0	14.5
4745038	24ABC649A**30	CAP**6024A**	59*N*A120V24**22	47,000	12.5	15.0
4745039	24ABC649A**30	CAP**6024A**	59*P5A100E21**16	47,500	12.0	14.5
4745040	24ABC649A**30	CAP**6024A**	59*P5A120E24**22	48,000	12.4	15.0
4137807	24ABC649A**30	CAP**6025A**	58HDV100−−20	48,000	12.0	14.5
4745045	24ABC649A**30	CAP**6025A**	59*N*A100V21**20	47,000	12.0	14.5
4745046	24ABC649A**30	CAP**6025A**	59*N*A120V24**22	47,000	12.5	15.0
4745047	24ABC649A**30	CAP**6025A**	59*P5A100E21**16	47,500	12.0	14.5
4745048	24ABC649A**30	CAP**6025A**	59*P5A120E24**22	48,000	12.4	15.0
3838050	24ABC649A**30	CAP**6025A**+TDR		48,000	11.7	14.0
3837962	24ABC649A**30	CNPH*4821A**	58CV(A,X)090−16	47,000	12.0	14.5
3837963	24ABC649A**30	CNPH*4821A**	58CV(A,X)110−20	47,000	12.2	14.5
3837964	24ABC649A**30	CNPH*4821A**	58CV(A,X)135−22	47,000	12.2	14.5
3837965	24ABC649A**30	CNPH*4821A**	58CV(A,X)155−22	47,000	12.5	15.0
4137811	24ABC649A**30	CNPH*4821A**	58HDV080−−20	47,000	11.5	14.0
4137812	24ABC649A**30	CNPH*4821A**	58HDV100−−20	47,000	12.0	14.0
3838034	24ABC649A**30	CNPH*4821A**	58ME(B,C)080−16	47,000	12.0	14.5
3838035	24ABC649A**30	CNPH*4821A**	58ME(B,C)100−20	47,000	12.0	14.5
3838036	24ABC649A**30	CNPH*4821A**	58ME(B,C)120−20	47,500	12.0	14.5
3837959	24ABC649A**30	CNPH*4821A**	58MV(B,C)080−20	46,500	12.0	14.0
3837960	24ABC649A**30	CNPH*4821A**	58MV(B,C)100−20	46,500	12.0	14.0

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3837961	24ABC649A**30	CNPH*4821A**	58MV(B,C)120−20	46,500	12.0	14.5
3838010	24ABC649A**30	CNPH*4821A**	58PH*070−16	46,500	11.2	13.5
3838011	24ABC649A**30	CNPH*4821A**	58PH*090−16	47,000	12.0	14.5
3838012	24ABC649A**30	CNPH*4821A**	58PH*110−20	47,000	12.2	14.5
3838013	24ABC649A**30	CNPH*4821A**	58PH*135−20	47,000	12.2	14.5
4137795	24ABC649A**30	CNPH*4821A**	58VLR120−20	46,500	12.0	14.5
4137794	24ABC649A**30	CNPH*4821A**	58VMR120−20	46,500	12.0	14.0
4745064	24ABC649A**30	CNPH*4821A**	59*N*A100V21**20	46,500	12.0	14.5
4745065	24ABC649A**30	CNPH*4821A**	59*N*A120V24**22	46,500	12.0	14.5
4745066	24ABC649A**30	CNPH*4821A**	59*P5A080E17**16	46,500	11.5	14.0
4745067	24ABC649A**30	CNPH*4821A**	59*P5A100E21**16	46,500	11.8	14.2
4745068	24ABC649A**30	CNPH*4821A**	59*P5A120E24**22	47,000	12.0	14.5
4137821	24ABC649A**30	CNPH*4821A**	OVLAAB060154	47,500	11.5	14.0
3837958	24ABC649A**30	CNPH*4821A**+TDR		47,500	11.5	13.5
3837970	24ABC649A**30	CNPH*6024A**	58CV(A,X)090−16	47,500	12.2	14.5
3837971	24ABC649A**30	CNPH*6024A**	58CV(A,X)110−20	47,500	12.2	14.5
3837972	24ABC649A**30	CNPH*6024A**	58CV(A,X)135−22	48,000	12.5	15.0
3837973	24ABC649A**30	CNPH*6024A**	58CV(A,X)155−22	48,000	12.5	15.0
4137813	24ABC649A**30	CNPH*6024A**	58HDV080−−20	48,000	12.0	14.5
4137814	24ABC649A**30	CNPH*6024A**	58HDV100−−20	47,500	12.0	14.5
3838037	24ABC649A**30	CNPH*6024A**	58ME(B,C)080−16	47,500	12.0	14.5
3838038	24ABC649A**30	CNPH*6024A**	58ME(B,C)100−20	48,000	12.5	15.0
3838039	24ABC649A**30	CNPH*6024A**	58ME(B,C)120−20	48,000	12.5	14.0
3837967	24ABC649A**30	CNPH*6024A**	58MV(B,C)080−20	47,500	12.2	14.5
3837968	24ABC649A**30	CNPH*6024A**	58MV(B,C)100−20	47,500	12.2	14.5
3837969	24ABC649A**30	CNPH*6024A**	58MV(B,C)120−20	47,500	12.2	14.5
3838014	24ABC649A**30	CNPH*6024A**	58PH*070−16	47,500	11.5	13.5
3838015	24ABC649A**30	CNPH*6024A**	58PH*090−16	48,000	12.2	14.5
3838016	24ABC649A**30	CNPH*6024A**	58PH*110−20	48,000	12.5	15.0
3838017	24ABC649A**30	CNPH*6024A**	58PH*135−20	48,000	12.2	15.0
4137797	24ABC649A**30	CNPH*6024A**	58VLR120−20	47,500	12.0	14.5
4137796	24ABC649A**30	CNPH*6024A**	58VMR120−20	47,500	12.0	14.5
4745069	24ABC649A**30	CNPH*6024A**	59*N*A100V21**20	47,000	12.0	14.5
4745070	24ABC649A**30	CNPH*6024A**	59*N*A120V24**22	47,000	12.5	15.0
4745071	24ABC649A**30	CNPH*6024A**	59*P5A080E17**16	47,500	11.8	14.2
4745072	24ABC649A**30	CNPH*6024A**	59*P5A100E21**16	47,500	12.0	14.5
4745073	24ABC649A**30	CNPH*6024A**	59*P5A120E24**22	48,000	12.4	15.0
4137822	24ABC649A**30	CNPH*6024A**	OVLAAB060154	48,000	12.0	14.5
3837966	24ABC649A**30	CNPH*6024A**+TDR		48,000	11.7	14.0
4561882	24ABC649A**30	CNPH*6124A**	58CV(A,X)110−20	47,500	12.2	14.5
4561883	24ABC649A**30	CNPH*6124A**	58CV(A,X)135−22	48,000	12.2	15.0
4561884	24ABC649A**30	CNPH*6124A**	58CV(A,X)155−22	48,000	12.5	15.0
4137815	24ABC649A**30	CNPH*6124A**	58HDV080−−20	48,000	12.0	14.5
4137816	24ABC649A**30	CNPH*6124A**	58HDV100−−20	48,000	12.0	14.5
4561887	24ABC649A**30	CNPH*6124A**	58MEC100−20	48,000	12.2	15.0
4561888	24ABC649A**30	CNPH*6124A**	58MEC120−20	48,000	12.2	15.0
4561881	24ABC649A**30	CNPH*6124A**	58MV(B,C)120−20	47,500	12.2	14.5
4561885	24ABC649A**30	CNPH*6124A**	58PH*110−20	48,000	12.2	15.0
4561886	24ABC649A**30	CNPH*6124A**	58PH*135−20	48,000	12.2	14.5
4137799	24ABC649A**30	CNPH*6124A**	58VLR120−20	47,500	12.0	14.5
4137798	24ABC649A**30	CNPH*6124A**	58VMR120−20	47,500	12.0	14.5
4745074	24ABC649A**30	CNPH*6124A**	59*N*A100V21**20	47,500	12.0	14.5
4745075	24ABC649A**30	CNPH*6124A**	59*N*A120V24**22	47,500	12.5	15.0
4745076	24ABC649A**30	CNPH*6124A**	59*P5A100E21**16	47,500	12.0	14.5
4745077	24ABC649A**30	CNPH*6124A**	59*P5A120E24**22	48,000	12.4	15.0
4137823	24ABC649A**30	CNPH*6124A**	OVLAAB060154	48,000	12.0	14.5
4561880	24ABC649A**30	CNPH*6124A**+TDR		48,000	11.7	14.0
3837949	24ABC649A**30	CNPV*4821A**	58CV(A,X)110−20	47,000	12.2	14.5
3838031	24ABC649A**30	CNPV*4821A**	58ME(B,C)100−20	47,000	12.0	14.5
3837947	24ABC649A**30	CNPV*4821A**	58MV(B,C)080−20	46,500	12.0	14.0
3837948	24ABC649A**30	CNPV*4821A**	58MV(B,C)100−20	46,500	12.0	14.0
3838006	24ABC649A**30	CNPV*4821A**	58PH*090−16	47,000	12.0	14.5
3838007	24ABC649A**30	CNPV*4821A**	58PH*110−20	47,000	12.2	14.5
4141784	24ABC649A**30	CNPV*4821A**	58UVB080−20	46,500	12.0	14.0
4141785	24ABC649A**30	CNPV*4821A**	58UVB100−20	46,500	12.0	14.0
4137793	24ABC649A**30	CNPV*4821A**	58VLR120−20	46,500	12.0	14.5
4137792	24ABC649A**30	CNPV*4821A**	58VMR120−20	46,500	12.0	14.0
4745049	24ABC649A**30	CNPV*4821A**	59*N*A100V21**20	46,500	12.0	14.5
4745050	24ABC649A**30	CNPV*4821A**	59*P5A080E17**16	46,500	11.5	14.0
4745051	24ABC649A**30	CNPV*4821A**	59*P5A100E21**16	46,500	11.8	14.2
3837946	24ABC649A**30	CNPV*4821A**+TDR		47,500	11.5	13.5
3837952	24ABC649A**30	CNPV*4824A**	58CV(A,X)135−22	47,000	12.2	14.5
3837953	24ABC649A**30	CNPV*4824A**	58CV(A,X)155−22	47,000	12.5	15.0

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
4137808	24ABC649A**30	CNPV*4824A**	58HDV100−−20	47,000	12.0	14.0
3838032	24ABC649A**30	CNPV*4824A**	58ME(B,C)120−20	47,000	12.0	14.5
3837951	24ABC649A**30	CNPV*4824A**	58MV(B,C)120−20	46,500	12.0	14.5
3838008	24ABC649A**30	CNPV*4824A**	58PH*135−20	47,000	12.2	14.5
4141786	24ABC649A**30	CNPV*4824A**	58UVB120−20	46,500	12.0	14.5
4745052	24ABC649A**30	CNPV*4824A**	59*N*A100V21**20	46,500	12.0	14.5
4745053	24ABC649A**30	CNPV*4824A**	59*N*A120V24**22	46,500	12.0	14.5
4745054	24ABC649A**30	CNPV*4824A**	59*P5A100E21**16	46,500	11.8	14.2
4745055	24ABC649A**30	CNPV*4824A**	59*P5A120E24**22	47,000	12.0	14.5
3837950	24ABC649A**30	CNPV*4824A**+TDR		47,500	11.5	13.5
3838047	24ABC649A**30	CNPV*6024A**	58CV(A,X)110−20	47,500	12.5	15.0
3837956	24ABC649A**30	CNPV*6024A**	58CV(A,X)135−22	48,000	12.5	15.0
3837957	24ABC649A**30	CNPV*6024A**	58CV(A,X)155−22	48,000	12.5	15.0
4137809	24ABC649A**30	CNPV*6024A**	58HDV100−−20	47,500	12.0	14.5
3838046	24ABC649A**30	CNPV*6024A**	58ME(B,C)100−20	48,000	12.5	15.0
3838033	24ABC649A**30	CNPV*6024A**	58ME(B,C)120−20	48,000	12.5	15.0
3837955	24ABC649A**30	CNPV*6024A**	58MV(B,C)120−20	47,500	12.2	14.5
3838048	24ABC649A**30	CNPV*6024A**	58PH*110−20	48,000	12.5	15.0
3838009	24ABC649A**30	CNPV*6024A**	58PH*135−20	48,000	12.2	15.0
4141787	24ABC649A**30	CNPV*6024A**	58UVB120−20	47,500	12.2	14.5
4745056	24ABC649A**30	CNPV*6024A**	59*N*A100V21**20	47,000	12.0	14.5
4745057	24ABC649A**30	CNPV*6024A**	59*N*A120V24**22	47,000	12.5	15.0
4745058	24ABC649A**30	CNPV*6024A**	59*P5A100E21**16	47,500	12.0	14.5
4745059	24ABC649A**30	CNPV*6024A**	59*P5A120E24**22	48,000	12.4	15.0
3837954	24ABC649A**30	CNPV*6024A**+TDR		48,000	11.7	14.0
4561873	24ABC649A**30	CNPV*6124A**	58CV(A,X)110−20	48,000	12.2	15.0
4561874	24ABC649A**30	CNPV*6124A**	58CV(A,X)135−22	48,000	12.5	15.2
4561875	24ABC649A**30	CNPV*6124A**	58CV(A,X)155−22	48,000	12.7	15.0
4137810	24ABC649A**30	CNPV*6124A**	58HDV100−−20	48,000	12.0	14.5
4561878	24ABC649A**30	CNPV*6124A**	58MEC100−20	48,000	12.5	15.0
4561879	24ABC649A**30	CNPV*6124A**	58MEC120−20	48,000	12.5	15.0
4561872	24ABC649A**30	CNPV*6124A**	58MV(B,C)120−20	48,000	12.2	15.0
4561876	24ABC649A**30	CNPV*6124A**	58PH*110−20	48,000	12.5	15.0
4561877	24ABC649A**30	CNPV*6124A**	58PH*135−20	48,000	12.2	15.0
4745060	24ABC649A**30	CNPV*6124A**	59*N*A100V21**20	47,500	12.4	15.0
4745061	24ABC649A**30	CNPV*6124A**	59*N*A120V24**22	47,500	12.5	15.2
4745062	24ABC649A**30	CNPV*6124A**	59*P5A100E21**16	48,000	12.0	14.5
4745063	24ABC649A**30	CNPV*6124A**	59*P5A120E24**22	48,500	12.5	15.2
4561871	24ABC649A**30	CNPV*6124A**+TDR		48,000	11.7	14.0
3837979	24ABC649A**30	CSPH*4812A**	58CV(A,X)090−16	47,000	12.0	14.5
3837980	24ABC649A**30	CSPH*4812A**	58CV(A,X)110−20	47,000	12.2	14.5
3837981	24ABC649A**30	CSPH*4812A**	58CV(A,X)135−22	47,500	12.2	14.5
3837982	24ABC649A**30	CSPH*4812A**	58CV(A,X)155−22	47,000	12.2	14.5
4137817	24ABC649A**30	CSPH*4812A**	58HDV080−−20	47,500	11.5	14.0
4137818	24ABC649A**30	CSPH*4812A**	58HDV100−−20	47,000	12.0	14.0
3838040	24ABC649A**30	CSPH*4812A**	58ME(B,C)080−16	47,000	12.0	14.5
3838041	24ABC649A**30	CSPH*4812A**	58ME(B,C)100−20	47,000	12.0	14.5
3838042	24ABC649A**30	CSPH*4812A**	58ME(B,C)120−20	47,000	12.0	14.5
3837976	24ABC649A**30	CSPH*4812A**	58MV(B,C)080−20	46,500	11.7	14.0
3837977	24ABC649A**30	CSPH*4812A**	58MV(B,C)100−20	46,500	12.0	14.0
3837978	24ABC649A**30	CSPH*4812A**	58MV(B,C)120−20	47,000	12.0	14.5
3838018	24ABC649A**30	CSPH*4812A**	58PH*070−16	46,500	11.2	13.5
3838019	24ABC649A**30	CSPH*4812A**	58PH*090−16	47,000	12.0	14.5
3838020	24ABC649A**30	CSPH*4812A**	58PH*110−20	47,000	12.2	14.5
3838021	24ABC649A**30	CSPH*4812A**	58PH*135−20	47,000	12.2	14.5
4137801	24ABC649A**30	CSPH*4812A**	58VLR120−20	47,000	12.0	14.5
4137800	24ABC649A**30	CSPH*4812A**	58VMR120−20	47,000	12.0	14.0
4745078	24ABC649A**30	CSPH*4812A**	59*N*A100V21**20	46,500	12.0	14.5
4745079	24ABC649A**30	CSPH*4812A**	59*N*A120V24**22	46,500	12.0	14.5
4745080	24ABC649A**30	CSPH*4812A**	59*P5A100E21**16	47,000	11.8	14.2
4745081	24ABC649A**30	CSPH*4812A**	59*P5A120E24**22	47,000	12.0	14.5
4137824	24ABC649A**30	CSPH*4812A**	OVLAAB060154	48,000	11.5	14.0
3837975	24ABC649A**30	CSPH*4812A**+TDR		47,500	11.7	13.5
3837987	24ABC649A**30	CSPH*6012A**	58CV(A,X)090−16	48,000	12.2	14.5
3837988	24ABC649A**30	CSPH*6012A**	58CV(A,X)110−20	48,000	12.5	15.0
3837989	24ABC649A**30	CSPH*6012A**	58CV(A,X)135−22	48,000	12.5	15.0
3837990	24ABC649A**30	CSPH*6012A**	58CV(A,X)155−22	48,000	12.5	15.0
4137819	24ABC649A**30	CSPH*6012A**	58HDV080−−20	48,000	12.0	14.5
4137820	24ABC649A**30	CSPH*6012A**	58HDV100−−20	48,000	12.0	14.5
3838043	24ABC649A**30	CSPH*6012A**	58ME(B,C)080−16	48,000	12.0	14.5
3838044	24ABC649A**30	CSPH*6012A**	58ME(B,C)100−20	48,000	12.5	15.0
3838045	24ABC649A**30	CSPH*6012A**	58ME(B,C)120−20	48,000	12.5	15.0
3837984	24ABC649A**30	CSPH*6012A**	58MV(B,C)080−20	47,500	12.2	14.5

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AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3837985	24ABC649A**30	CSPH*6012A**	58MV(B,C)100−20	48,000	12.2	14.5
3837986	24ABC649A**30	CSPH*6012A**	58MV(B,C)120−20	48,000	12.2	14.5
3838022	24ABC649A**30	CSPH*6012A**	58PH*070−16	47,500	11.5	13.5
3838023	24ABC649A**30	CSPH*6012A**	58PH*090−16	48,000	12.2	14.5
3838024	24ABC649A**30	CSPH*6012A**	58PH*110−20	48,000	12.5	15.0
3838025	24ABC649A**30	CSPH*6012A**	58PH*135−20	48,000	12.2	15.0
4137803	24ABC649A**30	CSPH*6012A**	58VLR120−20	47,500	12.5	15.0
4137802	24ABC649A**30	CSPH*6012A**	58VMR120−20	47,500	12.0	14.5
4745082	24ABC649A**30	CSPH*6012A**	59*N*A100V21**20	47,500	12.0	14.5
4745083	24ABC649A**30	CSPH*6012A**	59*N*A120V24**22	47,500	12.5	15.2
4745084	24ABC649A**30	CSPH*6012A**	59*P5A080E17**16	47,500	11.8	14.2
4745085	24ABC649A**30	CSPH*6012A**	59*P5A100E21**16	47,500	12.0	14.5
4745086	24ABC649A**30	CSPH*6012A**	59*P5A120E24**22	48,000	12.5	15.0
4137826	24ABC649A**30	CSPH*6012A**	OVLAAB048112	48,000	11.5	14.0
4137825	24ABC649A**30	CSPH*6012A**	OVLAAB060154	49,000	12.0	14.5
3837983	24ABC649A**30	CSPH*6012A**+TDR		48,000	11.7	14.0
3837995	24ABC649A**30	FE4AN(B,F)005+UI		48,000	12.5	15.0
3837996	24ABC649A**30	FE4ANB006+UI		48,000	13.0	15.5
3919870	24ABC649A**30	FV4CN(B,F)005		48,000	12.5	15.0
3919871	24ABC649A**30	FV4CNB006		48,000	13.0	15.5
3631918	24ABC660A**30	†CNPV*6124A**+TDR		56,000	12.5	15.0
3630660	24ABC660A**30	CAP**6021A**	58CV(A,X)110−20	54,000	12.5	15.2
3630711	24ABC660A**30	CAP**6021A**	58CV(A,X)135−22	54,500	12.5	15.5
3630762	24ABC660A**30	CAP**6021A**	58CV(A,X)155−22	54,500	13.0	16.0
3631103	24ABC660A**30	CAP**6021A**	58ME(B,C)100−20	54,000	12.5	15.5
3631131	24ABC660A**30	CAP**6021A**	58ME(B,C)120−20	54,000	13.0	16.0
3631607	24ABC660A**30	CAP**6021A**	58PH*090−16	54,000	12.5	15.5
3631659	24ABC660A**30	CAP**6021A**	58PH*110−20	54,000	13.0	16.0
3631687	24ABC660A**30	CAP**6021A**	58PH*135−20	54,000	12.5	15.5
3631919	24ABC660A**30	CAP**6021A**+TDR		54,000	12.5	15.0
3630661	24ABC660A**30	CAP**6024A**	58CV(A,X)110−20	54,000	12.5	15.2
3630712	24ABC660A**30	CAP**6024A**	58CV(A,X)135−22	54,000	13.0	16.0
3630763	24ABC660A**30	CAP**6024A**	58CV(A,X)155−22	54,500	13.0	16.0
3631104	24ABC660A**30	CAP**6024A**	58ME(B,C)100−20	54,000	13.0	16.0
3631132	24ABC660A**30	CAP**6024A**	58ME(B,C)120−20	54,000	13.0	16.0
3631608	24ABC660A**30	CAP**6024A**	58PH*090−16	54,000	12.5	15.5
3631660	24ABC660A**30	CAP**6024A**	58PH*110−20	54,000	13.0	16.0
3631688	24ABC660A**30	CAP**6024A**	58PH*135−20	54,000	12.5	15.5
3631694	24ABC660A**30	CAP**6024A**	58VLR120−20	54,000	13.0	15.2
4745001	24ABC660A**30	CAP**6024A**	59*N*A120V24**22	54,000	12.7	15.5
4745002	24ABC660A**30	CAP**6024A**	59*P5A120E24**22	54,000	12.7	15.5
3631920	24ABC660A**30	CAP**6024A**+TDR		55,000	12.5	15.0
4745003	24ABC660A**30	CAP**6025A**	59*N*A120V24**22	54,000	12.7	15.5
4745004	24ABC660A**30	CAP**6025A**	59*P5A120E24**22	54,000	12.7	15.5
3631925	24ABC660A**30	CAP**6025A**+TDR		55,000	12.5	15.0
3630663	24ABC660A**30	CNPH*6024A**	58CV(A,X)110−20	54,000	12.5	15.3
3630714	24ABC660A**30	CNPH*6024A**	58CV(A,X)135−22	54,000	13.0	16.0
3630765	24ABC660A**30	CNPH*6024A**	58CV(A,X)155−22	54,500	13.0	16.0
3631056	24ABC660A**30	CNPH*6024A**	58ME(B,C)080−16	54,000	12.5	15.2
3631106	24ABC660A**30	CNPH*6024A**	58ME(B,C)100−20	54,000	12.5	15.5
3631134	24ABC660A**30	CNPH*6024A**	58ME(B,C)120−20	54,500	13.0	16.0
3631610	24ABC660A**30	CNPH*6024A**	58PH*090−16	54,000	12.5	15.3
3631662	24ABC660A**30	CNPH*6024A**	58PH*110−20	54,000	12.5	15.5
3631690	24ABC660A**30	CNPH*6024A**	58PH*135−20	54,000	12.5	15.5
3631696	24ABC660A**30	CNPH*6024A**	58VLR120−20	54,000	12.5	15.2
4745009	24ABC660A**30	CNPH*6024A**	59*N*A120V24**22	54,000	12.7	15.5
4745010	24ABC660A**30	CNPH*6024A**	59*P5A120E24**22	54,000	12.7	15.5
3631922	24ABC660A**30	CNPH*6024A**+TDR		55,000	12.5	14.5
3630665	24ABC660A**30	CNPH*6124A**	58CV(A,X)110−20	54,000	12.5	15.2
3630716	24ABC660A**30	CNPH*6124A**	58CV(A,X)135−22	54,500	13.0	16.0
3630767	24ABC660A**30	CNPH*6124A**	58CV(A,X)155−22	54,500	13.0	16.0
3631108	24ABC660A**30	CNPH*6124A**	58ME(B,C)100−20	54,000	13.0	16.0
3631612	24ABC660A**30	CNPH*6124A**	58PH*090−16	54,000	12.5	15.5
3631664	24ABC660A**30	CNPH*6124A**	58PH*110−20	55,000	13.0	16.0
3631692	24ABC660A**30	CNPH*6124A**	58PH*135−20	54,000	13.0	16.0
4745011	24ABC660A**30	CNPH*6124A**	59*N*A120V24**22	54,000	12.7	15.5
4745012	24ABC660A**30	CNPH*6124A**	59*P5A120E24**22	54,000	12.7	15.5
3631924	24ABC660A**30	CNPH*6124A**+TDR		55,000	12.5	15.0
3630662	24ABC660A**30	CNPV*6024A**	58CV(A,X)110−20	54,000	12.5	15.2
3630713	24ABC660A**30	CNPV*6024A**	58CV(A,X)135−22	54,000	13.0	16.0
3630764	24ABC660A**30	CNPV*6024A**	58CV(A,X)155−22	54,500	13.0	16.0
3631105	24ABC660A**30	CNPV*6024A**	58ME(B,C)100−20	54,000	12.5	15.5

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3631133	24ABC660A**30	CNPV*6024A**	58ME(B,C)120−20	54,000	13.0	16.0
3631609	24ABC660A**30	CNPV*6024A**	58PH*090−16	54,000	12.5	15.3
3631661	24ABC660A**30	CNPV*6024A**	58PH*110−20	54,000	13.0	15.5
3631689	24ABC660A**30	CNPV*6024A**	58PH*135−20	54,000	12.5	15.5
3631695	24ABC660A**30	CNPV*6024A**	58VLR120−20	54,000	12.5	15.2
4745005	24ABC660A**30	CNPV*6024A**	59*N*A120V24**22	54,000	12.7	15.5
4745006	24ABC660A**30	CNPV*6024A**	59*P5A120E24**22	54,000	12.7	15.5
3631921	24ABC660A**30	CNPV*6024A**+TDR		55,000	12.5	14.5
3630659	24ABC660A**30	CNPV*6124A**	58CV(A,X)110−20	55,000	13.0	16.0
3630710	24ABC660A**30	CNPV*6124A**	58CV(A,X)135−22	55,000	13.0	16.0
3630761	24ABC660A**30	CNPV*6124A**	58CV(A,X)155−22	55,500	13.0	16.0
3631102	24ABC660A**30	CNPV*6124A**	58ME(B,C)100−20	55,000	13.0	16.0
3631130	24ABC660A**30	CNPV*6124A**	58ME(B,C)120−20	55,000	13.0	16.0
3631427	24ABC660A**30	CNPV*6124A**	58MV(B,C)120−20	55,000	12.5	15.5
3631606	24ABC660A**30	CNPV*6124A**	58PH*090−16	55,000	13.0	16.0
3631658	24ABC660A**30	CNPV*6124A**	58PH*110−20	55,000	13.0	16.0
3631686	24ABC660A**30	CNPV*6124A**	58PH*135−20	55,000	13.0	16.0
3632218	24ABC660A**30	CNPV*6124A**	58UVB120−20	55,000	12.5	15.5
3631693	24ABC660A**30	CNPV*6124A**	58VLR120−20	55,000	12.5	15.2
3631698	24ABC660A**30	CNPV*6124A**	58VMR120−20	55,000	12.5	15.0
4745007	24ABC660A**30	CNPV*6124A**	59*N*A120V24**22	54,500	13.0	16.0
4745008	24ABC660A**30	CNPV*6124A**	59*P5A120E24**22	54,500	13.0	16.0
3630664	24ABC660A**30	CSPH*6012A**	58CV(A,X)110−20	54,000	12.5	15.5
3630715	24ABC660A**30	CSPH*6012A**	58CV(A,X)135−22	54,500	13.0	16.0
3630766	24ABC660A**30	CSPH*6012A**	58CV(A,X)155−22	55,000	13.0	16.0
3631057	24ABC660A**30	CSPH*6012A**	58ME(B,C)080−16	54,000	12.5	15.2
3631107	24ABC660A**30	CSPH*6012A**	58ME(B,C)100−20	54,000	13.0	16.0
3631135	24ABC660A**30	CSPH*6012A**	58ME(B,C)120−20	54,500	13.0	16.0
3631428	24ABC660A**30	CSPH*6012A**	58MV(B,C)120−20	54,000	12.5	15.2
3631611	24ABC660A**30	CSPH*6012A**	58PH*090−16	54,000	12.5	15.5
3631663	24ABC660A**30	CSPH*6012A**	58PH*110−20	55,000	13.0	16.0
3631691	24ABC660A**30	CSPH*6012A**	58PH*135−20	54,500	13.0	16.0
3631697	24ABC660A**30	CSPH*6012A**	58VLR120−20	54,000	12.5	15.2
4745013	24ABC660A**30	CSPH*6012A**	59*N*A120V24**22	54,000	13.0	16.0
4745014	24ABC660A**30	CSPH*6012A**	59*P5A120E24**22	54,500	13.0	16.0
3631923	24ABC660A**30	CSPH*6012A**+TDR		55,000	12.5	14.5
3804415	24ABC660A**30	FB4CNF060		54,000	13.0	15.0
3631719	24ABC660A**30	FE4ANB006+UI		55,000	13.0	16.0
3631815	24ABC660A**30	FV4CNB006		55,000	13.0	16.0
3632308	24ABC660A**30	FX4DN(B,F)061		55,500	13.5	16.0
3632315	24ABC660A**30	FY5BNB060		54,500	12.0	14.0
3838051	24ABC661A**30	†CNPV*6124A**+TDR		59,500	12.0	14.5
3838053	24ABC661A**30	CAP**6021A**	58CV(A,X)110−20	58,000	12.0	14.5
3838055	24ABC661A**30	CAP**6021A**	58ME(B,C)100−20	57,500	12.5	14.5
3838054	24ABC661A**30	CAP**6021A**	58PH*110−20	58,000	12.5	14.5
3838052	24ABC661A**30	CAP**6021A**+TDR		58,000	12.0	14.0
3838111	24ABC661A**30	CAP**6024A**	58CV(A,X)110−20	58,000	12.5	14.5
3838057	24ABC661A**30	CAP**6024A**	58CV(A,X)135−22	58,000	12.5	14.5
3838058	24ABC661A**30	CAP**6024A**	58CV(A,X)155−22	58,000	12.5	14.5
3838113	24ABC661A**30	CAP**6024A**	58ME(B,C)100−20	58,000	12.5	14.5
3838060	24ABC661A**30	CAP**6024A**	58ME(B,C)120−20	58,000	12.5	14.5
3838112	24ABC661A**30	CAP**6024A**	58PH*110−20	58,000	12.5	14.5
3838059	24ABC661A**30	CAP**6024A**	58PH*135−20	58,000	12.5	14.5
3838114	24ABC661A**30	CAP**6024A**	58VLR120−20	58,000	12.0	14.0
4745015	24ABC661A**30	CAP**6024A**	59*N*A120V24**22	58,000	12.0	14.5
4745016	24ABC661A**30	CAP**6024A**	59*P5A120E24**22	58,000	12.0	14.5
3838056	24ABC661A**30	CAP**6024A**+TDR		59,000	12.0	14.0
3838062	24ABC661A**30	CAP**6025A**	58CV(A,X)135−22	58,000	12.5	14.5
3838063	24ABC661A**30	CAP**6025A**	58CV(A,X)155−22	58,000	12.5	14.5
3838065	24ABC661A**30	CAP**6025A**	58ME(B,C)120−20	58,000	12.5	14.5
3838064	24ABC661A**30	CAP**6025A**	58PH*135−20	58,000	12.5	14.5
4745017	24ABC661A**30	CAP**6025A**	59*N*A120V24**22	58,000	12.0	14.5
4745018	24ABC661A**30	CAP**6025A**	59*P5A120E24**22	58,000	12.0	14.5
3838061	24ABC661A**30	CAP**6025A**+TDR		59,000	12.0	14.0
3838077	24ABC661A**30	CNPH*6024A**	58CV(A,X)110−20	58,000	12.5	14.5
3838078	24ABC661A**30	CNPH*6024A**	58CV(A,X)135−22	58,000	12.5	14.5
3838079	24ABC661A**30	CNPH*6024A**	58CV(A,X)155−22	58,000	13.0	15.2
3838082	24ABC661A**30	CNPH*6024A**	58ME(B,C)080−16	57,500	12.0	14.0
3838083	24ABC661A**30	CNPH*6024A**	58ME(B,C)100−20	58,000	12.5	14.5
3838084	24ABC661A**30	CNPH*6024A**	58ME(B,C)120−20	58,000	12.5	14.5
3838080	24ABC661A**30	CNPH*6024A**	58PH*110−20	58,000	12.5	14.5
3838081	24ABC661A**30	CNPH*6024A**	58PH*135−20	58,000	12.5	14.5

See notes on page 52

COMBINATION RATINGS

AHRI Ref. No.	Model Number	Indoor Model	Furnace Model	Capacity	EER	SEER
3838124	24ABC661A**30	CNPH*6024A**	58VLR120−20	58,000	12.0	14.0
4745023	24ABC661A**30	CNPH*6024A**	59*N*A120V24**22	58,000	12.0	14.5
4745024	24ABC661A**30	CNPH*6024A**	59*P5A120E24**22	58,000	12.0	14.5
3838076	24ABC661A**30	CNPH*6024A**+TDR		59,000	12.0	14.0
3838086	24ABC661A**30	CNPH*6124A**	58CV(A,X)110−20	58,000	12.5	14.5
3838087	24ABC661A**30	CNPH*6124A**	58CV(A,X)135−22	58,500	12.5	14.5
3838088	24ABC661A**30	CNPH*6124A**	58CV(A,X)155−22	58,500	13.0	15.2
3838091	24ABC661A**30	CNPH*6124A**	58ME(B,C)100−20	58,000	12.5	14.5
3838092	24ABC661A**30	CNPH*6124A**	58ME(B,C)120−20	58,000	12.5	14.5
3838089	24ABC661A**30	CNPH*6124A**	58PH*110−20	58,000	12.5	14.5
3838090	24ABC661A**30	CNPH*6124A**	58PH*135−20	58,000	12.5	14.5
4745025	24ABC661A**30	CNPH*6124A**	59*N*A120V24**22	58,500	12.0	14.5
4745026	24ABC661A**30	CNPH*6124A**	59*P5A120E24**22	58,000	12.0	14.5
3838085	24ABC661A**30	CNPH*6124A**+TDR		58,500	12.0	14.0
3838115	24ABC661A**30	CNPV*6024A**	58CV(A,X)110−20	58,000	12.0	14.5
3838067	24ABC661A**30	CNPV*6024A**	58CV(A,X)135−22	58,000	12.5	14.5
3838068	24ABC661A**30	CNPV*6024A**	58CV(A,X)155−22	58,000	13.0	15.2
3838117	24ABC661A**30	CNPV*6024A**	58ME(B,C)100−20	58,000	12.5	14.5
3838070	24ABC661A**30	CNPV*6024A**	58ME(B,C)120−20	58,000	12.5	14.5
3838116	24ABC661A**30	CNPV*6024A**	58PH*110−20	58,000	12.5	14.5
3838069	24ABC661A**30	CNPV*6024A**	58PH*135−20	58,000	12.5	14.5
3838122	24ABC661A**30	CNPV*6024A**	58VLR120−20	58,000	12.0	14.0
4745019	24ABC661A**30	CNPV*6024A**	59*N*A120V24**22	58,000	12.0	14.5
4745020	24ABC661A**30	CNPV*6024A**	59*P5A120E24**22	58,000	12.0	14.5
3838066	24ABC661A**30	CNPV*6024A**+TDR		59,000	12.0	14.0
3838118	24ABC661A**30	CNPV*6124A**	58CV(A,X)110−20	58,500	12.5	14.5
3838072	24ABC661A**30	CNPV*6124A**	58CV(A,X)135−22	59,000	13.0	15.2
3838073	24ABC661A**30	CNPV*6124A**	58CV(A,X)155−22	59,000	13.0	15.2
3838119	24ABC661A**30	CNPV*6124A**	58ME(B,C)100−20	58,500	12.5	14.5
3838075	24ABC661A**30	CNPV*6124A**	58ME(B,C)120−20	58,500	13.0	15.2
3838071	24ABC661A**30	CNPV*6124A**	58MV(B,C)120−20	58,500	12.5	14.5
3838123	24ABC661A**30	CNPV*6124A**	58PH*110−20	59,000	13.0	15.2
3838074	24ABC661A**30	CNPV*6124A**	58PH*135−20	58,500	12.5	14.5
3838120	24ABC661A**30	CNPV*6124A**	58VLR120−20	59,000	12.5	14.5
4745021	24ABC661A**30	CNPV*6124A**	59*N*A120V24**22	59,000	12.5	15.0
4745022	24ABC661A**30	CNPV*6124A**	59*P5A120E24**22	59,000	12.5	15.0
3838095	24ABC661A**30	CSPH*6012A**	58CV(A,X)110−20	58,500	12.5	14.5
3838096	24ABC661A**30	CSPH*6012A**	58CV(A,X)135−22	58,500	12.5	14.5
3838097	24ABC661A**30	CSPH*6012A**	58CV(A,X)155−22	58,500	13.0	15.2
3838100	24ABC661A**30	CSPH*6012A**	58ME(B,C)080−16	57,500	12.5	14.5
3838101	24ABC661A**30	CSPH*6012A**	58ME(B,C)100−20	58,000	12.5	14.5
3838102	24ABC661A**30	CSPH*6012A**	58ME(B,C)120−20	58,500	13.0	15.2
3838094	24ABC661A**30	CSPH*6012A**	58MV(B,C)120−20	58,000	12.5	14.0
3838098	24ABC661A**30	CSPH*6012A**	58PH*110−20	58,500	12.5	14.5
3838099	24ABC661A**30	CSPH*6012A**	58PH*135−20	58,500	12.5	14.5
3838121	24ABC661A**30	CSPH*6012A**	58VLR120−20	58,500	12.5	14.5
4745027	24ABC661A**30	CSPH*6012A**	59*N*A120V24**22	58,500	12.5	15.0
4745028	24ABC661A**30	CSPH*6012A**	59*P5A120E24**22	58,500	12.0	14.5
3838093	24ABC661A**30	CSPH*6012A**+TDR		59,000	12.0	14.0
3888362	24ABC661A**30	FB4CNF060		58,000	12.0	14.0
3838106	24ABC661A**30	FE4ANB006+UI		59,000	13.0	15.0
3838108	24ABC661A**30	FV4CNB006		59,000	13.0	15.0
3838105	24ABC661A**30	FX4DN(B,F)061		59,500	12.5	15.0
3838104	24ABC661A**30	FY5BNB060		59,000	12.0	13.5

† Tested combination

EER — Energy Efficiency Ratio

SEER — Seasonal Energy Efficiency Ratio

TDR — Time−Delay Relay. In most cases, only 1 method should be used to achieve TDR function. Using more than 1 method in a system may cause degradation in performance. Use either the accessory Time−Delay Relay KAATD0101TDR or a furnace equipped with TDR. Most Carrier furnaces are equipped with TDR.

TXV — Thermostatic Expansion Valve

UI — User Interface

NOTES:

1. Ratings are net values reflecting the effects of circulating fan motor heat. Supplemental electric heat is not included.
2. Tested outdoor/indoor combinations have been tested in accordance with DOE test procedures for central air conditioners. Ratings for other combinations are determined under DOE computer simulation procedures.
3. Determine actual CFM values obtainable for your system by referring to fan performance data in fan coil or furnace coil literature.
4. Do not apply with capillary tube coils as performance and reliability are affected.

DETAILED COOLING CAPACITIES#

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
24ABC618A**31 Outdoor Section With CNPV*1917A** Indoor Section																			
525	72 (22.2)	21.52	10.39	1.18	20.55	10.05	1.32	19.48	9.68	1.48	18.35	9.29	1.65	17.15	8.88	1.84	15.88	8.46	2.06
	67 (19.4)	19.59	12.69	1.18	18.66	12.32	1.32	17.68	11.95	1.47	16.64	11.56	1.64	15.54	11.14	1.83	14.37	10.72	2.05
	63 (17.2)††	18.14	12.20	1.18	17.28	11.84	1.32	16.37	11.47	1.47	15.40	11.07	1.63	14.37	10.66	1.82	13.27	10.22	2.04
	62 (16.7)	17.80	14.92	1.18	16.97	14.56	1.31	16.08	14.18	1.47	15.17	13.78	1.63	14.30	14.30	1.82	13.42	13.42	2.04
	57 (13.9)	17.19	17.19	1.18	16.54	16.54	1.31	15.84	15.84	1.46	15.09	15.09	1.63	14.27	14.27	1.82	13.40	13.40	2.04
600	72 (22.2)	21.94	10.93	1.21	20.92	10.58	1.35	19.82	10.21	1.51	18.63	9.81	1.68	17.39	9.40	1.87	16.07	8.97	2.09
	67 (19.4)	19.99	13.55	1.20	19.03	13.19	1.35	18.00	12.80	1.50	16.92	12.40	1.67	15.78	11.98	1.86	14.57	11.54	2.08
	63 (17.2)††	18.55	13.02	1.20	17.64	12.65	1.34	16.68	12.26	1.49	15.68	11.86	1.66	14.60	11.44	1.85	13.47	10.99	2.07
	62 (16.7)	18.25	16.11	1.20	17.39	15.72	1.34	16.55	16.55	1.49	15.74	15.74	1.66	14.87	14.87	1.85	13.93	13.93	2.07
	57 (13.9)	17.99	17.99	1.20	17.28	17.28	1.34	16.53	16.53	1.49	15.72	15.72	1.66	14.85	14.85	1.85	13.91	13.91	2.07
675	72 (22.2)	22.24	11.45	1.23	21.19	11.09	1.38	20.06	10.72	1.54	18.83	10.32	1.71	17.55	9.90	1.90	16.20	9.47	2.12
	67 (19.4)	20.29	14.38	1.23	19.30	14.01	1.37	18.24	13.62	1.53	17.13	13.22	1.70	15.95	12.79	1.89	14.72	12.34	2.10
	63 (17.2)††	18.85	13.79	1.23	17.91	13.42	1.37	16.92	13.03	1.52	15.88	12.61	1.69	14.78	12.18	1.88	13.63	11.73	2.10
	62 (16.7)	18.68	18.68	1.23	17.93	17.93	1.37	17.12	17.12	1.52	16.26	16.26	1.69	15.33	15.33	1.88	14.35	14.35	2.10
	57 (13.9)	18.66	18.66	1.23	17.90	17.90	1.37	17.09	17.09	1.52	16.24	16.24	1.69	15.31	15.31	1.88	14.33	14.33	2.10

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*1917A**	1.00	1.00	
CAP**1814A**	1.00	1.04	
CAP**2414A**	1.00	1.04	
CAP**2417A**	1.00	1.04	
CAP**3014A**	1.00	1.00	
CAP**3017A**	1.00	1.00	
CAP**3614A**	1.00	1.00	
CAP**3617A**	1.00	1.00	
CAP**3619A**	1.00	1.00	
CAP**3621A**	1.00	1.00	
CNPF*2418A**	1.00	1.04	
CNPH*2417A**	1.00	1.00	
CNPV*1814A**	1.00	1.04	
CNPV*2414A**	1.00	1.04	
CNPV*2417A**	1.00	1.04	
CSPH*2412A**	1.00	1.00	
FB4CNF018	1.00	0.92	
FB4CNF018	1.00	0.96	
FB4CNF024	1.00	0.92	
FB4CNF024	1.00	0.96	
FE4ANF002	1.00	0.92	
FF1ENP018	1.00	1.04	
FF1ENP019	1.00	0.96	
FF1ENP024	1.00	1.04	
FF1ENP025	1.00	0.92	
FV4BNF002	1.06	0.96	
FV4CNF002	1.00	0.92	
FX4CNF018	1.05	0.99	
FX4CNF024	1.06	0.98	
FX4DNF019	1.00	0.92	
FX4DNF025	1.00	0.92	
FY4ANF018	1.03	1.08	
FY4ANF024	1.04	1.08	
FY5BNF018	1.00	1.00	
FY5BNF018	1.00	1.00	
FY5BNF024	1.00	1.00	
FY5BNF024	1.00	1.00	

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**1814A**	1.00	0.96	58CV(A,X)070–12
CAP**2414A**	1.00	0.92	58CV(A,X)070–12
CAP**2417A**	1.00	0.92	58CV(A,X)070–12
CAP**3014A**	1.00	0.92	58CV(A,X)070–12
CAP**3614A**	1.00	0.92	58CV(A,X)070–12
CNPH*2417A**	1.00	0.92	58CV(A,X)070–12
CNPV*1814A**	1.00	0.92	58CV(A,X)070–12
CNPV*1917A**	1.00	0.92	58CV(A,X)070–12
CNPV*2414A**	1.00	0.92	58CV(A,X)070–12
CNPV*2417A**	1.00	0.92	58CV(A,X)070–12
CSPH*2412A**	1.00	0.92	58CV(A,X)070–12
CAP**2417A**	1.00	0.92	58CV(A,X)090–16
CAP**3017A**	1.00	0.92	58CV(A,X)090–16
CAP**3617A**	1.00	0.92	58CV(A,X)090–16
CNPH*2417A**	1.00	0.92	58CV(A,X)090–16
CNPV*1917A**	1.00	0.92	58CV(A,X)090–16
CNPV*2417A**	1.00	0.92	58CV(A,X)090–16
CSPH*2412A**	1.00	0.92	58CV(A,X)090–16
CNPH*2417A**	1.02	0.94	58HDV040––12
CNPV*1917A**	1.03	0.95	58HDV040––12
CNPV*2417A**	1.02	0.94	58HDV040––12
CSPH*2412A**	1.00	0.92	58HDV040––12
CNPH*2417A**	1.02	0.94	58HDV060––12
CNPV*2417A**	1.00	0.92	58HDV060––12
CSPH*2412A**	1.00	0.92	58HDV060––12
CAP**2417A**	1.00	0.92	58ME(B,C)060–12
CAP**3017A**	1.00	0.92	58ME(B,C)060–12
CAP**3617A**	1.00	0.92	58ME(B,C)060–12
CNPH*2417A**	1.00	0.92	58ME(B,C)060–12
CNPV*1917A**	1.00	0.92	58ME(B,C)060–12
CNPV*2417A**	1.00	0.92	58ME(B,C)060–12
CSPH*2412A**	1.00	0.92	58ME(B,C)060–12
CAP**2417A**	1.00	0.92	58MEB040–12
CAP**3017A**	1.00	0.92	58MEB040–12
CAP**3617A**	1.00	0.92	58MEB040–12
CNPH*2417A**	1.00	0.92	58MEB040–12
CNPV*1917A**	1.00	0.92	58MEB040–12

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*2417A**	1.00	0.92	58MEB040–12
CSPH*2412A**	1.00	0.92	58MEB040–12
CAP**2417A**	1.00	0.92	58MV(B,C)060–14
CAP**3017A**	1.00	0.92	58MV(B,C)060–14
CAP**3617A**	1.00	0.92	58MV(B,C)060–14
CNPH*2417A**	1.00	0.92	58MV(B,C)060–14
CNPV*1917A**	1.00	0.92	58MV(B,C)060–14
CNPV*2417A**	1.00	0.92	58MV(B,C)060–14
CSPH*2412A**	1.00	0.92	58MV(B,C)060–14
CAP**3621A**	1.00	0.92	58MV(B,C)080–14
CNPH*2417A**	1.00	0.92	58MV(B,C)080–14
CSPH*2412A**	1.00	0.92	58MV(B,C)080–14
CNPH*2417A**	1.00	0.92	58MVB040–14
CSPH*2412A**	1.00	0.92	58MVB040–14
CAP**1814A**	1.00	0.92	58PH*045–08
CAP**2414A**	1.00	0.92	58PH*045–08
CAP**2417A**	1.00	0.92	58PH*045–08
CAP**3014A**	1.00	0.92	58PH*045–08
CAP**3614A**	1.00	0.92	58PH*045–08
CNPH*2417A**	1.00	0.92	58PH*045–08
CNPV*1814A**	1.00	0.92	58PH*045–08
CNPV*1917A**	1.00	0.92	58PH*045–08
CNPV*2414A**	1.00	0.92	58PH*045–08
CNPV*2417A**	1.00	0.92	58PH*045–08
CSPH*2412A**	1.00	0.92	58PH*045–08
CAP**2417A**	1.00	0.92	58UVB060–14
CAP**3017A**	1.04	0.94	58UVB060–14
CAP**3617A**	1.04	0.94	58UVB060–14
CNPV*1917A**	1.00	0.92	58UVB060–14
CNPV*2417A**	1.00	0.92	58UVB060–14
CAP**3621A**	1.00	0.92	58UVB080–14
CAP**2417A**	1.00	0.92	58VLR105–12
CAP**3017A**	1.00	0.92	58VLR105–12
CAP**3617A**	1.00	0.92	58VLR105–12
CNPH*2417A**	1.00	0.92	58VLR105–12
CNPV*1917A**	1.00	0.92	58VLR105–12
CNPV*2417A**	1.00	0.92	58VLR105–12

DETAILED COOLING CAPACITIES# (CONT.)

24ABC618A31 Outdoor Section With CNPV*1917A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*2412A**	1.00	0.92	58VLR105–12
CAP**2417A**	1.00	0.92	58VMR105–12
CAP**3017A**	1.00	0.92	58VMR105–12
CAP**3617A**	1.00	0.92	58VMR105–12
CNPH*2417A**	1.00	0.92	58VMR105–12
CNPV*1917A**	1.00	0.92	58VMR105–12
CNPV*2417A**	1.00	0.92	58VMR105–12
CSPH*2412A**	1.00	0.92	58VMR105–12
CAP**2417A**	1.00	0.92	59*N*A060V17**14
CNPH*2417A**	1.00	0.92	59*N*A060V17**14
CNPV*1917A**	1.00	0.92	59*N*A060V17**14
CNPV*2417A**	1.00	0.92	59*N*A060V17**14
CSPH*2412A**	1.00	0.92	59*N*A060V17**14
CAP**2417A**	1.00	0.92	59*N*A080V17**14
CNPH*2417A**	1.00	0.92	59*N*A080V17**14
CNPV*1917A**	1.00	0.92	59*N*A080V17**14
CNPV*2417A**	1.00	0.92	59*N*A080V17**14
CSPH*2412A**	1.00	0.92	59*N*A080V17**14
CAP**1814A**	1.00	0.94	59*P5A040E14**10
CAP**2414A**	1.00	0.94	59*P5A040E14**10
CAP**2417A**	1.00	0.94	59*P5A040E14**10
CNPH*2417A**	1.00	0.94	59*P5A040E14**10
CNPV*1814A**	1.00	0.94	59*P5A040E14**10
CNPV*1917A**	1.00	0.92	59*P5A040E14**10
CNPV*2414A**	1.00	0.94	59*P5A040E14**10
CNPV*2417A**	1.00	0.94	59*P5A040E14**10
CSPH*2412A**	1.00	0.94	59*P5A040E14**10
CAP**2417A**	1.00	0.92	OVLAAB036098
CNPH*2417A**	1.02	0.94	OVLAAB036098
CNPV*1917A**	1.02	0.94	OVLAAB036098
CNPV*2417A**	1.02	0.94	OVLAAB036098
CSPH*2412A**	1.02	0.94	OVLAAB036098
CAP**2417A**	1.00	0.92	OVMAAB036098
CNPH*2417A**	1.02	0.94	OVMAAB036098
CNPV*1917A**	1.02	0.94	OVMAAB036098
CNPV*2417A**	1.02	0.94	OVMAAB036098
CSPH*2412A**	1.02	0.94	OVMAAB036098

See notes on pg. 78

DETAILED COOLING CAPACITIES# (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
24ABC624A**30 Outdoor Section With CNPV*3117A** Indoor Section																			
700	72 (22.2)	28.21	13.70	1.55	26.92	13.25	1.74	25.54	12.78	1.94	24.09	12.29	2.16	22.56	11.77	2.41	20.94	11.24	2.68
	67 (19.4)	25.63	16.78	1.55	24.44	16.32	1.73	23.19	15.85	1.93	21.87	15.36	2.15	20.47	14.84	2.39	18.98	14.29	2.67
	63 (17.2)††	23.72	16.13	1.55	22.62	15.67	1.73	21.46	15.20	1.92	20.22	14.70	2.14	18.91	14.18	2.38	17.52	13.62	2.67
	62 (16.7)	23.32	19.80	1.55	22.25	19.34	1.73	21.14	18.86	1.92	20.00	19.96	2.14	18.95	18.95	2.38	17.82	17.82	2.67
	57 (13.9)	22.68	22.68	1.55	21.84	21.84	1.73	20.93	20.93	1.92	19.96	19.96	2.14	18.92	18.92	2.38	17.79	17.79	2.67
800	72 (22.2)	28.72	14.43	1.58	27.38	13.97	1.77	25.95	13.49	1.98	24.44	12.99	2.20	22.85	12.47	2.44	21.17	11.93	2.72
	67 (19.4)	26.16	17.95	1.58	24.91	17.49	1.77	23.60	17.00	1.97	22.22	16.49	2.19	20.76	15.96	2.43	19.23	15.41	2.71
	63 (17.2)††	24.23	17.22	1.58	23.08	16.75	1.77	21.86	16.27	1.96	20.58	15.76	2.18	19.21	15.22	2.42	17.78	14.66	2.70
	62 (16.7)	23.91	21.38	1.58	22.85	22.74	1.77	21.85	21.85	1.96	20.81	20.81	2.18	19.69	19.69	2.42	18.49	18.49	2.71
	57 (13.9)	23.70	23.70	1.58	22.79	22.79	1.76	21.82	21.82	1.96	20.78	20.78	2.18	19.66	19.66	2.43	18.46	18.46	2.71
900	72 (22.2)	29.09	15.12	1.62	27.72	14.67	1.81	26.23	14.18	2.02	24.68	13.67	2.24	23.05	13.15	2.48	21.32	12.60	2.76
	67 (19.4)	26.54	19.08	1.62	25.25	18.60	1.81	23.90	18.11	2.01	22.48	17.59	2.22	20.98	17.05	2.47	19.42	16.48	2.75
	63 (17.2)††	24.61	18.27	1.62	23.42	17.79	1.80	22.16	17.30	2.00	20.84	16.78	2.22	19.45	16.23	2.46	17.98	15.65	2.74
	62 (16.7)	24.60	24.60	1.62	23.62	23.62	1.80	22.58	22.58	2.00	21.48	21.48	2.22	20.29	20.29	2.47	19.02	19.02	2.75
	57 (13.9)	24.56	24.56	1.62	23.59	23.59	1.80	22.55	22.55	2.00	21.45	21.45	2.22	20.27	20.27	2.47	18.99	18.99	2.75

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*3117A**	1.00	1.00	
CAP**2414A**	0.97	1.02	
CAP**2417A**	0.97	1.02	
CAP**3014A**	0.98	1.03	
CAP**3017A**	0.98	1.03	
CAP**3614A**	0.98	1.03	
CAP**3617A**	0.98	1.03	
CAP**3619A**	0.98	1.03	
CAP**3621A**	0.98	1.03	
CAP**4221A**	1.02	1.02	
CAP**4224A**	1.02	1.02	
CNPF*2418A**	0.97	1.02	
CNPF*3618A**	0.98	1.03	
CNPH*2417A**	0.97	1.02	
CNPH*3017A**	0.98	1.03	
CNPH*3117A**	1.00	1.00	
CNPH*3617A**	0.98	1.03	
CNPV*1917A**	0.98	1.03	
CNPV*2414A**	0.97	1.02	
CNPV*2417A**	0.97	1.02	
CNPV*3014A**	0.98	1.03	
CNPV*3017A**	0.98	1.03	
CNPV*3617A**	0.98	1.03	
CNPV*3621A**	0.98	1.03	
CSPH*2412A**	0.98	1.03	
CSPH*3012A**	0.98	1.03	
CSPH*3612A**	1.00	1.00	
FB4CNF024	0.97	0.97	
FB4CNF024	0.97	0.97	
FB4CNF030	0.99	0.92	
FB4CNF030	0.99	0.95	
FE4AN(B,F)003	0.98	0.91	
FE4ANF002	0.98	0.91	
FF1ENP024	0.97	1.01	
FF1ENP025	0.98	0.94	
FF1ENP030	0.97	1.01	
FF1ENP031	0.98	0.94	

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
FF1ENP036	0.97	1.06	
FF1ENP037	0.99	0.95	
FV4BN(B,F)003	1.03	0.91	
FV4BNF002	1.03	0.92	
FV4CN(B,F)003	0.98	0.91	
FV4CNF002	0.98	0.91	
FX4CN(B,F)036	1.03	1.02	
FX4CNF024	1.03	0.95	
FX4CNF030	1.04	0.95	
FX4DN(B,F)031	1.00	0.96	
FX4DNF025	0.99	0.92	
FY4ANF024	1.02	1.02	
FY4ANF030	1.03	1.01	
FY4ANF036	1.03	1.05	
FY5BNF024	0.98	0.98	
FY5BNF024	0.98	0.98	
FY5BNF030	0.99	0.99	
FY5BNF030	0.99	0.99	
CAP**2414A**	0.97	0.93	58CV(A,X)070–12
CAP**2417A**	0.97	0.93	58CV(A,X)070–12
CAP**3014A**	0.97	0.89	58CV(A,X)070–12
CAP**3017A**	0.97	0.90	58CV(A,X)070–12
CAP**3614A**	0.97	0.90	58CV(A,X)070–12
CAP**3617A**	0.97	0.90	58CV(A,X)070–12
CNPH*2417A**	0.97	0.93	58CV(A,X)070–12
CNPH*3017A**	0.97	0.90	58CV(A,X)070–12
CNPH*3117A**	0.99	0.92	58CV(A,X)070–12
CNPH*3617A**	0.97	0.90	58CV(A,X)070–12
CNPV*1917A**	0.97	0.90	58CV(A,X)070–12
CNPV*2414A**	0.97	0.93	58CV(A,X)070–12
CNPV*2417A**	0.97	0.93	58CV(A,X)070–12
CNPV*3014A**	0.97	0.90	58CV(A,X)070–12
CNPV*3017A**	0.97	0.90	58CV(A,X)070–12
CNPV*3117A**	0.99	0.92	58CV(A,X)070–12
CNPV*3617A**	0.97	0.90	58CV(A,X)070–12
CSPH*3012A**	0.97	0.90	58CV(A,X)070–12
CSPH*3612A**	0.99	0.92	58CV(A,X)070–12

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**2417A**	0.97	0.89	58CV(A,X)090–16
CAP**3017A**	0.97	0.90	58CV(A,X)090–16
CAP**3617A**	0.97	0.90	58CV(A,X)090–16
CAP**3621A**	0.97	0.90	58CV(A,X)090–16
CNPH*2417A**	0.97	0.89	58CV(A,X)090–16
CNPH*3017A**	0.97	0.90	58CV(A,X)090–16
CNPH*3117A**	0.99	0.92	58CV(A,X)090–16
CNPH*3617A**	0.97	0.90	58CV(A,X)090–16
CNPV*1917A**	0.97	0.90	58CV(A,X)090–16
CNPV*2417A**	0.97	0.89	58CV(A,X)090–16
CNPV*3017A**	0.97	0.90	58CV(A,X)090–16
CNPV*3117A**	0.99	0.92	58CV(A,X)090–16
CNPV*3617A**	0.97	0.90	58CV(A,X)090–16
CNPV*3621A**	0.97	0.90	58CV(A,X)090–16
CSPH*3012A**	0.98	0.91	58CV(A,X)090–16
CSPH*3612A**	0.99	0.92	58CV(A,X)090–16
CAP**3621A**	0.98	0.91	58CV(A,X)110–20
CAP**4221A**	1.02	0.94	58CV(A,X)110–20
CNPH*2417A**	0.97	0.93	58CV(A,X)110–20
CNPH*3017A**	0.97	0.90	58CV(A,X)110–20
CNPH*3117A**	0.99	0.92	58CV(A,X)110–20
CNPH*3617A**	0.97	0.90	58CV(A,X)110–20
CNPV*3621A**	0.97	0.90	58CV(A,X)110–20
CSPH*3012A**	0.98	0.91	58CV(A,X)110–20
CSPH*3612A**	0.99	0.92	58CV(A,X)110–20
CAP**4224A**	1.02	0.94	58CV(A,X)135–22
CNPH*2417A**	0.97	0.93	58CV(A,X)135–22
CNPH*3017A**	0.97	0.90	58CV(A,X)135–22
CNPH*3117A**	0.99	0.92	58CV(A,X)135–22
CNPH*3617A**	0.97	0.90	58CV(A,X)135–22
CSPH*3012A**	0.98	0.91	58CV(A,X)135–22
CSPH*3612A**	0.99	0.92	58CV(A,X)135–22
CAP**4224A**	1.02	0.94	58CV(A,X)155–22
CNPH*2417A**	0.97	0.93	58CV(A,X)155–22
CNPH*3017A**	0.97	0.90	58CV(A,X)155–22
CNPH*3117A**	0.99	0.92	58CV(A,X)155–22
CNPH*3617A**	0.97	0.90	58CV(A,X)155–22

DETAILED COOLING CAPACITIES# (CONT.)

24ABC624A30 Outdoor Section With CNPV*3117A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*3012A**	0.98	0.91	58CV(A,X)155–22
CSPH*3612A**	0.99	0.92	58CV(A,X)155–22
CAP**3619A**	0.99	0.95	58HDV040– –12
CNPH*2417A**	0.99	0.95	58HDV040– –12
CNPH*3017A**	1.00	0.96	58HDV040– –12
CNPH*3117A**	1.00	0.92	58HDV040– –12
CNPV*2417A**	0.99	0.95	58HDV040– –12
CNPV*3017A**	1.00	0.96	58HDV040– –12
CNPV*3117A**	1.02	0.94	58HDV040– –12
CSPH*2412A**	0.98	0.92	58HDV040– –12
CAP**3619A**	1.00	0.96	58HDV060– –12
CNPH*2417A**	0.99	0.95	58HDV060– –12
CNPH*3017A**	1.00	0.96	58HDV060– –12
CNPH*3117A**	1.00	0.92	58HDV060– –12
CNPV*3017A**	1.02	0.98	58HDV060– –12
CNPV*3117A**	1.02	0.94	58HDV060– –12
CSPH*2412A**	0.98	0.92	58HDV060– –12
CNPH*2417A**	0.99	0.95	58HDV080– –20
CNPH*3017A**	1.00	0.92	58HDV080– –20
CNPH*3117A**	1.00	0.92	58HDV080– –20
CNPH*2417A**	0.99	0.95	58HDV100– –20
CNPH*3017A**	1.00	0.92	58HDV100– –20
CNPH*3117A**	1.00	0.92	58HDV100– –20
CAP**2417A**	0.99	0.92	58ME(B,C)060–12
CAP**3017A**	1.00	0.92	58ME(B,C)060–12
CAP**3617A**	1.01	0.93	58ME(B,C)060–12
CAP**3621A**	1.01	0.93	58ME(B,C)060–12
CNPH*2417A**	0.98	0.91	58ME(B,C)060–12
CNPH*3017A**	1.00	0.92	58ME(B,C)060–12
CNPH*3117A**	1.02	0.94	58ME(B,C)060–12
CNPH*3617A**	1.00	0.92	58ME(B,C)060–12
CNPV*1917A**	1.00	0.92	58ME(B,C)060–12
CNPV*2417A**	0.98	0.91	58ME(B,C)060–12
CNPV*3017A**	1.00	0.92	58ME(B,C)060–12
CNPV*3117A**	1.02	0.94	58ME(B,C)060–12
CNPV*3617A**	1.00	0.92	58ME(B,C)060–12
CNPV*3621A**	1.00	0.92	58ME(B,C)060–12
CSPH*3012A**	1.00	0.92	58ME(B,C)060–12
CSPH*3612A**	1.02	0.94	58ME(B,C)060–12
CAP**2417A**	0.98	0.91	58ME(B,C)080–12
CAP**3017A**	0.99	0.92	58ME(B,C)080–12
CAP**3617A**	1.00	0.92	58ME(B,C)080–12
CAP**3621A**	1.00	0.92	58ME(B,C)080–12
CNPH*2417A**	0.97	0.90	58ME(B,C)080–12
CNPH*3017A**	0.99	0.92	58ME(B,C)080–12
CNPH*3117A**	1.02	0.94	58ME(B,C)080–12
CNPH*3617A**	0.99	0.92	58ME(B,C)080–12
CNPV*2417A**	0.97	0.90	58ME(B,C)080–12
CNPV*3017A**	0.99	0.92	58ME(B,C)080–12
CNPV*3117A**	1.02	0.94	58ME(B,C)080–12
CNPV*3617A**	0.99	0.92	58ME(B,C)080–12
CNPV*3621A**	0.99	0.92	58ME(B,C)080–12
CSPH*3012A**	0.99	0.92	58ME(B,C)080–12
CSPH*3612A**	1.01	0.93	58ME(B,C)080–12
CAP**2417A**	0.99	0.92	58MEB040–12
CAP**3017A**	1.00	0.92	58MEB040–12
CAP**3617A**	1.00	0.92	58MEB040–12
CAP**3621A**	1.01	0.93	58MEB040–12

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*2417A**	0.98	0.91	58MEB040–12
CNPH*3017A**	1.00	0.92	58MEB040–12
CNPH*3117A**	1.02	0.94	58MEB040–12
CNPH*3617A**	1.00	0.92	58MEB040–12
CNPV*1917A**	1.00	0.92	58MEB040–12
CNPV*2417A**	0.98	0.91	58MEB040–12
CNPV*3017A**	1.00	0.92	58MEB040–12
CNPV*3117A**	1.02	0.94	58MEB040–12
CNPV*3617A**	1.00	0.92	58MEB040–12
CNPV*3621A**	1.00	0.92	58MEB040–12
CSPH*3012A**	1.00	0.92	58MEB040–12
CSPH*3612A**	1.02	0.94	58MEB040–12
CAP**2417A**	0.98	0.91	58MV(B,C)060–14
CAP**3017A**	0.98	0.91	58MV(B,C)060–14
CAP**3617A**	0.99	0.92	58MV(B,C)060–14
CAP**3621A**	0.99	0.92	58MV(B,C)060–14
CNPH*2417A**	0.97	0.94	58MV(B,C)060–14
CNPH*3017A**	0.98	0.91	58MV(B,C)060–14
CNPH*3117A**	1.01	0.93	58MV(B,C)060–14
CNPH*3617A**	0.98	0.91	58MV(B,C)060–14
CNPV*1917A**	0.99	0.92	58MV(B,C)060–14
CNPV*2417A**	0.97	0.94	58MV(B,C)060–14
CNPV*3017A**	0.98	0.91	58MV(B,C)060–14
CNPV*3117A**	1.01	0.93	58MV(B,C)060–14
CNPV*3617A**	0.98	0.91	58MV(B,C)060–14
CNPV*3621A**	0.98	0.91	58MV(B,C)060–14
CSPH*3012A**	0.99	0.92	58MV(B,C)060–14
CSPH*3612A**	1.01	0.93	58MV(B,C)060–14
CAP**3621A**	0.97	0.90	58MV(B,C)080–14
CAP**4221A**	1.02	0.94	58MV(B,C)080–14
CNPH*2417A**	0.97	0.93	58MV(B,C)080–14
CNPH*3017A**	0.97	0.90	58MV(B,C)080–14
CNPH*3117A**	0.99	0.92	58MV(B,C)080–14
CNPH*3617A**	0.97	0.90	58MV(B,C)080–14
CNPV*3621A**	0.97	0.90	58MV(B,C)080–14
CSPH*3012A**	0.97	0.90	58MV(B,C)080–14
CSPH*3612A**	0.99	0.92	58MV(B,C)080–14
CAP**3621A**	0.97	0.89	58MV(B,C)080–20
CAP**4221A**	1.02	0.94	58MV(B,C)080–20
CNPH*2417A**	0.96	0.92	58MV(B,C)080–20
CNPH*3017A**	0.97	0.89	58MV(B,C)080–20
CNPH*3117A**	0.98	0.91	58MV(B,C)080–20
CNPH*3617A**	0.97	0.89	58MV(B,C)080–20
CNPV*3621A**	0.97	0.89	58MV(B,C)080–20
CSPH*3012A**	0.97	0.89	58MV(B,C)080–20
CSPH*3612A**	0.98	0.91	58MV(B,C)080–20
CAP**3621A**	0.97	0.90	58MV(B,C)100–20
CAP**4221A**	1.02	0.94	58MV(B,C)100–20
CNPH*2417A**	0.97	0.93	58MV(B,C)100–20
CNPH*3017A**	0.97	0.90	58MV(B,C)100–20
CNPH*3117A**	0.99	0.92	58MV(B,C)100–20
CNPH*3617A**	0.97	0.90	58MV(B,C)100–20
CNPV*3621A**	0.97	0.90	58MV(B,C)100–20
CSPH*3012A**	0.97	0.90	58MV(B,C)100–20
CSPH*3612A**	0.99	0.92	58MV(B,C)100–20
CAP**4224A**	1.02	0.94	58MV(B,C)120–20
CNPH*2417A**	0.97	0.90	58MV(B,C)120–20
CNPH*3017A**	0.98	0.91	58MV(B,C)120–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*3117A**	1.00	0.92	58MV(B,C)120–20
CNPH*3617A**	0.98	0.91	58MV(B,C)120–20
CSPH*3012A**	0.98	0.91	58MV(B,C)120–20
CSPH*3612A**	1.00	0.92	58MV(B,C)120–20
CAP**4224A**	1.02	0.94	58MVB040–14
CNPH*2417A**	0.97	0.93	58MVB040–14
CNPH*3017A**	0.97	0.90	58MVB040–14
CNPH*3117A**	0.99	0.92	58MVB040–14
CNPH*3617A**	0.97	0.90	58MVB040–14
CSPH*3012A**	0.97	0.90	58MVB040–14
CSPH*3612A**	0.99	0.92	58MVB040–14
CAP**2414A**	0.97	0.94	58PH*045–08
CAP**2417A**	0.97	0.94	58PH*045–08
CAP**3014A**	0.98	0.94	58PH*045–08
CAP**3017A**	0.98	0.91	58PH*045–08
CAP**3614A**	0.98	0.91	58PH*045–08
CAP**3617A**	0.99	0.92	58PH*045–08
CNPH*2417A**	0.97	0.94	58PH*045–08
CNPH*3017A**	0.98	0.91	58PH*045–08
CNPH*3117A**	1.01	0.93	58PH*045–08
CNPH*3617A**	0.98	0.91	58PH*045–08
CNPV*1917A**	0.98	0.91	58PH*045–08
CNPV*2414A**	0.97	0.94	58PH*045–08
CNPV*2417A**	0.97	0.94	58PH*045–08
CNPV*3014A**	0.98	0.94	58PH*045–08
CNPV*3017A**	0.98	0.91	58PH*045–08
CNPV*3117A**	1.01	0.93	58PH*045–08
CNPV*3617A**	0.98	0.91	58PH*045–08
CSPH*3012A**	0.98	0.91	58PH*045–08
CSPH*3612A**	1.00	0.92	58PH*045–08
CAP**2417A**	0.98	0.91	58UVB060–14
CAP**2417A**	0.98	0.91	58UVB060–14
CAP**3017A**	0.98	0.91	58UVB060–14
CAP**3017A**	0.98	0.91	58UVB060–14
CAP**3617A**	0.99	0.92	58UVB060–14
CAP**3617A**	0.99	0.92	58UVB060–14
CAP**3621A**	0.99	0.92	58UVB060–14
CAP**3621A**	0.99	0.92	58UVB060–14
CNPV*1917A**	0.99	0.92	58UVB060–14
CNPV*1917A**	0.99	0.92	58UVB060–14
CNPV*2417A**	0.97	0.94	58UVB060–14
CNPV*2417A**	0.97	0.94	58UVB060–14
CNPV*3017A**	0.98	0.91	58UVB060–14
CNPV*3017A**	0.98	0.91	58UVB060–14
CNPV*3117A**	1.01	0.93	58UVB060–14
CNPV*3117A**	1.01	0.93	58UVB060–14
CNPV*3617A**	0.98	0.91	58UVB060–14
CNPV*3617A**	0.98	0.91	58UVB060–14
CNPV*3621A**	0.98	0.91	58UVB060–14
CNPV*3621A**	0.98	0.91	58UVB060–14
CAP**3621A**	0.97	0.90	58UVB080–14
CAP**3621A**	0.97	0.90	58UVB080–14
CAP**4221A**	1.02	0.94	58UVB080–14
CAP**4221A**	1.02	0.94	58UVB080–14
CNPV*3621A**	0.97	0.90	58UVB080–14
CNPV*3621A**	0.97	0.90	58UVB080–14
CAP**3621A**	0.97	0.89	58UVB080–20
CAP**3621A**	0.97	0.89	58UVB080–20

DETAILED COOLING CAPACITIES# (CONT.)

24ABC624A30 Outdoor Section With CNPV*3117A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4221A**	1.02	0.94	58UVB080–20
CAP**4221A**	1.02	0.94	58UVB080–20
CNPV*3621A**	0.97	0.89	58UVB080–20
CNPV*3621A**	0.97	0.89	58UVB080–20
CAP**3621A**	0.97	0.90	58UVB100–20
CAP**3621A**	0.97	0.90	58UVB100–20
CAP**4221A**	1.02	0.94	58UVB100–20
CAP**4221A**	1.02	0.94	58UVB100–20
CNPV*3621A**	0.97	0.90	58UVB100–20
CNPV*3621A**	0.97	0.90	58UVB100–20
CAP**4224A**	1.02	0.94	58UVB120–20
CAP**4224A**	1.02	0.94	58UVB120–20
CAP**2417A**	1.02	0.94	58VLR105–12
CAP**3017A**	1.02	0.94	58VLR105–12
CAP**3617A**	1.02	0.94	58VLR105–12
CAP**3621A**	1.02	0.94	58VLR105–12
CNPH*2417A**	1.02	0.94	58VLR105–12
CNPH*3017A**	1.02	0.94	58VLR105–12
CNPH*3117A**	1.02	0.94	58VLR105–12
CNPH*3617A**	1.02	0.94	58VLR105–12
CNPV*2417A**	1.02	0.94	58VLR105–12
CNPV*3017A**	1.02	0.94	58VLR105–12
CNPV*3117A**	1.02	0.94	58VLR105–12
CNPV*3617A**	1.02	0.94	58VLR105–12
CNPV*3621A**	1.02	0.94	58VLR105–12
CSPH*2412A**	1.02	0.94	58VLR105–12
CSPH*3012A**	1.02	0.94	58VLR105–12
CSPH*3612A**	1.02	0.94	58VLR105–12
CAP**2417A**	1.01	0.93	58VMR105–12
CAP**3017A**	1.01	0.93	58VMR105–12
CAP**3617A**	1.02	0.94	58VMR105–12
CAP**3621A**	1.02	0.94	58VMR105–12
CNPH*2417A**	1.01	0.93	58VMR105–12
CNPH*3017A**	1.02	0.94	58VMR105–12
CNPH*3117A**	1.02	0.94	58VMR105–12
CNPH*3617A**	1.02	0.94	58VMR105–12
CNPV*2417A**	1.02	0.94	58VMR105–12
CNPV*3017A**	1.02	0.94	58VMR105–12
CNPV*3117A**	1.02	0.94	58VMR105–12
CNPV*3617A**	1.02	0.94	58VMR105–12
CNPV*3621A**	1.02	0.94	58VMR105–12
CSPH*2412A**	1.02	0.94	58VMR105–12
CSPH*3012A**	1.02	0.94	58VMR105–12
CSPH*3612A**	1.02	0.94	58VMR105–12
CAP**2417A**	1.02	0.96	59*N*A060V17**14
CAP**3017A**	1.02	0.94	59*N*A060V17**14
CNPH*2417A**	1.02	0.96	59*N*A060V17**14
CNPH*3017A**	1.02	0.94	59*N*A060V17**14
CNPH*3117A**	1.02	0.94	59*N*A060V17**14
CNPV*2417A**	1.02	0.96	59*N*A060V17**14
CNPV*3017A**	1.02	0.94	59*N*A060V17**14
CNPV*3117A**	1.02	0.94	59*N*A060V17**14
CSPH*2412A**	1.02	0.96	59*N*A060V17**14
CSPH*3012A**	1.02	0.94	59*N*A060V17**14
CAP**2417A**	1.01	0.93	59*N*A080V17**14
CAP**3017A**	1.02	0.94	59*N*A080V17**14
CNPH*2417A**	1.01	0.95	59*N*A080V17**14
CNPH*3017A**	1.02	0.94	59*N*A080V17**14
CNPH*3117A**	1.02	0.92	59*N*A080V17**14

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*2417A**	1.01	0.95	59*N*A080V17**14
CNPV*3017A**	1.02	0.94	59*N*A080V17**14
CNPV*3117A**	1.02	0.92	59*N*A080V17**14
CSPH*2412A**	1.02	0.94	59*N*A080V17**14
CSPH*3012A**	1.02	0.94	59*N*A080V17**14
CNPH*2417A**	1.02	0.94	59*N*A100V21**20
CNPH*3017A**	1.02	0.94	59*N*A100V21**20
CNPH*3117A**	1.02	0.92	59*N*A100V21**20
CSPH*2412A**	1.02	0.94	59*N*A100V21**20
CSPH*3012A**	1.02	0.94	59*N*A100V21**20
CNPH*2417A**	1.02	0.94	59*N*A120V24**22
CNPH*3017A**	1.02	0.94	59*N*A120V24**22
CNPH*3117A**	1.02	0.92	59*N*A120V24**22
CSPH*2412A**	1.02	0.94	59*N*A120V24**22
CSPH*3012A**	1.02	0.94	59*N*A120V24**22
CAP**2414A**	1.02	1.02	59*P5A040E14**10
CAP**2417A**	1.02	1.02	59*P5A040E14**10
CAP**3014A**	1.02	1.02	59*P5A040E14**10
CAP**3017A**	1.02	1.02	59*P5A040E14**10
CNPH*2417A**	1.02	1.02	59*P5A040E14**10
CNPH*3017A**	1.02	1.02	59*P5A040E14**10
CNPH*3117A**	1.02	0.98	59*P5A040E14**10
CNPV*2414A**	1.02	1.02	59*P5A040E14**10
CNPV*2417A**	1.02	1.02	59*P5A040E14**10
CNPV*3014A**	1.02	1.02	59*P5A040E14**10
CNPV*3017A**	1.02	1.02	59*P5A040E14**10
CNPV*3117A**	1.02	0.98	59*P5A040E14**10
CSPH*2412A**	1.02	1.02	59*P5A040E14**10
CSPH*3012A**	1.02	0.98	59*P5A040E14**10
CAP**2417A**	1.02	0.94	59*P5A060E17**14
CAP**3017A**	1.02	0.94	59*P5A060E17**14
CNPH*2417A**	1.02	0.96	59*P5A060E17**14
CNPH*3017A**	1.02	0.94	59*P5A060E17**14
CNPH*3117A**	1.02	0.92	59*P5A060E17**14
CNPV*2417A**	1.02	0.96	59*P5A060E17**14
CNPV*3017A**	1.02	0.94	59*P5A060E17**14
CNPV*3117A**	1.02	0.92	59*P5A060E17**14
CSPH*2412A**	1.02	0.94	59*P5A060E17**14
CSPH*3012A**	1.02	0.94	59*P5A060E17**14
CAP**2417A**	1.02	0.94	OVLAAB036098
CAP**3017A**	1.02	0.94	OVLAAB036098
CNPH*2417A**	0.99	0.95	OVLAAB036098
CNPH*3017A**	1.00	0.92	OVLAAB036098
CNPH*3117A**	1.02	0.94	OVLAAB036098
CNPV*2417A**	0.99	0.95	OVLAAB036098
CNPV*3017A**	1.00	0.92	OVLAAB036098
CNPV*3117A**	1.02	0.94	OVLAAB036098
CSPH*2412A**	1.00	0.92	OVLAAB036098
CSPH*3012A**	1.00	0.92	OVLAAB036098
CAP**2417A**	1.02	0.94	OVMAAB036098
CAP**3017A**	1.02	0.94	OVMAAB036098
CNPH*2417A**	0.99	0.95	OVMAAB036098
CNPH*3017A**	1.00	0.92	OVMAAB036098
CNPH*3117A**	1.02	0.94	OVMAAB036098
CNPV*2417A**	0.99	0.95	OVMAAB036098
CNPV*3017A**	1.00	0.92	OVMAAB036098
CNPV*3117A**	1.02	0.94	OVMAAB036098
CSPH*2412A**	1.00	0.96	OVMAAB036098
CSPH*3012A**	1.00	0.92	OVMAAB036098

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*2417A**	0.99	0.92	OVMAAB042112
CNPH*3017A**	1.00	0.92	OVMAAB042112
CNPH*3117A**	1.02	0.94	OVMAAB042112
CNPV*2417A**	0.99	0.92	OVMAAB042112
CNPV*3017A**	1.00	0.92	OVMAAB042112
CNPV*3117A**	1.02	0.94	OVMAAB042112
CSPH*2412A**	1.00	0.92	OVMAAB042112
CSPH*3012A**	1.00	0.92	OVMAAB042112

See notes on pg. 78

DETAILED COOLING CAPACITIES# (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
24ABC630A**30 Outdoor Section With CNPV*3117A** Indoor Section																			
875	72 (22.2)	34.09	16.61	1.91	32.58	16.09	2.11	31.00	15.56	2.33	29.32	15.00	2.59	27.51	14.40	2.88	25.53	13.76	3.22
	67 (19.4)	30.99	20.47	1.92	29.61	19.95	2.12	28.16	19.41	2.34	26.61	18.84	2.59	24.93	18.23	2.88	23.10	17.56	3.22
	63 (17.2)††	28.76	19.68	1.93	27.47	19.16	2.12	26.11	18.61	2.34	24.65	18.03	2.59	23.07	17.41	2.88	21.33	16.73	3.22
	62 (16.7)	28.31	24.28	1.93	27.08	23.74	2.12	25.80	23.16	2.34	24.56	24.56	2.59	23.28	23.28	2.88	21.87	21.87	3.21
	57 (13.9)	27.76	27.76	1.93	26.76	26.76	2.12	25.69	25.69	2.34	24.52	24.52	2.59	23.25	23.25	2.88	21.83	21.83	3.21
1000	72 (22.2)	34.67	17.49	1.96	33.09	16.96	2.15	31.45	16.42	2.38	29.71	15.86	2.63	27.83	15.25	2.93	25.79	14.60	3.26
	67 (19.4)	31.55	21.88	1.97	30.10	21.35	2.16	28.60	20.80	2.38	27.00	20.22	2.64	25.27	19.60	2.93	23.39	18.92	3.26
	63 (17.2)††	29.30	20.99	1.97	27.95	20.46	2.17	26.55	19.90	2.39	25.04	19.31	2.64	23.40	18.68	2.93	21.63	17.98	3.26
	62 (16.7)	29.03	28.77	1.97	27.89	27.89	2.16	26.74	26.74	2.39	25.50	25.50	2.64	24.14	24.14	2.93	22.64	22.64	3.26
	57 (13.9)	28.93	28.93	1.97	27.84	27.84	2.16	26.70	26.70	2.39	25.46	25.46	2.64	24.11	24.11	2.93	22.61	22.61	3.26
1125	72 (22.2)	35.09	18.33	2.00	33.45	17.80	2.20	31.76	17.25	2.42	29.97	16.67	2.68	28.04	16.06	2.97	25.96	15.41	3.31
	67 (19.4)	31.96	23.24	2.01	30.47	22.70	2.21	28.93	22.14	2.43	27.29	21.54	2.68	25.52	20.90	2.97	23.62	20.20	3.31
	63 (17.2)††	29.70	22.25	2.02	28.32	21.71	2.21	26.87	21.14	2.43	25.32	20.53	2.69	23.66	19.88	2.98	21.87	19.15	3.31
	62 (16.7)	29.93	29.93	2.02	28.78	28.78	2.21	27.57	27.57	2.43	26.26	26.26	2.68	24.83	24.83	2.97	23.26	23.26	3.31
	57 (13.9)	29.89	29.89	2.02	28.74	28.74	2.21	27.53	27.53	2.43	26.22	26.22	2.68	24.80	24.80	2.97	23.23	23.23	3.31

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*3117A**	1.00	1.00	
CAP**3014A**	0.98	0.98	
CAP**3017A**	0.98	0.98	
CAP**3614A**	0.98	0.98	
CAP**3617A**	0.98	0.98	
CAP**3619A**	0.98	1.02	
CAP**3621A**	0.98	0.98	
CAP**4221A**	0.99	1.03	
CAP**4224A**	0.99	1.03	
CAP**4817A**	1.01	1.01	
CAP**4821A**	1.01	1.01	
CAP**4823A**	1.01	1.01	
CAP**4824A**	1.01	1.01	
CNPF*3618A**	0.98	1.02	
CNPH*3017A**	0.98	0.98	
CNPH*3117A**	1.00	1.00	
CNPH*3617A**	0.98	0.98	
CNPH*4221A**	0.99	1.03	
CNPV*3014A**	0.98	0.98	
CNPV*3017A**	0.98	0.98	
CNPV*3617A**	0.98	0.98	
CNPV*3621A**	0.98	0.98	
CNPV*4217A**	0.99	1.04	
CNPV*4221A**	0.99	1.03	
CSPH*3012A**	0.99	1.03	
CSPH*3612A**	1.00	1.00	
CSPH*4212A**	1.00	1.00	
FB4CNF030	0.98	0.94	
FB4CNF030	0.98	0.94	
FB4CNF036	0.98	0.94	
FB4CNF036	0.98	0.94	
FE4AN(B,F)003	0.99	0.91	
FE4AN(B,F)005	1.01	0.93	
FE4ANF002	0.98	0.90	
FE5ANB004	1.01	0.94	
FF1ENP030	0.97	0.97	
FF1ENP031	0.99	0.95	

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
FF1ENP036	0.98	0.98	
FF1ENP037	0.99	0.95	
FV4BN(B,F)003	1.00	0.91	
FV4BN(B,F)005	1.03	0.90	
FV4BNF002	1.00	0.92	
FV4CN(B,F)003	0.99	0.91	
FV4CN(B,F)005	1.01	0.93	
FV4CNF002	0.98	0.90	
FX4CN(B,F)036	1.01	0.95	
FX4CN(B,F)042	1.01	1.00	
FX4CNF030	1.01	0.95	
FX4DN(B,F)031	0.99	0.92	
FX4DN(B,F)037	1.01	0.93	
FY4ANF030	0.99	1.02	
FY4ANF036	1.00	1.03	
FY4ANF042	1.01	1.03	
FY5BNF030	0.99	0.95	
FY5BNF030	0.98	0.94	
FY5BNF036	0.99	0.99	
FY5BNF036	0.98	0.98	
CAP**3014A**	0.97	0.89	58CV(A,X)070–12
CAP**3017A**	0.97	0.93	58CV(A,X)070–12
CAP**3614A**	0.97	0.93	58CV(A,X)070–12
CAP**3617A**	0.97	0.93	58CV(A,X)070–12
CNPH*3017A**	0.97	0.93	58CV(A,X)070–12
CNPH*3117A**	0.99	0.92	58CV(A,X)070–12
CNPH*3617A**	0.97	0.93	58CV(A,X)070–12
CNPH*4221A**	0.98	0.90	58CV(A,X)070–12
CNPV*3014A**	0.97	0.93	58CV(A,X)070–12
CNPV*3017A**	0.97	0.93	58CV(A,X)070–12
CNPV*3117A**	0.99	0.92	58CV(A,X)070–12
CNPV*3617A**	0.97	0.93	58CV(A,X)070–12
CNPV*4217A**	0.99	0.91	58CV(A,X)070–12
CSPH*3012A**	0.97	0.93	58CV(A,X)070–12
CSPH*3612A**	0.99	0.91	58CV(A,X)070–12
CSPH*4212A**	0.99	0.92	58CV(A,X)070–12
CAP**3017A**	0.97	0.90	58CV(A,X)090–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**3617A**	0.97	0.90	58CV(A,X)090–16
CAP**3621A**	0.97	0.90	58CV(A,X)090–16
CAP**4221A**	0.98	0.90	58CV(A,X)090–16
CAP**4817A**	1.01	0.94	58CV(A,X)090–16
CNPH*3017A**	0.97	0.90	58CV(A,X)090–16
CNPH*3117A**	0.99	0.92	58CV(A,X)090–16
CNPH*3617A**	0.97	0.90	58CV(A,X)090–16
CNPH*4221A**	0.98	0.90	58CV(A,X)090–16
CNPV*3017A**	0.97	0.90	58CV(A,X)090–16
CNPV*3117A**	0.99	0.92	58CV(A,X)090–16
CNPV*3617A**	0.97	0.90	58CV(A,X)090–16
CNPV*3621A**	0.97	0.90	58CV(A,X)090–16
CNPV*4217A**	0.99	0.91	58CV(A,X)090–16
CNPV*4221A**	0.98	0.90	58CV(A,X)090–16
CSPH*3012A**	0.98	0.90	58CV(A,X)090–16
CSPH*3612A**	0.99	0.92	58CV(A,X)090–16
CSPH*4212A**	0.99	0.92	58CV(A,X)090–16
CAP**3621A**	0.97	0.90	58CV(A,X)110–20
CAP**4221A**	0.98	0.90	58CV(A,X)110–20
CAP**4224A**	0.99	0.91	58CV(A,X)110–20
CAP**4821A**	1.01	0.94	58CV(A,X)110–20
CNPH*3017A**	0.97	0.90	58CV(A,X)110–20
CNPH*3117A**	0.99	0.92	58CV(A,X)110–20
CNPH*3617A**	0.97	0.90	58CV(A,X)110–20
CNPH*4221A**	0.99	0.91	58CV(A,X)110–20
CNPV*3621A**	0.97	0.90	58CV(A,X)110–20
CNPV*4221A**	0.99	0.91	58CV(A,X)110–20
CSPH*3012A**	0.98	0.90	58CV(A,X)110–20
CSPH*3612A**	0.99	0.92	58CV(A,X)110–20
CSPH*4212A**	1.00	0.92	58CV(A,X)110–20
CAP**4224A**	0.99	0.91	58CV(A,X)135–22
CAP**4824A**	1.01	0.94	58CV(A,X)135–22
CNPH*3017A**	0.97	0.90	58CV(A,X)135–22
CNPH*3117A**	0.99	0.92	58CV(A,X)135–22
CNPH*3617A**	0.97	0.90	58CV(A,X)135–22
CNPH*4221A**	0.99	0.91	58CV(A,X)135–22
CSPH*3012A**	0.98	0.90	58CV(A,X)135–22

DETAILED COOLING CAPACITIES# (CONT.)

24ABC630A30 Outdoor Section With CNPV*3117A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*3612A**	0.99	0.92	58CV(A,X)135–22
CSPH*4212A**	1.00	0.92	58CV(A,X)135–22
CAP**4224A**	0.99	0.91	58CV(A,X)155–22
CAP**4824A**	1.01	0.94	58CV(A,X)155–22
CNPH*3017A**	0.97	0.90	58CV(A,X)155–22
CNPH*3117A**	0.99	0.92	58CV(A,X)155–22
CNPH*3617A**	0.97	0.90	58CV(A,X)155–22
CNPH*4221A**	0.99	0.91	58CV(A,X)155–22
CSPH*3012A**	0.98	0.90	58CV(A,X)155–22
CSPH*3612A**	0.99	0.92	58CV(A,X)155–22
CSPH*4212A**	1.00	0.92	58CV(A,X)155–22
CAP**3619A**	0.98	0.94	58HDV040––12
CNPH*3017A**	0.99	0.95	58HDV040––12
CNPH*3117A**	0.99	0.95	58HDV040––12
CNPH*3617A**	0.99	0.95	58HDV040––12
CNPV*3017A**	0.99	0.95	58HDV040––12
CNPV*3117A**	1.01	0.97	58HDV040––12
CNPV*3617A**	0.99	0.95	58HDV040––12
CNPV*3621A**	0.99	0.95	58HDV040––12
CNPV*3717A**	1.01	0.97	58HDV040––12
CSPH*3012A**	0.97	0.93	58HDV040––12
CSPH*3612A**	0.99	0.95	58HDV040––12
CAP**3619A**	0.99	0.95	58HDV060––12
CNPH*3017A**	0.99	0.95	58HDV060––12
CNPH*3117A**	0.99	0.95	58HDV060––12
CNPH*3617A**	1.00	0.96	58HDV060––12
CNPV*3017A**	1.00	0.96	58HDV060––12
CNPV*3117A**	1.01	0.97	58HDV060––12
CNPV*3617A**	1.00	0.96	58HDV060––12
CNPV*3621A**	1.00	0.96	58HDV060––12
CNPV*3717A**	1.01	0.97	58HDV060––12
CSPH*3012A**	0.98	0.94	58HDV060––12
CSPH*3612A**	1.00	0.96	58HDV060––12
CAP**4823A**	1.03	0.96	58HDV080––20
CNPH*3017A**	0.99	0.95	58HDV080––20
CNPH*3117A**	0.99	0.92	58HDV080––20
CNPH*3617A**	1.00	0.96	58HDV080––20
CNPV*3621A**	1.01	0.97	58HDV080––20
CAP**4823A**	1.01	0.94	58HDV100––20
CAP**4824A**	1.01	0.94	58HDV100––20
CNPH*3017A**	0.99	0.95	58HDV100––20
CNPH*3117A**	0.99	0.92	58HDV100––20
CNPH*3617A**	1.00	0.96	58HDV100––20
CAP**3017A**	0.99	0.91	58ME(B,C)060–12
CAP**3617A**	0.99	0.91	58ME(B,C)060–12
CAP**3621A**	0.99	0.91	58ME(B,C)060–12
CAP**4221A**	1.00	0.92	58ME(B,C)060–12
CAP**4817A**	1.01	0.94	58ME(B,C)060–12
CNPH*3017A**	0.99	0.91	58ME(B,C)060–12
CNPH*3117A**	1.01	0.93	58ME(B,C)060–12
CNPH*3617A**	0.99	0.91	58ME(B,C)060–12
CNPH*4221A**	0.99	0.92	58ME(B,C)060–12
CNPV*3017A**	0.99	0.91	58ME(B,C)060–12
CNPV*3117A**	1.01	0.93	58ME(B,C)060–12
CNPV*3617A**	0.99	0.91	58ME(B,C)060–12
CNPV*3621A**	0.99	0.91	58ME(B,C)060–12
CNPV*4217A**	1.00	0.92	58ME(B,C)060–12
CNPV*4221A**	0.99	0.92	58ME(B,C)060–12

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*3012A**	0.99	0.91	58ME(B,C)060–12
CSPH*3612A**	1.01	0.93	58ME(B,C)060–12
CSPH*4212A**	1.01	0.94	58ME(B,C)060–12
CAP**3017A**	0.98	0.90	58ME(B,C)080–12
CAP**3617A**	0.99	0.91	58ME(B,C)080–12
CAP**3621A**	0.99	0.91	58ME(B,C)080–12
CAP**4221A**	0.99	0.92	58ME(B,C)080–12
CAP**4817A**	1.01	0.94	58ME(B,C)080–12
CNPH*3017A**	0.98	0.90	58ME(B,C)080–12
CNPH*3117A**	1.01	0.93	58ME(B,C)080–12
CNPH*3617A**	0.98	0.90	58ME(B,C)080–12
CNPH*4221A**	0.99	0.92	58ME(B,C)080–12
CNPV*3017A**	0.98	0.90	58ME(B,C)080–12
CNPV*3117A**	1.01	0.93	58ME(B,C)080–12
CNPV*3617A**	0.98	0.90	58ME(B,C)080–12
CNPV*3621A**	0.98	0.90	58ME(B,C)080–12
CNPV*4217A**	1.00	0.92	58ME(B,C)080–12
CNPV*4221A**	0.99	0.92	58ME(B,C)080–12
CSPH*3012A**	0.99	0.91	58ME(B,C)080–12
CSPH*3612A**	1.00	0.92	58ME(B,C)080–12
CSPH*4212A**	1.01	0.93	58ME(B,C)080–12
CAP**3017A**	0.99	0.91	58ME(B,C)080–16
CAP**3617A**	0.99	0.92	58ME(B,C)080–16
CAP**3621A**	0.99	0.92	58ME(B,C)080–16
CAP**4221A**	1.00	0.92	58ME(B,C)080–16
CAP**4817A**	1.01	0.94	58ME(B,C)080–16
CNPH*3017A**	0.99	0.91	58ME(B,C)080–16
CNPH*3117A**	1.01	0.94	58ME(B,C)080–16
CNPH*3617A**	0.99	0.91	58ME(B,C)080–16
CNPH*4221A**	1.00	0.92	58ME(B,C)080–16
CNPV*3017A**	0.99	0.91	58ME(B,C)080–16
CNPV*3117A**	1.01	0.94	58ME(B,C)080–16
CNPV*3617A**	0.99	0.91	58ME(B,C)080–16
CNPV*3621A**	0.99	0.91	58ME(B,C)080–16
CNPV*4217A**	1.01	0.93	58ME(B,C)080–16
CNPV*4221A**	1.00	0.92	58ME(B,C)080–16
CSPH*3012A**	0.99	0.91	58ME(B,C)080–16
CSPH*3612A**	1.01	0.93	58ME(B,C)080–16
CSPH*4212A**	1.01	0.94	58ME(B,C)080–16
CAP**3017A**	0.99	0.91	58MEB040–12
CAP**3617A**	0.99	0.91	58MEB040–12
CAP**3621A**	0.99	0.91	58MEB040–12
CAP**4221A**	0.99	0.92	58MEB040–12
CAP**4817A**	1.01	0.94	58MEB040–12
CNPH*3017A**	0.99	0.91	58MEB040–12
CNPH*3117A**	1.01	0.93	58MEB040–12
CNPH*3617A**	0.99	0.91	58MEB040–12
CNPH*4221A**	0.99	0.92	58MEB040–12
CNPV*3017A**	0.99	0.91	58MEB040–12
CNPV*3117A**	1.01	0.93	58MEB040–12
CNPV*3617A**	0.99	0.91	58MEB040–12
CNPV*3621A**	0.99	0.91	58MEB040–12
CNPV*4217A**	1.00	0.92	58MEB040–12
CNPV*4221A**	0.99	0.92	58MEB040–12
CSPH*3012A**	0.99	0.91	58MEB040–12
CSPH*3612A**	1.01	0.93	58MEB040–12
CSPH*4212A**	1.01	0.94	58MEB040–12
CNPV*3117A**	1.01	0.94	58MEC080–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*3717A**	1.01	0.94	58MEC080–16
CAP**3017A**	0.98	0.90	58MV(B,C)060–14
CAP**3617A**	0.98	0.90	58MV(B,C)060–14
CAP**3621A**	0.99	0.91	58MV(B,C)060–14
CAP**4221A**	0.99	0.91	58MV(B,C)060–14
CAP**4817A**	1.01	0.94	58MV(B,C)060–14
CNPH*3017A**	0.98	0.90	58MV(B,C)060–14
CNPH*3117A**	1.00	0.92	58MV(B,C)060–14
CNPH*3617A**	0.98	0.90	58MV(B,C)060–14
CNPH*4221A**	0.99	0.91	58MV(B,C)060–14
CNPV*3017A**	0.98	0.90	58MV(B,C)060–14
CNPV*3117A**	1.00	0.92	58MV(B,C)060–14
CNPV*3617A**	0.98	0.90	58MV(B,C)060–14
CNPV*3621A**	0.98	0.90	58MV(B,C)060–14
CNPV*4217A**	0.99	0.92	58MV(B,C)060–14
CNPV*4221A**	0.99	0.91	58MV(B,C)060–14
CSPH*3012A**	0.98	0.90	58MV(B,C)060–14
CSPH*3612A**	0.99	0.92	58MV(B,C)060–14
CSPH*4212A**	1.00	0.92	58MV(B,C)060–14
CAP**3621A**	0.97	0.89	58MV(B,C)080–14
CAP**4221A**	0.98	0.90	58MV(B,C)080–14
CAP**4224A**	0.98	0.90	58MV(B,C)080–14
CAP**4821A**	1.01	0.93	58MV(B,C)080–14
CNPH*3017A**	0.97	0.93	58MV(B,C)080–14
CNPH*3117A**	0.99	0.91	58MV(B,C)080–14
CNPH*3617A**	0.97	0.93	58MV(B,C)080–14
CNPH*4221A**	0.98	0.90	58MV(B,C)080–14
CNPV*3621A**	0.97	0.93	58MV(B,C)080–14
CNPV*4221A**	0.98	0.90	58MV(B,C)080–14
CNPV*4821A**	1.01	0.94	58MV(B,C)080–14
CSPH*3012A**	0.97	0.93	58MV(B,C)080–14
CSPH*3612A**	0.99	0.91	58MV(B,C)080–14
CSPH*4212A**	0.99	0.92	58MV(B,C)080–14
CAP**3621A**	0.97	0.90	58MV(B,C)080–20
CAP**4221A**	0.98	0.90	58MV(B,C)080–20
CAP**4224A**	0.98	0.90	58MV(B,C)080–20
CAP**4821A**	1.01	0.93	58MV(B,C)080–20
CNPH*3017A**	0.97	0.93	58MV(B,C)080–20
CNPH*3117A**	0.99	0.92	58MV(B,C)080–20
CNPH*3617A**	0.97	0.93	58MV(B,C)080–20
CNPH*4221A**	0.98	0.90	58MV(B,C)080–20
CNPV*3621A**	0.97	0.93	58MV(B,C)080–20
CNPV*4221A**	0.98	0.90	58MV(B,C)080–20
CNPV*4821A**	1.01	0.94	58MV(B,C)080–20
CSPH*3012A**	0.98	0.94	58MV(B,C)080–20
CSPH*3612A**	0.99	0.92	58MV(B,C)080–20
CSPH*4212A**	0.99	0.92	58MV(B,C)080–20
CAP**3621A**	0.97	0.89	58MV(B,C)100–20
CAP**4221A**	0.97	0.90	58MV(B,C)100–20
CAP**4224A**	0.97	0.90	58MV(B,C)100–20
CAP**4821A**	1.00	0.92	58MV(B,C)100–20
CNPH*3017A**	0.97	0.93	58MV(B,C)100–20
CNPH*3117A**	0.99	0.91	58MV(B,C)100–20
CNPH*3617A**	0.97	0.93	58MV(B,C)100–20
CNPH*4221A**	0.97	0.90	58MV(B,C)100–20
CNPV*3621A**	0.97	0.93	58MV(B,C)100–20
CNPV*4221A**	0.97	0.90	58MV(B,C)100–20
CNPV*4821A**	1.01	0.94	58MV(B,C)100–20

DETAILED COOLING CAPACITIES# (CONT.)

24ABC630A30 Outdoor Section With CNPV*3117A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*3012A**	0.97	0.93	58MV(B,C)100–20
CSPH*3612A**	0.99	0.91	58MV(B,C)100–20
CSPH*4212A**	0.99	0.91	58MV(B,C)100–20
CAP**4224A**	0.98	0.90	58MV(B,C)120–20
CAP**4824A**	1.01	0.94	58MV(B,C)120–20
CNPH*3017A**	0.97	0.90	58MV(B,C)120–20
CNPH*3117A**	0.99	0.92	58MV(B,C)120–20
CNPH*3617A**	0.97	0.90	58MV(B,C)120–20
CNPH*4221A**	0.99	0.91	58MV(B,C)120–20
CSPH*3012A**	0.98	0.90	58MV(B,C)120–20
CSPH*3612A**	0.99	0.92	58MV(B,C)120–20
CSPH*4212A**	1.00	0.92	58MV(B,C)120–20
CAP**4224A**	0.98	0.90	58MVB040–14
CAP**4824A**	1.01	0.93	58MVB040–14
CNPH*3017A**	0.97	0.93	58MVB040–14
CNPH*3117A**	0.99	0.92	58MVB040–14
CNPH*3617A**	0.97	0.93	58MVB040–14
CNPH*4221A**	0.98	0.90	58MVB040–14
CSPH*3012A**	0.97	0.93	58MVB040–14
CSPH*3612A**	0.99	0.91	58MVB040–14
CSPH*4212A**	0.99	0.92	58MVB040–14
CAP**3017A**	0.98	0.94	58PH*070–16
CAP**3617A**	0.98	0.94	58PH*070–16
CAP**3621A**	0.98	0.90	58PH*070–16
CAP**4221A**	0.99	0.95	58PH*070–16
CAP**4817A**	1.01	0.94	58PH*070–16
CNPH*3017A**	0.98	0.94	58PH*070–16
CNPH*3117A**	1.00	0.92	58PH*070–16
CNPH*3617A**	0.98	0.94	58PH*070–16
CNPH*4221A**	0.99	0.95	58PH*070–16
CNPV*3017A**	0.98	0.94	58PH*070–16
CNPV*3117A**	1.00	0.92	58PH*070–16
CNPV*3617A**	0.98	0.94	58PH*070–16
CNPV*3621A**	0.98	0.94	58PH*070–16
CNPV*4217A**	0.99	0.92	58PH*070–16
CNPV*4221A**	0.99	0.95	58PH*070–16
CSPH*3012A**	0.98	0.94	58PH*070–16
CSPH*3612A**	1.00	0.92	58PH*070–16
CSPH*4212A**	1.00	0.92	58PH*070–16
CAP**3621A**	0.99	0.91	58PH*090–16
CAP**4221A**	0.99	0.92	58PH*090–16
CAP**4224A**	0.99	0.92	58PH*090–16
CAP**4821A**	1.01	0.94	58PH*090–16
CNPH*3017A**	0.98	0.94	58PH*090–16
CNPH*3117A**	1.00	0.92	58PH*090–16
CNPH*3617A**	0.98	0.94	58PH*090–16
CNPH*4221A**	0.99	0.92	58PH*090–16
CNPV*3621A**	0.98	0.94	58PH*090–16
CNPV*4221A**	0.99	0.92	58PH*090–16
CSPH*3012A**	0.98	0.94	58PH*090–16
CSPH*3612A**	1.00	0.92	58PH*090–16
CSPH*4212A**	1.01	0.93	58PH*090–16
CAP**3017A**	0.98	0.90	58UVB060–14
CAP**3017A**	0.98	0.90	58UVB060–14
CAP**3617A**	0.98	0.90	58UVB060–14
CAP**3617A**	0.98	0.90	58UVB060–14
CAP**3621A**	0.99	0.91	58UVB060–14
CAP**3621A**	0.99	0.91	58UVB060–14

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4221A**	0.99	0.91	58UVB060–14
CAP**4221A**	0.99	0.91	58UVB060–14
CAP**4817A**	1.01	0.94	58UVB060–14
CAP**4817A**	1.01	0.94	58UVB060–14
CNPV*3017A**	0.98	0.90	58UVB060–14
CNPV*3017A**	0.98	0.90	58UVB060–14
CNPV*3117A**	1.00	0.92	58UVB060–14
CNPV*3117A**	1.00	0.92	58UVB060–14
CNPV*3617A**	0.98	0.90	58UVB060–14
CNPV*3617A**	0.98	0.90	58UVB060–14
CNPV*3621A**	0.98	0.90	58UVB060–14
CNPV*3621A**	0.98	0.90	58UVB060–14
CNPV*4217A**	0.99	0.92	58UVB060–14
CNPV*4217A**	0.99	0.92	58UVB060–14
CNPV*4221A**	0.99	0.91	58UVB060–14
CNPV*4221A**	0.99	0.91	58UVB060–14
CAP**3621A**	0.97	0.89	58UVB080–14
CAP**3621A**	0.97	0.89	58UVB080–14
CAP**4221A**	0.98	0.90	58UVB080–14
CAP**4221A**	0.98	0.90	58UVB080–14
CAP**4224A**	0.98	0.90	58UVB080–14
CAP**4224A**	0.98	0.90	58UVB080–14
CAP**4821A**	1.01	0.93	58UVB080–14
CAP**4821A**	1.01	0.93	58UVB080–14
CNPV*3621A**	0.97	0.93	58UVB080–14
CNPV*3621A**	0.97	0.93	58UVB080–14
CNPV*4221A**	0.98	0.90	58UVB080–14
CNPV*4221A**	0.98	0.90	58UVB080–14
CNPV*4821A**	1.01	0.94	58UVB080–14
CAP**3621A**	0.97	0.90	58UVB080–20
CAP**3621A**	0.97	0.90	58UVB080–20
CAP**4221A**	0.98	0.90	58UVB080–20
CAP**4221A**	0.98	0.90	58UVB080–20
CAP**4224A**	0.98	0.90	58UVB080–20
CAP**4224A**	0.98	0.90	58UVB080–20
CAP**4821A**	1.01	0.93	58UVB080–20
CAP**4821A**	1.01	0.93	58UVB080–20
CNPV*3621A**	0.97	0.93	58UVB080–20
CNPV*3621A**	0.97	0.93	58UVB080–20
CNPV*4221A**	0.98	0.90	58UVB080–20
CNPV*4221A**	0.98	0.90	58UVB080–20
CNPV*4821A**	1.01	0.94	58UVB080–20
CAP**3621A**	0.97	0.89	58UVB100–20
CAP**3621A**	0.97	0.89	58UVB100–20
CAP**4221A**	0.97	0.90	58UVB100–20
CAP**4221A**	0.97	0.90	58UVB100–20
CAP**4224A**	0.97	0.90	58UVB100–20
CAP**4224A**	0.97	0.90	58UVB100–20
CAP**4821A**	1.00	0.92	58UVB100–20
CAP**4821A**	1.00	0.92	58UVB100–20
CNPV*3621A**	0.97	0.93	58UVB100–20
CNPV*3621A**	0.97	0.93	58UVB100–20
CNPV*4221A**	0.97	0.90	58UVB100–20
CNPV*4221A**	0.97	0.90	58UVB100–20
CNPV*4821A**	1.01	0.94	58UVB100–20
CAP**4224A**	0.98	0.90	58UVB120–20
CAP**4224A**	0.98	0.90	58UVB120–20
CAP**4824A**	1.01	0.94	58UVB120–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4824A**	1.01	0.94	58UVB120–20
CAP**3017A**	0.97	0.90	58VLR105–12
CAP**3617A**	0.98	0.90	58VLR105–12
CAP**3621A**	0.98	0.90	58VLR105–12
CAP**4221A**	0.99	0.91	58VLR105–12
CAP**4817A**	1.01	0.94	58VLR105–12
CNPH*3017A**	0.98	0.90	58VLR105–12
CNPH*3617A**	0.98	0.90	58VLR105–12
CNPH*4221A**	0.99	0.91	58VLR105–12
CNPV*3017A**	0.98	0.90	58VLR105–12
CNPV*3117A**	1.00	0.92	58VLR105–12
CNPV*3617A**	0.98	0.90	58VLR105–12
CNPV*3621A**	0.98	0.90	58VLR105–12
CNPV*4217A**	0.99	0.92	58VLR105–12
CNPV*4221A**	0.99	0.91	58VLR105–12
CSPH*3012A**	0.98	0.90	58VLR105–12
CSPH*3612A**	0.99	0.92	58VLR105–12
CSPH*4212A**	1.00	0.92	58VLR105–12
CAP**3017A**	0.97	0.89	58VMR105–12
CAP**3617A**	0.97	0.89	58VMR105–12
CAP**3621A**	0.97	0.89	58VMR105–12
CAP**4221A**	0.97	0.90	58VMR105–12
CAP**4817A**	1.01	0.93	58VMR105–12
CNPH*3017A**	0.97	0.89	58VMR105–12
CNPH*3617A**	0.97	0.89	58VMR105–12
CNPH*4221A**	0.97	0.90	58VMR105–12
CNPV*3017A**	0.97	0.89	58VMR105–12
CNPV*3117A**	0.99	0.91	58VMR105–12
CNPV*3617A**	0.97	0.89	58VMR105–12
CNPV*3621A**	0.97	0.89	58VMR105–12
CNPV*4217A**	0.98	0.90	58VMR105–12
CNPV*4221A**	0.97	0.90	58VMR105–12
CSPH*3012A**	0.97	0.89	58VMR105–12
CSPH*3612A**	0.98	0.90	58VMR105–12
CSPH*4212A**	0.99	0.91	58VMR105–12
CAP**3017A**	0.99	0.93	59*N*A060V17**14
CAP**3617A**	0.99	0.94	59*N*A060V17**14
CAP**3619A**	0.99	0.94	59*N*A060V17**14
CAP**3621A**	0.99	0.94	59*N*A060V17**14
CNPH*3017A**	0.99	0.93	59*N*A060V17**14
CNPH*3117A**	1.01	0.94	59*N*A060V17**14
CNPH*3617A**	0.99	0.93	59*N*A060V17**14
CNPV*3017A**	0.99	0.93	59*N*A060V17**14
CNPV*3117A**	1.01	0.94	59*N*A060V17**14
CNPV*3617A**	0.99	0.93	59*N*A060V17**14
CNPV*3621A**	0.99	0.94	59*N*A060V17**14
CNPV*3717A**	1.02	0.94	59*N*A060V17**14
CSPH*3012A**	0.99	0.94	59*N*A060V17**14
CSPH*3612A**	1.01	0.93	59*N*A060V17**14
CAP**3017A**	0.99	0.94	59*N*A080V17**14
CAP**3617A**	1.00	0.92	59*N*A080V17**14
CAP**3619A**	1.00	0.92	59*N*A080V17**14
CAP**3621A**	1.00	0.92	59*N*A080V17**14
CNPH*3017A**	0.99	0.94	59*N*A080V17**14
CNPH*3117A**	1.01	0.94	59*N*A080V17**14
CNPH*3617A**	0.99	0.94	59*N*A080V17**14
CNPV*3017A**	0.99	0.94	59*N*A080V17**14
CNPV*3117A**	1.01	0.94	59*N*A080V17**14

DETAILED COOLING CAPACITIES# (CONT.)

24ABC630A30 Outdoor Section With CNPV*3117A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*3617A**	0.99	0.94	59*N*A080V17**14
CNPV*3621A**	0.99	0.94	59*N*A080V17**14
CNPV*3717A**	1.03	0.93	59*N*A080V17**14
CSPH*3012A**	1.00	0.94	59*N*A080V17**14
CSPH*3612A**	1.01	0.94	59*N*A080V17**14
CAP**3619A**	1.00	0.92	59*N*A100V21**20
CAP**3621A**	1.00	0.92	59*N*A100V21**20
CNPH*3017A**	1.00	0.94	59*N*A100V21**20
CNPH*3117A**	1.02	0.94	59*N*A100V21**20
CNPH*3617A**	1.00	0.94	59*N*A100V21**20
CNPV*3621A**	1.00	0.94	59*N*A100V21**20
CSPH*3012A**	1.01	0.95	59*N*A100V21**20
CSPH*3612A**	1.02	0.94	59*N*A100V21**20
CNPH*3017A**	1.00	0.92	59*N*A120V24**22
CNPH*3117A**	1.02	0.93	59*N*A120V24**22
CNPH*3617A**	1.00	0.92	59*N*A120V24**22
CSPH*3012A**	1.00	0.92	59*N*A120V24**22
CSPH*3612A**	1.01	0.92	59*N*A120V24**22
CAP**3017A**	0.99	0.94	59*P5A060E17**14
CAP**3617A**	1.00	0.94	59*P5A060E17**14
CAP**3619A**	1.00	0.94	59*P5A060E17**14
CAP**3621A**	1.01	0.95	59*P5A060E17**14
CNPH*3017A**	1.00	0.94	59*P5A060E17**14
CNPH*3117A**	1.02	0.94	59*P5A060E17**14
CNPH*3617A**	1.00	0.94	59*P5A060E17**14
CNPV*3017A**	1.00	0.94	59*P5A060E17**14
CNPV*3117A**	1.02	0.94	59*P5A060E17**14
CNPV*3617A**	1.00	0.94	59*P5A060E17**14
CNPV*3621A**	1.00	0.94	59*P5A060E17**14
CNPV*3717A**	1.03	0.96	59*P5A060E17**14
CSPH*3012A**	1.00	0.94	59*P5A060E17**14
CSPH*3612A**	1.02	0.94	59*P5A060E17**14
CAP**3017A**	1.01	0.95	59*P5A080E17**16
CAP**3617A**	1.01	0.95	59*P5A080E17**16
CAP**3619A**	1.01	0.95	59*P5A080E17**16
CAP**3621A**	1.01	0.96	59*P5A080E17**16
CNPH*3017A**	1.01	0.95	59*P5A080E17**16
CNPH*3117A**	1.03	0.95	59*P5A080E17**16
CNPH*3617A**	1.01	0.95	59*P5A080E17**16
CNPV*3017A**	1.01	0.95	59*P5A080E17**16
CNPV*3117A**	1.03	0.95	59*P5A080E17**16
CNPV*3617A**	1.01	0.95	59*P5A080E17**16
CNPV*3621A**	1.01	0.95	59*P5A080E17**16
CNPV*3717A**	1.04	0.96	59*P5A080E17**16
CSPH*3012A**	1.01	0.95	59*P5A080E17**16
CSPH*3612A**	1.03	0.95	59*P5A080E17**16
CAP**3017A**	0.99	0.92	OVLAAB036098
CAP**3617A**	0.99	0.92	OVLAAB036098
CNPH*3017A**	0.99	0.95	OVLAAB036098
CNPH*3117A**	1.01	0.97	OVLAAB036098
CNPH*3617A**	0.99	0.95	OVLAAB036098
CNPV*3017A**	0.99	0.95	OVLAAB036098
CNPV*3117A**	1.01	0.97	OVLAAB036098
CNPV*3617A**	0.99	0.95	OVLAAB036098
CNPV*3621A**	0.99	0.95	OVLAAB036098
CNPV*3717A**	1.01	0.94	OVLAAB036098
CSPH*3012A**	0.99	0.95	OVLAAB036098
CSPH*3612A**	1.01	0.97	OVLAAB036098
CNPH*3017A**	1.00	0.96	OVLAAB048112

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*3117A**	1.01	0.97	OVLAAB048112
CNPH*3617A**	1.00	0.96	OVLAAB048112
CNPV*3621A**	1.00	0.96	OVLAAB048112
CSPH*3012A**	1.01	0.97	OVLAAB048112
CSPH*3612A**	0.87	0.84	OVLAAB048112
CAP**3017A**	0.99	0.92	OVMAAB036098
CAP**3617A**	0.99	0.92	OVMAAB036098
CNPH*3017A**	0.99	0.95	OVMAAB036098
CNPH*3117A**	1.01	0.97	OVMAAB036098
CNPH*3617A**	0.99	0.95	OVMAAB036098
CNPV*3017A**	0.99	0.95	OVMAAB036098
CNPV*3117A**	1.01	0.97	OVMAAB036098
CNPV*3617A**	0.99	0.95	OVMAAB036098
CNPV*3621A**	0.99	0.95	OVMAAB036098
CNPV*3717A**	1.01	0.97	OVMAAB036098
CSPH*3012A**	1.00	0.96	OVMAAB036098
CSPH*3612A**	1.01	0.97	OVMAAB036098
CNPH*3017A**	1.00	0.96	OVMAAB042112
CNPH*3117A**	1.01	0.94	OVMAAB042112
CNPH*3617A**	1.00	0.96	OVMAAB042112
CNPV*3017A**	1.00	0.96	OVMAAB042112
CNPV*3117A**	1.01	0.97	OVMAAB042112
CNPV*3617A**	1.00	0.96	OVMAAB042112
CNPV*3621A**	1.00	0.96	OVMAAB042112
CNPV*3717A**	1.01	0.94	OVMAAB042112
CSPH*3012A**	1.00	0.96	OVMAAB042112
CSPH*3612A**	1.01	0.94	OVMAAB042112

See notes on pg. 78

DETAILED COOLING CAPACITIES# (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
24ABC636A**30 Outdoor Section With CNPV*3717A** Indoor Section																			
1050	72 (22.2)	41.06	20.24	2.39	39.22	19.60	2.65	37.27	18.94	2.95	35.20	18.24	3.28	33.01	17.50	3.66	30.65	16.73	4.11
	67 (19.4)	37.33	24.93	2.37	35.65	24.28	2.63	33.87	23.61	2.93	31.96	22.90	3.26	29.95	22.15	3.65	27.79	21.36	4.09
	63 (17.2)††	34.65	23.97	2.36	33.08	23.32	2.62	31.40	22.64	2.92	29.62	21.92	3.25	27.73	21.17	3.64	25.71	20.37	4.09
	62 (16.7)	34.09	29.55	2.36	32.58	28.89	2.62	31.00	28.17	2.91	29.47	29.47	3.25	27.95	27.95	3.64	26.29	26.29	4.09
	57 (13.9)	33.38	33.38	2.35	32.16	32.16	2.62	30.85	30.85	2.91	29.43	29.43	3.25	27.91	27.91	3.64	26.25	26.25	4.09
1200	72 (22.2)	41.77	21.32	2.45	39.84	20.66	2.72	37.82	19.99	3.01	35.67	19.28	3.35	33.39	18.53	3.73	30.96	17.75	4.17
	67 (19.4)	38.02	26.65	2.43	36.25	25.99	2.70	34.40	25.30	2.99	32.44	24.58	3.32	30.35	23.82	3.71	28.13	23.01	4.15
	63 (17.2)††	35.31	25.57	2.42	33.66	24.91	2.69	31.93	24.22	2.98	30.09	23.48	3.31	28.13	22.71	3.70	26.05	21.89	4.15
	62 (16.7)	34.94	31.83	2.42	33.53	33.53	2.69	32.12	32.12	2.98	30.60	30.60	3.32	28.97	28.97	3.70	27.21	27.21	4.15
	57 (13.9)	34.80	34.80	2.42	33.47	33.47	2.68	32.07	32.07	2.98	30.55	30.55	3.32	28.93	28.93	3.70	27.17	27.17	4.15
1350	72 (22.2)	42.28	22.34	2.52	40.29	21.68	2.78	38.19	20.99	3.08	35.98	20.27	3.41	33.65	19.52	3.79	31.16	18.72	4.23
	67 (19.4)	38.51	28.29	2.50	36.70	27.62	2.76	34.80	26.93	3.05	32.78	26.19	3.39	30.65	25.41	3.77	28.39	24.57	4.22
	63 (17.2)††	35.80	27.10	2.48	34.11	26.43	2.75	32.32	25.72	3.04	30.43	24.97	3.38	28.44	24.18	3.76	26.32	23.32	4.21
	62 (16.7)	36.01	36.01	2.48	34.61	34.61	2.75	33.12	33.12	3.05	31.51	31.51	3.38	29.80	29.80	3.77	27.94	27.94	4.21
	57 (13.9)	35.96	35.96	2.48	34.56	34.56	2.75	33.08	33.08	3.04	31.47	31.47	3.38	29.76	29.76	3.77	27.91	27.91	4.21

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*3717A**	1.00	1.00	
CAP**3614A**	0.95	0.99	
CAP**3617A**	0.96	1.00	
CAP**3619A**	0.96	1.00	
CAP**3621A**	0.96	1.00	
CAP**4221A**	0.97	1.01	
CAP**4224A**	0.97	1.01	
CAP**4817A**	0.99	1.03	
CAP**4821A**	0.98	1.03	
CAP**4823A**	0.98	1.03	
CAP**4824A**	0.98	1.03	
CAP**6021A**	0.99	0.99	
CAP**6024A**	0.99	0.99	
CAP**6025A**	1.01	1.01	
CNPF*3618A**	0.96	1.05	
CNPF*4818A**	0.98	1.03	
CNPH*3617A**	0.96	1.00	
CNPH*4221A**	0.97	1.01	
CNPH*4321A**	1.01	1.01	
CNPH*4821A**	0.99	0.99	
CNPV*3617A**	0.96	1.00	
CNPV*3621A**	0.96	1.00	
CNPV*4217A**	0.98	1.03	
CNPV*4221A**	0.97	1.01	
CNPV*4324A**	1.00	1.00	
CNPV*4821A**	0.99	1.03	
CNPV*4824A**	0.99	1.03	
CSPH*3612A**	0.98	1.03	
CSPH*4212A**	0.99	1.03	
CSPH*4812A**	0.99	1.04	
FB4CNF036	0.96	0.96	
FB4CNF036	0.96	1.00	
FB4CNF042	0.99	0.95	
FB4CNF042	0.99	0.99	
FE4AN(B,F)003	0.97	0.89	
FE4AN(B,F)005	0.99	0.92	
FE4ANB006	1.01	0.89	

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
FE4ANF002	0.96	0.96	
FE5ANB004	1.01	0.89	
FF1ENP036	0.96	1.05	
FF1ENP037	0.97	1.01	
FV4BN(B,F)003	0.98	0.90	
FV4BN(B,F)005	1.01	0.89	
FV4BNB006	1.02	0.89	
FV4BNF002	0.97	0.93	
FV4CN(B,F)003	0.97	0.89	
FV4CN(B,F)005	0.99	0.92	
FV4CNB006	1.01	0.89	
FV4CNF002	0.96	0.96	
FX4CN(B,F)036	0.99	0.95	
FX4CN(B,F)042	1.00	0.96	
FX4CN(B,F)048	1.01	1.00	
FX4DN(B,F)037	0.99	0.92	
FX4DN(B,F)043	0.99	0.92	
FX4DN(B,F)049	1.01	0.93	
FY4ANF036	0.97	1.01	
FY4ANF042	0.99	1.01	
FY4ANF048	1.01	1.03	
FY5BNF036	0.97	1.01	
FY5BNF036	0.97	1.01	
FY5BNF042	0.98	0.98	
FY5BNF042	0.98	1.03	
CAP**3614A**	0.95	0.95	58CV(A,X)070–12
CAP**3617A**	0.95	0.95	58CV(A,X)070–12
CAP**4817A**	0.98	0.94	58CV(A,X)070–12
CNPH*3617A**	0.95	0.95	58CV(A,X)070–12
CNPH*4221A**	0.96	0.96	58CV(A,X)070–12
CNPH*4321A**	1.00	0.92	58CV(A,X)070–12
CNPH*4821A**	0.98	0.94	58CV(A,X)070–12
CNPV*3617A**	0.95	0.95	58CV(A,X)070–12
CNPV*3717A**	0.99	0.95	58CV(A,X)070–12
CNPV*4217A**	0.97	0.93	58CV(A,X)070–12
CSPH*3612A**	0.97	0.93	58CV(A,X)070–12
CSPH*4212A**	0.98	0.94	58CV(A,X)070–12

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*4812A**	0.98	0.94	58CV(A,X)070–12
CAP**3617A**	0.96	0.92	58CV(A,X)090–16
CAP**3621A**	0.96	0.92	58CV(A,X)090–16
CAP**4221A**	0.97	0.93	58CV(A,X)090–16
CAP**4817A**	0.98	0.91	58CV(A,X)090–16
CAP**4821A**	0.98	0.90	58CV(A,X)090–16
CNPH*3617A**	0.95	0.92	58CV(A,X)090–16
CNPH*4221A**	0.97	0.93	58CV(A,X)090–16
CNPH*4321A**	1.00	0.91	58CV(A,X)090–16
CNPH*4821A**	0.98	0.90	58CV(A,X)090–16
CNPV*3617A**	0.95	0.95	58CV(A,X)090–16
CNPV*3621A**	0.95	0.92	58CV(A,X)090–16
CNPV*3717A**	0.99	0.91	58CV(A,X)090–16
CNPV*4217A**	0.97	0.93	58CV(A,X)090–16
CNPV*4221A**	0.97	0.93	58CV(A,X)090–16
CNPV*4821A**	0.98	0.90	58CV(A,X)090–16
CSPH*3612A**	0.98	0.90	58CV(A,X)090–16
CSPH*4212A**	0.98	0.91	58CV(A,X)090–16
CSPH*4812A**	0.98	0.91	58CV(A,X)090–16
CAP**3621A**	0.96	0.92	58CV(A,X)110–20
CAP**4221A**	0.97	0.93	58CV(A,X)110–20
CAP**4224A**	0.97	0.89	58CV(A,X)110–20
CAP**4821A**	0.98	0.90	58CV(A,X)110–20
CAP**4824A**	0.98	0.90	58CV(A,X)110–20
CAP**6021A**	0.99	0.91	58CV(A,X)110–20
CNPH*3617A**	0.95	0.92	58CV(A,X)110–20
CNPH*4221A**	0.97	0.93	58CV(A,X)110–20
CNPH*4321A**	1.01	0.91	58CV(A,X)110–20
CNPH*4821A**	0.98	0.91	58CV(A,X)110–20
CNPV*3621A**	0.96	0.92	58CV(A,X)110–20
CNPV*4221A**	0.97	0.93	58CV(A,X)110–20
CNPV*4821A**	0.98	0.91	58CV(A,X)110–20
CNPV*4824A**	0.98	0.91	58CV(A,X)110–20
CSPH*3612A**	0.98	0.90	58CV(A,X)110–20
CSPH*4212A**	0.98	0.91	58CV(A,X)110–20
CSPH*4812A**	0.99	0.91	58CV(A,X)110–20
CAP**4224A**	0.97	0.89	58CV(A,X)135–22

DETAILED COOLING CAPACITIES# (CONT.)

24ABC636A30 Outdoor Section With CNPV*3717A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4824A**	0.98	0.90	58CV(A,X)135–22
CAP**6024A**	0.99	0.91	58CV(A,X)135–22
CAP**6025A**	0.99	0.91	58CV(A,X)135–22
CNPH*3617A**	0.95	0.92	58CV(A,X)135–22
CNPH*4221A**	0.97	0.93	58CV(A,X)135–22
CNPH*4321A**	1.01	0.91	58CV(A,X)135–22
CNPH*4821A**	0.98	0.91	58CV(A,X)135–22
CNPV*4324A**	1.01	0.89	58CV(A,X)135–22
CNPV*4824A**	0.98	0.91	58CV(A,X)135–22
CSPH*3612A**	0.98	0.90	58CV(A,X)135–22
CSPH*4212A**	0.98	0.91	58CV(A,X)135–22
CSPH*4812A**	0.99	0.91	58CV(A,X)135–22
CAP**4224A**	0.97	0.90	58CV(A,X)155–22
CAP**4824A**	0.98	0.91	58CV(A,X)155–22
CAP**6024A**	0.99	0.91	58CV(A,X)155–22
CAP**6025A**	0.99	0.91	58CV(A,X)155–22
CNPH*3617A**	0.96	0.92	58CV(A,X)155–22
CNPH*4221A**	0.97	0.90	58CV(A,X)155–22
CNPH*4321A**	1.01	0.89	58CV(A,X)155–22
CNPH*4821A**	0.98	0.91	58CV(A,X)155–22
CNPV*4324A**	1.01	0.89	58CV(A,X)155–22
CNPV*4824A**	0.98	0.91	58CV(A,X)155–22
CSPH*3612A**	0.98	0.91	58CV(A,X)155–22
CSPH*4212A**	0.99	0.91	58CV(A,X)155–22
CSPH*4812A**	0.99	0.91	58CV(A,X)155–22
CAP**3619A**	0.95	0.99	58HDV040––12
CNPH*3617A**	0.97	0.97	58HDV040––12
CNPH*4221A**	0.98	0.98	58HDV040––12
CNPH*4321A**	0.98	0.94	58HDV040––12
CNPV*3617A**	0.96	0.96	58HDV040––12
CNPV*3621A**	0.97	0.97	58HDV040––12
CNPV*3717A**	1.00	1.00	58HDV040––12
CNPV*4217A**	0.98	0.98	58HDV040––12
CNPV*4221A**	0.98	0.98	58HDV040––12
CSPH*3612A**	0.97	0.97	58HDV040––12
CSPH*4212A**	0.98	0.98	58HDV040––12
CAP**3619A**	0.96	0.96	58HDV060––12
CAP**4823A**	0.98	0.98	58HDV060––12
CNPH*3617A**	0.97	0.97	58HDV060––12
CNPH*4221A**	0.98	0.98	58HDV060––12
CNPH*4321A**	0.98	0.94	58HDV060––12
CNPV*3617A**	0.97	0.97	58HDV060––12
CNPV*3621A**	0.97	0.97	58HDV060––12
CNPV*3717A**	1.01	0.97	58HDV060––12
CNPV*4217A**	0.99	0.99	58HDV060––12
CNPV*4221A**	0.98	0.98	58HDV060––12
CSPH*3612A**	0.98	0.98	58HDV060––12
CSPH*4212A**	0.99	0.99	58HDV060––12
CAP**4823A**	0.99	0.95	58HDV080––20
CNPH*3617A**	0.97	0.93	58HDV080––20
CNPH*4221A**	0.98	0.94	58HDV080––20
CNPH*4321A**	0.98	0.90	58HDV080––20
CNPV*3621A**	0.98	0.94	58HDV080––20
CNPV*4221A**	0.99	0.95	58HDV080––20
CNPV*4324A**	1.01	0.93	58HDV080––20
CSPH*3612A**	0.99	0.95	58HDV080––20
CSPH*4212A**	1.00	0.96	58HDV080––20
CAP**6024A**	0.99	0.91	58HDV100––20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**6025A**	0.99	0.91	58HDV100––20
CNPH*3617A**	0.97	0.93	58HDV100––20
CNPH*4221A**	0.98	0.94	58HDV100––20
CNPH*4321A**	0.98	0.90	58HDV100––20
CNPV*4324A**	1.01	0.93	58HDV100––20
CSPH*3612A**	0.99	0.95	58HDV100––20
CSPH*4212A**	0.99	0.92	58HDV100––20
CAP**3617A**	0.97	0.93	58ME(B,C)060–12
CAP**3621A**	0.97	0.93	58ME(B,C)060–12
CAP**4221A**	0.98	0.94	58ME(B,C)060–12
CAP**4817A**	0.99	0.92	58ME(B,C)060–12
CAP**4821A**	0.99	0.91	58ME(B,C)060–12
CNPH*3617A**	0.96	0.96	58ME(B,C)060–12
CNPH*4221A**	0.97	0.93	58ME(B,C)060–12
CNPH*4321A**	1.02	0.92	58ME(B,C)060–12
CNPH*4821A**	0.99	0.92	58ME(B,C)060–12
CNPV*3617A**	0.96	0.96	58ME(B,C)060–12
CNPV*3621A**	0.96	0.96	58ME(B,C)060–12
CNPV*3717A**	1.00	0.92	58ME(B,C)060–12
CNPV*4217A**	0.98	0.94	58ME(B,C)060–12
CNPV*4221A**	0.97	0.93	58ME(B,C)060–12
CNPV*4821A**	0.99	0.92	58ME(B,C)060–12
CSPH*3612A**	0.98	0.94	58ME(B,C)060–12
CSPH*4212A**	0.99	0.92	58ME(B,C)060–12
CSPH*4812A**	0.99	0.92	58ME(B,C)060–12
CAP**3617A**	0.96	0.92	58ME(B,C)080–12
CAP**3621A**	0.97	0.93	58ME(B,C)080–12
CAP**4221A**	0.97	0.93	58ME(B,C)080–12
CAP**4817A**	0.99	0.91	58ME(B,C)080–12
CAP**4821A**	0.98	0.91	58ME(B,C)080–12
CNPH*3617A**	0.96	0.92	58ME(B,C)080–12
CNPH*4221A**	0.97	0.93	58ME(B,C)080–12
CNPH*4321A**	1.01	0.92	58ME(B,C)080–12
CNPH*4821A**	0.99	0.91	58ME(B,C)080–12
CNPV*3617A**	0.96	0.96	58ME(B,C)080–12
CNPV*3621A**	0.96	0.92	58ME(B,C)080–12
CNPV*3717A**	0.99	0.92	58ME(B,C)080–12
CNPV*4217A**	0.98	0.94	58ME(B,C)080–12
CNPV*4221A**	0.97	0.93	58ME(B,C)080–12
CNPV*4821A**	0.99	0.91	58ME(B,C)080–12
CSPH*3612A**	0.98	0.91	58ME(B,C)080–12
CSPH*4212A**	0.99	0.92	58ME(B,C)080–12
CSPH*4812A**	0.99	0.92	58ME(B,C)080–12
CAP**3617A**	0.97	0.92	58ME(B,C)080–16
CAP**3621A**	0.97	0.93	58ME(B,C)080–16
CAP**4221A**	0.97	0.93	58ME(B,C)080–16
CAP**4817A**	0.99	0.92	58ME(B,C)080–16
CAP**4821A**	0.99	0.91	58ME(B,C)080–16
CNPH*3617A**	0.96	0.96	58ME(B,C)080–16
CNPH*4221A**	0.97	0.93	58ME(B,C)080–16
CNPH*4321A**	1.01	0.92	58ME(B,C)080–16
CNPH*4821A**	0.99	0.92	58ME(B,C)080–16
CNPV*3617A**	0.96	0.96	58ME(B,C)080–16
CNPV*3621A**	0.96	0.96	58ME(B,C)080–16
CNPV*3717A**	1.00	0.92	58ME(B,C)080–16
CNPV*4217A**	0.98	0.94	58ME(B,C)080–16
CNPV*4221A**	0.97	0.93	58ME(B,C)080–16
CNPV*4821A**	0.99	0.92	58ME(B,C)080–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*3612A**	0.98	0.94	58ME(B,C)080–16
CSPH*4212A**	0.99	0.92	58ME(B,C)080–16
CSPH*4812A**	0.99	0.92	58ME(B,C)080–16
CAP**3621A**	0.97	0.89	58ME(B,C)100–20
CAP**4221A**	0.97	0.90	58ME(B,C)100–20
CAP**4224A**	0.97	0.90	58ME(B,C)100–20
CAP**4821A**	0.98	0.91	58ME(B,C)100–20
CAP**4824A**	0.98	0.91	58ME(B,C)100–20
CAP**6021A**	0.99	0.91	58ME(B,C)100–20
CNPH*3617A**	0.95	0.92	58ME(B,C)100–20
CNPH*4221A**	0.97	0.89	58ME(B,C)100–20
CNPH*4321A**	1.01	0.90	58ME(B,C)100–20
CNPH*4821A**	0.99	0.91	58ME(B,C)100–20
CNPV*3621A**	0.95	0.92	58ME(B,C)100–20
CNPV*4221A**	0.97	0.89	58ME(B,C)100–20
CNPV*4821A**	0.99	0.91	58ME(B,C)100–20
CNPV*4824A**	0.99	0.91	58ME(B,C)100–20
CSPH*3612A**	0.98	0.91	58ME(B,C)100–20
CSPH*4212A**	0.99	0.91	58ME(B,C)100–20
CSPH*4812A**	0.99	0.91	58ME(B,C)100–20
CAP**3617A**	0.97	0.93	58MEB040–12
CAP**3621A**	0.97	0.93	58MEB040–12
CAP**4221A**	0.97	0.93	58MEB040–12
CAP**4817A**	0.99	0.91	58MEB040–12
CAP**4821A**	0.98	0.91	58MEB040–12
CNPH*3617A**	0.96	0.92	58MEB040–12
CNPH*4221A**	0.97	0.93	58MEB040–12
CNPH*4321A**	1.01	0.92	58MEB040–12
CNPH*4821A**	0.99	0.91	58MEB040–12
CNPV*3617A**	0.96	0.96	58MEB040–12
CNPV*3621A**	0.96	0.92	58MEB040–12
CNPV*3717A**	1.00	0.92	58MEB040–12
CNPV*4217A**	0.98	0.94	58MEB040–12
CNPV*4221A**	0.97	0.93	58MEB040–12
CNPV*4821A**	0.99	0.91	58MEB040–12
CSPH*3612A**	0.98	0.91	58MEB040–12
CSPH*4212A**	0.99	0.91	58MEB040–12
CSPH*4812A**	0.99	0.92	58MEB040–12
CAP**3617A**	0.96	0.92	58MV(B,C)060–14
CAP**3621A**	0.96	0.92	58MV(B,C)060–14
CAP**4221A**	0.97	0.93	58MV(B,C)060–14
CAP**4817A**	0.99	0.91	58MV(B,C)060–14
CAP**4821A**	0.98	0.91	58MV(B,C)060–14
CNPH*3617A**	0.96	0.96	58MV(B,C)060–14
CNPH*4221A**	0.97	0.93	58MV(B,C)060–14
CNPH*4321A**	1.01	0.91	58MV(B,C)060–14
CNPH*4821A**	0.98	0.91	58MV(B,C)060–14
CNPV*3617A**	0.96	0.96	58MV(B,C)060–14
CNPV*3621A**	0.96	0.96	58MV(B,C)060–14
CNPV*3717A**	0.99	0.92	58MV(B,C)060–14
CNPV*4217A**	0.98	0.94	58MV(B,C)060–14
CNPV*4221A**	0.97	0.93	58MV(B,C)060–14
CNPV*4821A**	0.99	0.91	58MV(B,C)060–14
CSPH*3612A**	0.98	0.94	58MV(B,C)060–14
CSPH*4212A**	0.99	0.91	58MV(B,C)060–14
CSPH*4812A**	0.99	0.91	58MV(B,C)060–14
CAP**3621A**	0.96	0.96	58MV(B,C)080–14
CAP**4221A**	0.97	0.93	58MV(B,C)080–14

DETAILED COOLING CAPACITIES# (CONT.)

24ABC636A30 Outdoor Section With CNPV*3717A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4224A**	0.97	0.93	58MV(B,C)080−14
CAP**4821A**	0.98	0.94	58MV(B,C)080−14
CAP**4824A**	0.98	0.94	58MV(B,C)080−14
CAP**6021A**	0.99	0.91	58MV(B,C)080−14
CNPH*3617A**	0.95	0.95	58MV(B,C)080−14
CNPH*4221A**	0.97	0.93	58MV(B,C)080−14
CNPH*4321A**	1.00	0.92	58MV(B,C)080−14
CNPH*4821A**	0.98	0.94	58MV(B,C)080−14
CNPV*3621A**	0.95	0.95	58MV(B,C)080−14
CNPV*4221A**	0.97	0.97	58MV(B,C)080−14
CNPV*4821A**	0.98	0.94	58MV(B,C)080−14
CNPV*4824A**	0.98	0.94	58MV(B,C)080−14
CSPH*3612A**	0.98	0.94	58MV(B,C)080−14
CSPH*4212A**	0.98	0.94	58MV(B,C)080−14
CSPH*4812A**	0.99	0.95	58MV(B,C)080−14
CAP**3621A**	0.95	0.92	58MV(B,C)080−20
CAP**4221A**	0.97	0.93	58MV(B,C)080−20
CAP**4224A**	0.97	0.93	58MV(B,C)080−20
CAP**4821A**	0.98	0.94	58MV(B,C)080−20
CAP**4824A**	0.98	0.90	58MV(B,C)080−20
CAP**6021A**	0.99	0.91	58MV(B,C)080−20
CNPH*3617A**	0.95	0.95	58MV(B,C)080−20
CNPH*4221A**	0.97	0.93	58MV(B,C)080−20
CNPH*4321A**	1.00	0.91	58MV(B,C)080−20
CNPH*4821A**	0.98	0.90	58MV(B,C)080−20
CNPV*3621A**	0.95	0.95	58MV(B,C)080−20
CNPV*4221A**	0.97	0.93	58MV(B,C)080−20
CNPV*4821A**	0.98	0.90	58MV(B,C)080−20
CNPV*4824A**	0.98	0.90	58MV(B,C)080−20
CSPH*3612A**	0.98	0.94	58MV(B,C)080−20
CSPH*4212A**	0.98	0.91	58MV(B,C)080−20
CSPH*4812A**	0.98	0.91	58MV(B,C)080−20
CAP**3621A**	0.96	0.92	58MV(B,C)100−20
CAP**4221A**	0.97	0.93	58MV(B,C)100−20
CAP**4224A**	0.97	0.93	58MV(B,C)100−20
CAP**4821A**	0.98	0.90	58MV(B,C)100−20
CAP**4824A**	0.98	0.91	58MV(B,C)100−20
CAP**6021A**	0.99	0.91	58MV(B,C)100−20
CNPH*3617A**	0.96	0.96	58MV(B,C)100−20
CNPH*4221A**	0.97	0.93	58MV(B,C)100−20
CNPH*4321A**	1.01	0.91	58MV(B,C)100−20
CNPH*4821A**	0.98	0.91	58MV(B,C)100−20
CNPV*3621A**	0.96	0.96	58MV(B,C)100−20
CNPV*4221A**	0.97	0.93	58MV(B,C)100−20
CNPV*4821A**	0.98	0.91	58MV(B,C)100−20
CNPV*4824A**	0.98	0.91	58MV(B,C)100−20
CSPH*3612A**	0.98	0.94	58MV(B,C)100−20
CSPH*4212A**	0.98	0.91	58MV(B,C)100−20
CSPH*4812A**	0.99	0.91	58MV(B,C)100−20
CAP**4224A**	0.97	0.89	58MV(B,C)120−20
CAP**4824A**	0.98	0.90	58MV(B,C)120−20
CAP**6024A**	0.99	0.91	58MV(B,C)120−20
CAP**6025A**	0.99	0.91	58MV(B,C)120−20
CNPH*3617A**	0.95	0.92	58MV(B,C)120−20
CNPH*4221A**	0.97	0.93	58MV(B,C)120−20
CNPH*4321A**	1.00	0.91	58MV(B,C)120−20
CNPH*4821A**	0.98	0.91	58MV(B,C)120−20
CNPV*4324A**	1.01	0.91	58MV(B,C)120−20
CNPV*4824A**	0.98	0.91	58MV(B,C)120−20
CSPH*3612A**	0.98	0.90	58MV(B,C)120−20
CSPH*4212A**	0.98	0.91	58MV(B,C)120−20
CSPH*4812A**	0.99	0.91	58MV(B,C)120−20
CAP**4224A**	0.96	0.92	58MVB040−14
CAP**4824A**	0.97	0.93	58MVB040−14
CAP**6024A**	0.99	0.91	58MVB040−14
CAP**6025A**	0.99	0.91	58MVB040−14
CNPH*3617A**	0.95	0.95	58MVB040−14
CNPH*4221A**	0.96	0.96	58MVB040−14
CNPH*4321A**	1.00	0.92	58MVB040−14
CNPH*4821A**	0.98	0.94	58MVB040−14
CNPV*4324A**	1.00	0.92	58MVB040−14
CNPV*4824A**	0.98	0.94	58MVB040−14
CSPH*3612A**	0.97	0.93	58MVB040−14
CSPH*4212A**	0.98	0.94	58MVB040−14
CSPH*4812A**	0.98	0.94	58MVB040−14
CAP**3614A**	0.95	0.99	58PH*045−08
CAP**3617A**	0.95	0.95	58PH*045−08
CAP**4817A**	0.98	0.98	58PH*045−08
CNPH*3617A**	0.95	0.95	58PH*045−08
CNPH*4221A**	0.97	0.97	58PH*045−08
CNPH*4321A**	1.01	0.97	58PH*045−08
CNPH*4821A**	0.98	0.98	58PH*045−08
CNPV*3617A**	0.95	0.99	58PH*045−08
CNPV*3717A**	0.99	0.99	58PH*045−08
CNPV*4217A**	0.97	1.01	58PH*045−08
CSPH*3612A**	0.98	0.98	58PH*045−08
CSPH*4212A**	0.98	0.98	58PH*045−08
CSPH*4812A**	0.99	0.99	58PH*045−08
CAP**3617A**	0.96	0.96	58PH*070−16
CAP**3621A**	0.96	0.96	58PH*070−16
CAP**4221A**	0.97	0.97	58PH*070−16
CAP**4817A**	0.98	0.98	58PH*070−16
CAP**4821A**	0.98	0.98	58PH*070−16
CNPH*3617A**	0.95	0.95	58PH*070−16
CNPH*4221A**	0.97	0.97	58PH*070−16
CNPH*4321A**	1.01	0.95	58PH*070−16
CNPH*4821A**	0.98	0.94	58PH*070−16
CNPV*3617A**	0.95	0.95	58PH*070−16
CNPV*3621A**	0.95	0.95	58PH*070−16
CNPV*3717A**	0.99	0.95	58PH*070−16
CNPV*4217A**	0.97	0.97	58PH*070−16
CNPV*4221A**	0.97	0.97	58PH*070−16
CNPV*4821A**	0.98	0.94	58PH*070−16
CSPH*3612A**	0.98	0.98	58PH*070−16
CSPH*4212A**	0.98	0.94	58PH*070−16
CSPH*4812A**	0.99	0.95	58PH*070−16
CAP**3621A**	0.97	0.93	58PH*090−16
CAP**4221A**	0.97	0.90	58PH*090−16
CAP**4224A**	0.98	0.90	58PH*090−16
CAP**4821A**	0.99	0.91	58PH*090−16
CAP**4824A**	0.99	0.91	58PH*090−16
CAP**6021A**	0.99	0.91	58PH*090−16
CNPH*3617A**	0.96	0.92	58PH*090−16
CNPH*4221A**	0.97	0.93	58PH*090−16
CNPH*4321A**	1.01	0.92	58PH*090−16
CNPH*4821A**	0.99	0.91	58PH*090−16
CNPV*3621A**	0.96	0.92	58PH*090−16
CNPV*4221A**	0.97	0.93	58PH*090−16
CNPV*4821A**	0.99	0.91	58PH*090−16
CNPV*4824A**	0.99	0.91	58PH*090−16
CSPH*3612A**	0.98	0.91	58PH*090−16
CSPH*4212A**	0.99	0.91	58PH*090−16
CSPH*4812A**	0.99	0.92	58PH*090−16
CAP**3621A**	0.97	0.93	58PH*110−20
CAP**4221A**	0.98	0.90	58PH*110−20
CAP**4224A**	0.98	0.90	58PH*110−20
CAP**4821A**	0.99	0.91	58PH*110−20
CAP**4824A**	0.99	0.92	58PH*110−20
CAP**6021A**	0.99	0.91	58PH*110−20
CNPH*3617A**	0.96	0.92	58PH*110−20
CNPH*4221A**	0.98	0.90	58PH*110−20
CNPH*4321A**	1.02	0.92	58PH*110−20
CNPH*4821A**	0.99	0.92	58PH*110−20
CNPV*3621A**	0.97	0.93	58PH*110−20
CNPV*4221A**	0.98	0.90	58PH*110−20
CNPV*4821A**	0.99	0.92	58PH*110−20
CNPV*4824A**	0.99	0.92	58PH*110−20
CSPH*3612A**	0.99	0.91	58PH*110−20
CSPH*4212A**	0.99	0.92	58PH*110−20
CSPH*4812A**	1.00	0.92	58PH*110−20
CAP**3617A**	0.96	0.92	58UVB060−14
CAP**3617A**	0.96	0.92	58UVB060−14
CAP**3621A**	0.96	0.92	58UVB060−14
CAP**3621A**	0.96	0.92	58UVB060−14
CAP**4221A**	0.97	0.93	58UVB060−14
CAP**4221A**	0.97	0.93	58UVB060−14
CAP**4817A**	0.99	0.91	58UVB060−14
CAP**4817A**	0.99	0.91	58UVB060−14
CAP**4821A**	0.98	0.91	58UVB060−14
CAP**4821A**	0.98	0.91	58UVB060−14
CNPV*3617A**	0.96	0.96	58UVB060−14
CNPV*3617A**	0.96	0.96	58UVB060−14
CNPV*3621A**	0.96	0.96	58UVB060−14
CNPV*3621A**	0.96	0.96	58UVB060−14
CNPV*3717A**	0.99	0.92	58UVB060−14
CNPV*3717A**	0.99	0.92	58UVB060−14
CNPV*4217A**	0.98	0.94	58UVB060−14
CNPV*4217A**	0.98	0.94	58UVB060−14
CNPV*4221A**	0.97	0.93	58UVB060−14
CNPV*4221A**	0.97	0.93	58UVB060−14
CNPV*4821A**	0.98	0.91	58UVB060−14
CNPV*4821A**	0.98	0.91	58UVB060−14
CAP**3621A**	0.96	0.96	58UVB080−14
CAP**3621A**	0.96	0.96	58UVB080−14
CAP**4221A**	0.97	0.93	58UVB080−14
CAP**4221A**	0.97	0.93	58UVB080−14
CAP**4224A**	0.97	0.93	58UVB080−14
CAP**4224A**	0.97	0.93	58UVB080−14
CAP**4821A**	0.98	0.94	58UVB080−14
CAP**4821A**	0.98	0.94	58UVB080−14
CAP**4824A**	0.98	0.94	58UVB080−14
CAP**4824A**	0.98	0.94	58UVB080−14
CAP**6021A**	0.99	0.91	58UVB080−14
CAP**6021A**	0.99	0.91	58UVB080−14

DETAILED COOLING CAPACITIES# (CONT.)

24ABC636A30 Outdoor Section With CNPV*3717A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*3621A**	0.95	0.95	58UVB080–14
CNPV*3621A**	0.95	0.95	58UVB080–14
CNPV*4221A**	0.97	0.97	58UVB080–14
CNPV*4221A**	0.97	0.97	58UVB080–14
CNPV*4821A**	0.98	0.94	58UVB080–14
CNPV*4821A**	0.98	0.94	58UVB080–14
CNPV*4824A**	0.98	0.94	58UVB080–14
CNPV*4824A**	0.98	0.94	58UVB080–14
CAP**3621A**	0.95	0.92	58UVB080–20
CAP**3621A**	0.95	0.92	58UVB080–20
CAP**4221A**	0.97	0.93	58UVB080–20
CAP**4221A**	0.97	0.93	58UVB080–20
CAP**4224A**	0.97	0.93	58UVB080–20
CAP**4224A**	0.97	0.93	58UVB080–20
CAP**4821A**	0.98	0.94	58UVB080–20
CAP**4821A**	0.98	0.94	58UVB080–20
CAP**4824A**	0.98	0.90	58UVB080–20
CAP**4824A**	0.98	0.90	58UVB080–20
CAP**6021A**	0.99	0.91	58UVB080–20
CAP**6021A**	0.99	0.91	58UVB080–20
CNPV*3621A**	0.95	0.95	58UVB080–20
CNPV*3621A**	0.95	0.95	58UVB080–20
CNPV*4221A**	0.97	0.93	58UVB080–20
CNPV*4221A**	0.97	0.93	58UVB080–20
CNPV*4821A**	0.98	0.90	58UVB080–20
CNPV*4821A**	0.98	0.90	58UVB080–20
CNPV*4824A**	0.98	0.90	58UVB080–20
CNPV*4824A**	0.98	0.90	58UVB080–20
CAP**3621A**	0.96	0.92	58UVB100–20
CAP**3621A**	0.96	0.92	58UVB100–20
CAP**4221A**	0.97	0.93	58UVB100–20
CAP**4221A**	0.97	0.93	58UVB100–20
CAP**4224A**	0.97	0.93	58UVB100–20
CAP**4224A**	0.97	0.93	58UVB100–20
CAP**4821A**	0.98	0.90	58UVB100–20
CAP**4821A**	0.98	0.90	58UVB100–20
CAP**4824A**	0.98	0.91	58UVB100–20
CAP**4824A**	0.98	0.91	58UVB100–20
CAP**6021A**	0.99	0.91	58UVB100–20
CAP**6021A**	0.99	0.91	58UVB100–20
CNPV*3621A**	0.96	0.96	58UVB100–20
CNPV*3621A**	0.96	0.96	58UVB100–20
CNPV*4221A**	0.97	0.93	58UVB100–20
CNPV*4221A**	0.97	0.93	58UVB100–20
CNPV*4821A**	0.98	0.91	58UVB100–20
CNPV*4821A**	0.98	0.91	58UVB100–20
CNPV*4824A**	0.98	0.91	58UVB100–20
CNPV*4824A**	0.98	0.91	58UVB100–20
CAP**4224A**	0.97	0.89	58UVB120–20
CAP**4224A**	0.97	0.89	58UVB120–20
CAP**4824A**	0.98	0.90	58UVB120–20
CAP**4824A**	0.98	0.90	58UVB120–20
CAP**6024A**	0.99	0.91	58UVB120–20
CAP**6024A**	0.99	0.91	58UVB120–20
CAP**6025A**	0.99	0.91	58UVB120–20
CAP**6025A**	0.99	0.91	58UVB120–20
CNPV*4324A**	1.01	0.91	58UVB120–20
CNPV*4324A**	1.01	0.91	58UVB120–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*4324A**	1.01	0.91	58UVB120–20
CNPV*4824A**	0.98	0.91	58UVB120–20
CNPV*4824A**	0.98	0.91	58UVB120–20
CAP**3617A**	0.96	0.92	58VLR105–12
CAP**3621A**	0.96	0.92	58VLR105–12
CAP**4221A**	0.97	0.93	58VLR105–12
CAP**4817A**	0.99	0.95	58VLR105–12
CAP**4821A**	0.98	0.94	58VLR105–12
CNPH*3617A**	0.96	0.92	58VLR105–12
CNPH*4221A**	0.97	0.93	58VLR105–12
CNPH*4821A**	0.98	0.91	58VLR105–12
CNPV*3617A**	0.96	0.96	58VLR105–12
CNPV*3621A**	0.96	0.92	58VLR105–12
CNPV*3717A**	0.99	0.92	58VLR105–12
CNPV*4217A**	0.98	0.94	58VLR105–12
CNPV*4221A**	0.97	0.93	58VLR105–12
CNPV*4821A**	0.98	0.91	58VLR105–12
CSPH*3612A**	0.98	0.94	58VLR105–12
CSPH*4212A**	0.99	0.91	58VLR105–12
CSPH*4812A**	0.99	0.91	58VLR105–12
CAP**3621A**	0.96	0.89	58VLR120–20
CAP**4221A**	0.97	0.89	58VLR120–20
CAP**4224A**	0.97	0.89	58VLR120–20
CAP**4821A**	0.98	0.90	58VLR120–20
CAP**4824A**	0.98	0.90	58VLR120–20
CAP**6021A**	0.99	0.91	58VLR120–20
CNPH*3617A**	0.95	0.92	58VLR120–20
CNPH*4221A**	0.97	0.89	58VLR120–20
CNPH*4821A**	0.98	0.91	58VLR120–20
CNPV*3621A**	0.95	0.92	58VLR120–20
CNPV*4221A**	0.97	0.89	58VLR120–20
CNPV*4821A**	0.98	0.91	58VLR120–20
CNPV*4824A**	0.98	0.91	58VLR120–20
CSPH*3612A**	0.98	0.90	58VLR120–20
CSPH*4212A**	0.98	0.91	58VLR120–20
CSPH*4812A**	0.99	0.91	58VLR120–20
CAP**3617A**	0.95	0.91	58VMR105–12
CAP**3621A**	0.95	0.92	58VMR105–12
CAP**4221A**	0.96	0.92	58VMR105–12
CAP**4817A**	0.98	0.90	58VMR105–12
CAP**4821A**	0.97	0.90	58VMR105–12
CNPH*3617A**	0.95	0.91	58VMR105–12
CNPH*4221A**	0.96	0.92	58VMR105–12
CNPH*4821A**	0.97	0.90	58VMR105–12
CNPV*3617A**	0.95	0.91	58VMR105–12
CNPV*3621A**	0.95	0.91	58VMR105–12
CNPV*3717A**	0.98	0.91	58VMR105–12
CNPV*4217A**	0.97	0.93	58VMR105–12
CNPV*4221A**	0.96	0.92	58VMR105–12
CNPV*4821A**	0.97	0.90	58VMR105–12
CSPH*3612A**	0.97	0.93	58VMR105–12
CSPH*4212A**	0.98	0.90	58VMR105–12
CSPH*4812A**	0.98	0.90	58VMR105–12
CAP**3621A**	0.95	0.92	58VMR120–20
CAP**4221A**	0.96	0.89	58VMR120–20
CAP**4224A**	0.96	0.89	58VMR120–20
CAP**4821A**	0.97	0.90	58VMR120–20
CAP**4824A**	0.98	0.90	58VMR120–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**6021A**	0.99	0.91	58VMR120–20
CNPH*3617A**	0.95	0.92	58VMR120–20
CNPH*4221A**	0.96	0.92	58VMR120–20
CNPH*4821A**	0.98	0.90	58VMR120–20
CNPV*3621A**	0.95	0.92	58VMR120–20
CNPV*4221A**	0.96	0.92	58VMR120–20
CNPV*4821A**	0.98	0.90	58VMR120–20
CNPV*4824A**	0.98	0.90	58VMR120–20
CSPH*3612A**	0.98	0.90	58VMR120–20
CSPH*4212A**	0.98	0.90	58VMR120–20
CSPH*4812A**	0.98	0.91	58VMR120–20
CAP**3617A**	0.95	0.92	59*N*A060V17**14
CAP**3619A**	0.95	0.92	59*N*A060V17**14
CAP**3621A**	0.96	0.92	59*N*A060V17**14
CAP**4221A**	0.97	0.93	59*N*A060V17**14
CNPH*3617A**	0.95	0.92	59*N*A060V17**14
CNPH*4221A**	0.97	0.93	59*N*A060V17**14
CNPH*4321A**	0.99	0.93	59*N*A060V17**14
CNPV*3617A**	0.95	0.92	59*N*A060V17**14
CNPV*3621A**	0.95	0.92	59*N*A060V17**14
CNPV*3717A**	0.99	0.93	59*N*A060V17**14
CNPV*4217A**	0.97	0.93	59*N*A060V17**14
CNPV*4221A**	0.97	0.93	59*N*A060V17**14
CSPH*3612A**	0.98	0.92	59*N*A060V17**14
CSPH*4212A**	0.98	0.93	59*N*A060V17**14
CAP**3617A**	0.96	0.91	59*N*A080V17**14
CAP**3619A**	0.96	0.91	59*N*A080V17**14
CAP**3621A**	0.96	0.91	59*N*A080V17**14
CAP**4221A**	0.97	0.91	59*N*A080V17**14
CNPH*3617A**	0.96	0.92	59*N*A080V17**14
CNPH*4221A**	0.97	0.91	59*N*A080V17**14
CNPH*4321A**	0.99	0.92	59*N*A080V17**14
CNPV*3617A**	0.96	0.92	59*N*A080V17**14
CNPV*3621A**	0.96	0.92	59*N*A080V17**14
CNPV*3717A**	0.99	0.92	59*N*A080V17**14
CNPV*4217A**	0.98	0.92	59*N*A080V17**14
CNPV*4221A**	0.97	0.91	59*N*A080V17**14
CSPH*3612A**	0.98	0.92	59*N*A080V17**14
CSPH*4212A**	0.98	0.93	59*N*A080V17**14
CAP**3619A**	0.97	0.91	59*N*A100V21**20
CAP**3621A**	0.97	0.91	59*N*A100V21**20
CAP**4221A**	0.97	0.92	59*N*A100V21**20
CAP**4224A**	0.97	0.92	59*N*A100V21**20
CNPH*3617A**	0.96	0.92	59*N*A100V21**20
CNPH*4221A**	0.97	0.92	59*N*A100V21**20
CNPH*4321A**	1.00	0.92	59*N*A100V21**20
CNPV*3621A**	0.96	0.92	59*N*A100V21**20
CNPV*4221A**	0.97	0.92	59*N*A100V21**20
CNPV*4324A**	1.00	0.92	59*N*A100V21**20
CSPH*3612A**	0.98	0.93	59*N*A100V21**20
CSPH*4212A**	0.99	0.91	59*N*A100V21**20
CAP**4224A**	0.97	0.90	59*N*A120V24**22
CNPH*3617A**	0.96	0.91	59*N*A120V24**22
CNPH*4221A**	0.97	0.92	59*N*A120V24**22
CNPH*4321A**	1.00	0.92	59*N*A120V24**22
CNPV*4324A**	1.00	0.91	59*N*A120V24**22
CSPH*3612A**	0.98	0.91	59*N*A120V24**22
CSPH*4212A**	0.99	0.91	59*N*A120V24**22

DETAILED COOLING CAPACITIES# (CONT.)

24ABC636A30 Outdoor Section With CNPV*3717A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**3617A**	0.97	0.93	59*P5A060E17**14
CAP**3619A**	0.97	0.93	59*P5A060E17**14
CAP**3621A**	0.97	0.93	59*P5A060E17**14
CAP**4221A**	0.98	0.94	59*P5A060E17**14
CNPH*3617A**	0.97	0.93	59*P5A060E17**14
CNPH*4221A**	0.98	0.94	59*P5A060E17**14
CNPH*4321A**	1.01	0.95	59*P5A060E17**14
CNPV*3617A**	0.97	0.93	59*P5A060E17**14
CNPV*3621A**	0.97	0.93	59*P5A060E17**14
CNPV*3717A**	1.00	0.94	59*P5A060E17**14
CNPV*4217A**	0.98	0.94	59*P5A060E17**14
CNPV*4221A**	0.98	0.94	59*P5A060E17**14
CSPH*3612A**	0.99	0.93	59*P5A060E17**14
CSPH*4212A**	0.99	0.94	59*P5A060E17**14
CAP**3617A**	0.97	0.91	59*P5A080E17**16
CAP**3619A**	0.97	0.91	59*P5A080E17**16
CAP**3621A**	0.97	0.91	59*P5A080E17**16
CAP**4221A**	0.97	0.92	59*P5A080E17**16
CNPH*3617A**	0.96	0.92	59*P5A080E17**16
CNPH*4221A**	0.97	0.92	59*P5A080E17**16
CNPH*4321A**	1.00	0.92	59*P5A080E17**16
CNPV*3617A**	0.96	0.92	59*P5A080E17**16
CNPV*3621A**	0.96	0.92	59*P5A080E17**16
CNPV*3717A**	1.00	0.92	59*P5A080E17**16
CNPV*4217A**	0.98	0.92	59*P5A080E17**16
CNPV*4221A**	0.97	0.92	59*P5A080E17**16
CSPH*3612A**	0.98	0.93	59*P5A080E17**16
CSPH*4212A**	0.99	0.93	59*P5A080E17**16
CAP**3617A**	0.96	0.92	OVLAAB036098
CNPH*3617A**	0.96	0.96	OVLAAB036098
CNPH*4221A**	0.97	0.97	OVLAAB036098
CNPH*4321A**	0.99	0.95	OVLAAB036098
CNPH*4321A**	0.99	0.95	OVLAAB036098
CNPV*3617A**	0.96	0.96	OVLAAB036098
CNPV*3621A**	0.96	0.96	OVLAAB036098
CNPV*3717A**	0.99	0.95	OVLAAB036098
CNPV*4217A**	0.98	0.94	OVLAAB036098
CNPV*4221A**	0.97	0.97	OVLAAB036098
CSPH*3612A**	0.98	0.94	OVLAAB036098
CSPH*4212A**	0.99	0.95	OVLAAB036098
CAP**3621A**	0.97	0.93	OVLAAB048112
CAP**4221A**	0.98	0.94	OVLAAB048112
CNPH*3617A**	0.97	0.97	OVLAAB048112
CNPH*4221A**	0.98	0.94	OVLAAB048112
CNPH*4321A**	1.01	0.97	OVLAAB048112
CNPH*4321A**	1.01	0.97	OVLAAB048112
CNPV*3621A**	0.97	0.97	OVLAAB048112
CNPV*4221A**	0.98	0.94	OVLAAB048112
CNPV*4324A**	1.01	0.93	OVLAAB048112
CSPH*3612A**	0.99	0.95	OVLAAB048112
CSPH*4212A**	1.00	0.96	OVLAAB048112
CNPH*3617A**	0.99	0.95	OVLAAB060154
CNPH*4221A**	1.00	0.96	OVLAAB060154
CNPH*4321A**	1.03	0.95	OVLAAB060154
CNPH*4321A**	1.03	0.95	OVLAAB060154
CNPV*4324A**	1.01	0.93	OVLAAB060154
CSPH*3612A**	1.01	0.97	OVLAAB060154
CSPH*4212A**	1.01	0.93	OVLAAB060154
CAP**3617A**	0.97	0.93	OVMAAB036098
CNPH*3617A**	0.96	0.96	OVMAAB036098
CNPH*4221A**	0.97	0.97	OVMAAB036098
CNPH*4321A**	1.00	0.96	OVMAAB036098
CNPH*4321A**	1.00	0.96	OVMAAB036098
CNPV*3617A**	0.96	0.96	OVMAAB036098
CNPV*3621A**	0.97	0.97	OVMAAB036098
CNPV*3717A**	1.00	0.96	OVMAAB036098
CNPV*4217A**	0.98	0.94	OVMAAB036098
CNPV*4221A**	0.97	0.97	OVMAAB036098
CSPH*3612A**	0.98	0.94	OVMAAB036098
CSPH*4212A**	0.99	0.95	OVMAAB036098
CAP**3617A**	0.97	0.93	OVMAAB042112
CNPH*3617A**	0.97	0.93	OVMAAB042112
CNPH*4221A**	0.98	0.94	OVMAAB042112
CNPH*4321A**	1.00	0.92	OVMAAB042112
CNPH*4321A**	1.00	0.92	OVMAAB042112
CNPV*3617A**	0.97	0.93	OVMAAB042112
CNPV*3621A**	0.97	0.93	OVMAAB042112
CNPV*3717A**	1.00	0.92	OVMAAB042112
CNPV*4217A**	0.98	0.94	OVMAAB042112
CNPV*4221A**	0.98	0.94	OVMAAB042112
CSPH*3612A**	0.99	0.95	OVMAAB042112
CSPH*4212A**	0.99	0.95	OVMAAB042112

See notes on pg. 78

DETAILED COOLING CAPACITIES# (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
24ABC642A**30 Outdoor Section With CNPV*4324A** Indoor Section																			
1225	72 (22.2)	49.58	24.05	2.77	47.31	23.28	3.07	44.88	22.46	3.42	42.30	21.59	3.80	39.58	20.70	4.23	36.71	19.77	4.70
	67 (19.4)	45.17	29.64	2.75	43.10	28.86	3.05	40.90	28.04	3.38	38.55	27.18	3.76	36.07	26.27	4.19	33.47	25.33	4.66
	63 (17.2)††	41.97	28.52	2.74	40.06	27.75	3.03	38.02	26.93	3.36	35.83	26.06	3.74	33.53	25.16	4.17	31.10	24.21	4.64
	62 (16.7)	41.32	35.16	2.74	39.49	34.36	3.03	37.56	33.49	3.36	35.65	35.65	3.74	33.78	33.78	4.17	31.76	31.76	4.64
	57 (13.9)	40.45	40.45	2.73	38.96	38.96	3.03	37.34	37.34	3.36	35.60	35.60	3.74	33.73	33.73	4.17	31.72	31.72	4.64
1400	72 (22.2)	50.40	25.29	2.85	48.02	24.50	3.15	45.48	23.66	3.49	42.82	22.79	3.87	39.99	21.88	4.30	37.02	20.94	4.77
	67 (19.4)	45.95	31.63	2.82	43.80	30.84	3.12	41.50	30.00	3.46	39.07	29.12	3.84	36.51	28.20	4.26	33.83	27.23	4.74
	63 (17.2)††	42.74	30.38	2.81	40.75	29.59	3.10	38.61	28.75	3.44	36.36	27.87	3.82	33.97	26.94	4.24	31.47	25.96	4.71
	62 (16.7)	42.31	37.80	2.81	40.55	40.55	3.10	38.82	38.82	3.44	36.94	36.94	3.82	34.93	34.93	4.25	32.78	32.78	4.72
	57 (13.9)	42.10	42.10	2.81	40.50	40.50	3.10	38.76	38.76	3.44	36.89	36.89	3.82	34.89	34.89	4.25	32.74	32.74	4.72
1575	72 (22.2)	50.98	26.46	2.92	48.52	25.66	3.22	45.91	24.82	3.56	43.16	23.93	3.95	40.25	23.01	4.37	37.22	22.06	4.85
	67 (19.4)	46.53	33.54	2.90	44.31	32.73	3.19	41.95	31.88	3.53	39.45	30.98	3.91	36.83	30.02	4.34	34.11	29.02	4.81
	63 (17.2)††	43.31	32.15	2.88	41.25	31.35	3.17	39.06	30.49	3.51	36.74	29.58	3.89	34.30	28.62	4.31	31.77	27.60	4.78
	62 (16.7)	43.52	43.52	2.88	41.82	41.82	3.18	39.96	39.96	3.52	37.98	37.98	3.90	35.86	35.86	4.33	33.58	33.58	4.80
	57 (13.9)	43.46	43.46	2.88	41.76	41.76	3.18	39.91	39.91	3.52	37.93	37.93	3.90	35.81	35.81	4.33	33.55	33.55	4.80

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*4324A**	1.00	1.00	
CAP**4221A**	0.96	1.01	
CAP**4224A**	0.96	1.01	
CAP**4817A**	0.99	0.99	
CAP**4821A**	0.98	0.98	
CAP**4823A**	0.98	0.98	
CAP**4824A**	0.98	0.98	
CAP**6021A**	1.00	1.00	
CAP**6024A**	1.00	1.00	
CAP**6025A**	1.00	1.00	
CNPF*4818A**	0.98	0.98	
CNPH*4221A**	0.96	0.96	
CNPH*4321A**	1.00	1.00	
CNPH*4821A**	0.99	0.99	
CNPH*6024A**	1.00	1.00	
CNPV*4217A**	0.98	0.98	
CNPV*4221A**	0.96	0.96	
CNPV*4821A**	0.99	0.99	
CNPV*4824A**	0.99	0.99	
CNPV*6024A**	1.00	1.00	
CSPH*4212A**	0.99	0.99	
CSPH*4812A**	0.99	0.99	
CSPH*6012A**	1.00	1.00	
FB4CNF042	0.99	0.95	
FB4CNF042	0.99	0.95	
FB4CNF048	0.99	0.91	
FB4CNF048	1.00	0.96	
FE4AN(B,F)003	0.96	0.89	
FE4AN(B,F)005	0.99	0.91	
FE4ANB006	1.00	0.92	
FE5ANB004	1.00	0.92	
FV4BN(B,F)003	0.96	0.91	
FV4BN(B,F)005	0.99	0.90	
FV4BNB006	1.00	0.88	
FV4CN(B,F)003	0.96	0.89	
FV4CN(B,F)005	0.99	0.91	
FV4CNB006	1.00	0.92	

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
FX4CN(B,F)042	0.99	0.95	
FX4CN(B,F)048	1.00	0.92	
FX4CN(B,F)060	1.00	0.98	
FX4DN(B,F)043	0.99	0.95	
FX4DN(B,F)049	1.01	0.93	
FY4ANB060	1.00	1.00	
FY4ANF042	0.98	1.00	
FY4ANF048	0.99	0.99	
FY5BNF042	0.98	0.94	
FY5BNF042	0.99	0.99	
FY5BNF048	1.00	0.96	
FY5BNF048	1.00	1.00	
CAP**4817A**	0.98	0.94	58CV(A,X)070–12
CNPH*4221A**	0.95	0.91	58CV(A,X)070–12
CNPH*4321A**	0.98	0.94	58CV(A,X)070–12
CNPH*4821A**	0.98	0.94	58CV(A,X)070–12
CNPH*6024A**	1.00	1.00	58CV(A,X)070–12
CNPV*4217A**	0.96	0.93	58CV(A,X)070–12
CSPH*4212A**	0.98	0.94	58CV(A,X)070–12
CSPH*4812A**	0.98	0.94	58CV(A,X)070–12
CSPH*6012A**	0.99	0.91	58CV(A,X)070–12
CAP**4221A**	0.95	0.88	58CV(A,X)090–16
CAP**4817A**	0.98	0.90	58CV(A,X)090–16
CAP**4821A**	0.98	0.90	58CV(A,X)090–16
CAP**6021A**	0.99	0.91	58CV(A,X)090–16
CNPH*4221A**	0.96	0.93	58CV(A,X)090–16
CNPH*4321A**	0.99	0.91	58CV(A,X)090–16
CNPH*4821A**	0.98	0.90	58CV(A,X)090–16
CNPH*6024A**	1.00	1.00	58CV(A,X)090–16
CNPV*4217A**	0.96	0.93	58CV(A,X)090–16
CNPV*4221A**	0.96	0.93	58CV(A,X)090–16
CNPV*4821A**	0.98	0.90	58CV(A,X)090–16
CSPH*4212A**	0.98	0.90	58CV(A,X)090–16
CSPH*4812A**	0.98	0.90	58CV(A,X)090–16
CSPH*6012A**	0.99	0.91	58CV(A,X)090–16
CAP**4221A**	0.96	0.89	58CV(A,X)110–20
CAP**4224A**	0.96	0.89	58CV(A,X)110–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4821A**	0.98	0.90	58CV(A,X)110–20
CAP**4824A**	0.98	0.90	58CV(A,X)110–20
CAP**6021A**	0.99	0.91	58CV(A,X)110–20
CAP**6024A**	0.99	0.91	58CV(A,X)110–20
CNPH*4221A**	0.96	0.93	58CV(A,X)110–20
CNPH*4321A**	0.99	0.91	58CV(A,X)110–20
CNPH*4821A**	0.98	0.90	58CV(A,X)110–20
CNPH*6024A**	1.00	1.00	58CV(A,X)110–20
CNPV*4221A**	0.96	0.93	58CV(A,X)110–20
CNPV*4324A**	0.99	0.91	58CV(A,X)110–20
CNPV*4821A**	0.98	0.90	58CV(A,X)110–20
CNPV*4824A**	0.98	0.90	58CV(A,X)110–20
CNPV*6024A**	0.99	0.91	58CV(A,X)110–20
CSPH*4212A**	0.98	0.90	58CV(A,X)110–20
CSPH*4812A**	0.99	0.91	58CV(A,X)110–20
CSPH*6012A**	1.00	0.92	58CV(A,X)110–20
CAP**4224A**	0.96	0.89	58CV(A,X)135–22
CAP**4824A**	0.98	0.90	58CV(A,X)135–22
CAP**6024A**	0.99	0.91	58CV(A,X)135–22
CNPH*4221A**	0.96	0.89	58CV(A,X)135–22
CNPH*4321A**	0.99	0.91	58CV(A,X)135–22
CNPH*4821A**	0.98	0.90	58CV(A,X)135–22
CNPH*6024A**	1.00	1.00	58CV(A,X)135–22
CNPV*4324A**	0.99	0.91	58CV(A,X)135–22
CNPV*4824A**	0.98	0.90	58CV(A,X)135–22
CNPV*6024A**	0.99	0.91	58CV(A,X)135–22
CSPH*4212A**	0.98	0.90	58CV(A,X)135–22
CSPH*4812A**	0.99	0.91	58CV(A,X)135–22
CSPH*6012A**	1.00	0.92	58CV(A,X)135–22
CAP**4224A**	0.96	0.89	58CV(A,X)155–22
CAP**4824A**	0.98	0.90	58CV(A,X)155–22
CAP**6024A**	0.99	0.91	58CV(A,X)155–22
CNPH*4221A**	0.96	0.89	58CV(A,X)155–22
CNPH*4321A**	0.99	0.91	58CV(A,X)155–22
CNPH*4821A**	0.98	0.90	58CV(A,X)155–22
CNPH*6024A**	1.00	1.00	58CV(A,X)155–22
CNPV*4324A**	0.99	0.91	58CV(A,X)155–22

DETAILED COOLING CAPACITIES# (CONT.)

24ABC642A30 Outdoor Section With CNPV*4324A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*4824A**	0.98	0.90	58CV(A,X)155–22
CNPV*6024A**	0.99	0.91	58CV(A,X)155–22
CSPH*4212A**	0.98	0.90	58CV(A,X)155–22
CSPH*4812A**	0.99	0.91	58CV(A,X)155–22
CSPH*6012A**	1.00	0.92	58CV(A,X)155–22
CNPH*4221A**	0.96	0.96	58HDV060– –12
CNPH*4321A**	1.00	0.96	58HDV060– –12
CNPH*4821A**	0.99	0.99	58HDV060– –12
CNPV*4217A**	0.96	0.96	58HDV060– –12
CNPV*4221A**	0.96	0.96	58HDV060– –12
CNPV*4821A**	0.99	0.99	58HDV060– –12
CAP**4823A**	0.98	0.94	58HDV080– –20
CAP**6025A**	1.00	0.92	58HDV080– –20
CNPH*4221A**	0.96	0.96	58HDV080– –20
CNPH*4321A**	1.00	0.96	58HDV080– –20
CNPH*4821A**	0.99	0.95	58HDV080– –20
CNPV*4221A**	0.96	0.96	58HDV080– –20
CNPV*4324A**	1.00	0.96	58HDV080– –20
CNPV*4821A**	0.99	0.95	58HDV080– –20
CNPV*4824A**	0.99	0.95	58HDV080– –20
CSPH*4212A**	0.99	0.95	58HDV080– –20
CSPH*4812A**	0.99	0.95	58HDV080– –20
CAP**6025A**	1.00	0.92	58HDV100– –20
CNPH*4221A**	0.96	0.93	58HDV100– –20
CNPH*4321A**	1.00	0.96	58HDV100– –20
CNPH*4821A**	0.99	0.95	58HDV100– –20
CNPV*4324A**	1.00	0.92	58HDV100– –20
CNPV*4824A**	0.99	0.95	58HDV100– –20
CSPH*4212A**	0.99	0.91	58HDV100– –20
CSPH*4812A**	0.99	0.91	58HDV100– –20
CAP**4221A**	0.96	0.93	58ME(B,C)060–12
CAP**4817A**	0.99	0.91	58ME(B,C)060–12
CAP**4821A**	0.98	0.94	58ME(B,C)060–12
CAP**6021A**	1.00	0.92	58ME(B,C)060–12
CNPH*4221A**	0.96	0.93	58ME(B,C)060–12
CNPH*4321A**	1.00	0.92	58ME(B,C)060–12
CNPH*4821A**	0.99	0.95	58ME(B,C)060–12
CNPH*6024A**	1.00	1.00	58ME(B,C)060–12
CNPV*4217A**	0.98	0.94	58ME(B,C)060–12
CNPV*4221A**	0.96	0.93	58ME(B,C)060–12
CNPV*4821A**	0.99	0.91	58ME(B,C)060–12
CSPH*4212A**	0.99	0.95	58ME(B,C)060–12
CSPH*4812A**	0.99	0.91	58ME(B,C)060–12
CSPH*6012A**	1.00	0.92	58ME(B,C)060–12
CAP**4221A**	0.96	0.93	58ME(B,C)080–12
CAP**4817A**	0.99	0.91	58ME(B,C)080–12
CAP**4821A**	0.98	0.94	58ME(B,C)080–12
CAP**6021A**	1.00	0.92	58ME(B,C)080–12
CNPH*4221A**	0.96	0.93	58ME(B,C)080–12
CNPH*4321A**	1.00	0.92	58ME(B,C)080–12
CNPH*4821A**	0.99	0.91	58ME(B,C)080–12
CNPH*6024A**	1.00	1.00	58ME(B,C)080–12
CNPV*4217A**	0.98	0.94	58ME(B,C)080–12
CNPV*4221A**	0.96	0.93	58ME(B,C)080–12
CNPV*4821A**	0.99	0.91	58ME(B,C)080–12
CSPH*4212A**	0.99	0.91	58ME(B,C)080–12
CSPH*4812A**	0.99	0.91	58ME(B,C)080–12
CSPH*6012A**	1.00	0.92	58ME(B,C)080–12

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4221A**	0.96	0.93	58ME(B,C)080–16
CAP**4817A**	0.98	0.90	58ME(B,C)080–16
CAP**4821A**	0.98	0.94	58ME(B,C)080–16
CAP**6021A**	0.99	0.91	58ME(B,C)080–16
CNPH*4221A**	0.96	0.93	58ME(B,C)080–16
CNPH*4321A**	0.99	0.91	58ME(B,C)080–16
CNPH*4821A**	0.98	0.90	58ME(B,C)080–16
CNPH*6024A**	1.00	1.00	58ME(B,C)080–16
CNPV*4217A**	0.96	0.93	58ME(B,C)080–16
CNPV*4221A**	0.96	0.93	58ME(B,C)080–16
CNPV*4821A**	0.98	0.90	58ME(B,C)080–16
CSPH*4212A**	0.98	0.90	58ME(B,C)080–16
CSPH*4812A**	0.99	0.91	58ME(B,C)080–16
CSPH*6012A**	1.00	0.92	58ME(B,C)080–16
CAP**4221A**	0.96	0.89	58ME(B,C)100–20
CAP**4224A**	0.96	0.89	58ME(B,C)100–20
CAP**4821A**	0.98	0.90	58ME(B,C)100–20
CAP**4824A**	0.98	0.90	58ME(B,C)100–20
CAP**6021A**	1.00	0.92	58ME(B,C)100–20
CAP**6024A**	1.00	0.92	58ME(B,C)100–20
CNPH*4221A**	0.96	0.89	58ME(B,C)100–20
CNPH*4321A**	1.00	0.92	58ME(B,C)100–20
CNPH*4821A**	0.99	0.91	58ME(B,C)100–20
CNPH*6024A**	1.00	1.00	58ME(B,C)100–20
CNPV*4221A**	0.96	0.89	58ME(B,C)100–20
CNPV*4324A**	1.00	0.92	58ME(B,C)100–20
CNPV*4821A**	0.99	0.91	58ME(B,C)100–20
CNPV*4824A**	0.99	0.91	58ME(B,C)100–20
CNPV*6024A**	1.00	0.92	58ME(B,C)100–20
CSPH*4212A**	0.99	0.91	58ME(B,C)100–20
CSPH*4812A**	0.99	0.91	58ME(B,C)100–20
CSPH*6012A**	1.00	0.92	58ME(B,C)100–20
CAP**4224A**	0.96	0.89	58ME(B,C)120–20
CAP**4824A**	0.99	0.91	58ME(B,C)120–20
CAP**6024A**	1.00	0.92	58ME(B,C)120–20
CNPH*4221A**	0.96	0.89	58ME(B,C)120–20
CNPH*4321A**	1.00	0.92	58ME(B,C)120–20
CNPH*4821A**	0.99	0.91	58ME(B,C)120–20
CNPH*6024A**	1.00	1.00	58ME(B,C)120–20
CNPV*4324A**	1.00	0.92	58ME(B,C)120–20
CNPV*4824A**	0.99	0.91	58ME(B,C)120–20
CNPV*6024A**	1.00	0.92	58ME(B,C)120–20
CSPH*4212A**	0.99	0.91	58ME(B,C)120–20
CSPH*4812A**	0.99	0.91	58ME(B,C)120–20
CSPH*6012A**	1.00	0.92	58ME(B,C)120–20
CAP**4221A**	0.96	0.93	58MEB040–12
CAP**4817A**	0.99	0.91	58MEB040–12
CAP**4821A**	0.98	0.94	58MEB040–12
CAP**6021A**	1.00	0.92	58MEB040–12
CNPH*4221A**	0.96	0.93	58MEB040–12
CNPH*4321A**	1.00	0.92	58MEB040–12
CNPH*4821A**	0.99	0.91	58MEB040–12
CNPH*6024A**	1.00	1.00	58MEB040–12
CNPV*4217A**	0.98	0.94	58MEB040–12
CNPV*4221A**	0.96	0.93	58MEB040–12
CNPV*4821A**	0.99	0.91	58MEB040–12
CSPH*4212A**	0.99	0.91	58MEB040–12
CSPH*4812A**	0.99	0.91	58MEB040–12

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*6012A**	1.00	0.92	58MEB040–12
CAP**4221A**	0.96	0.93	58MV(B,C)060–14
CAP**4817A**	0.99	0.91	58MV(B,C)060–14
CAP**4821A**	0.98	0.94	58MV(B,C)060–14
CAP**6021A**	0.99	0.91	58MV(B,C)060–14
CNPH*4221A**	0.96	0.93	58MV(B,C)060–14
CNPH*4321A**	0.99	0.91	58MV(B,C)060–14
CNPH*4821A**	0.98	0.90	58MV(B,C)060–14
CNPH*6024A**	1.00	1.00	58MV(B,C)060–14
CNPV*4217A**	0.98	0.94	58MV(B,C)060–14
CNPV*4221A**	0.96	0.93	58MV(B,C)060–14
CNPV*4821A**	0.98	0.90	58MV(B,C)060–14
CSPH*4212A**	0.99	0.91	58MV(B,C)060–14
CSPH*4812A**	0.99	0.91	58MV(B,C)060–14
CSPH*6012A**	1.00	0.92	58MV(B,C)060–14
CAP**4221A**	0.95	0.91	58MV(B,C)080–14
CAP**4224A**	0.95	0.91	58MV(B,C)080–14
CAP**4821A**	0.96	0.93	58MV(B,C)080–14
CAP**4824A**	0.96	0.93	58MV(B,C)080–14
CAP**6021A**	0.99	0.95	58MV(B,C)080–14
CAP**6024A**	0.99	0.91	58MV(B,C)080–14
CNPH*4221A**	0.95	0.95	58MV(B,C)080–14
CNPH*4321A**	0.99	0.95	58MV(B,C)080–14
CNPH*4821A**	0.98	0.94	58MV(B,C)080–14
CNPH*6024A**	1.00	1.00	58MV(B,C)080–14
CNPV*4221A**	0.95	0.95	58MV(B,C)080–14
CNPV*4324A**	0.99	0.91	58MV(B,C)080–14
CNPV*4821A**	0.98	0.94	58MV(B,C)080–14
CNPV*4824A**	0.98	0.94	58MV(B,C)080–14
CNPV*6024A**	0.99	0.91	58MV(B,C)080–14
CSPH*4212A**	0.98	0.94	58MV(B,C)080–14
CSPH*4812A**	0.98	0.94	58MV(B,C)080–14
CSPH*6012A**	0.99	0.91	58MV(B,C)080–14
CAP**4221A**	0.95	0.91	58MV(B,C)080–20
CAP**4224A**	0.95	0.91	58MV(B,C)080–20
CAP**4821A**	0.98	0.94	58MV(B,C)080–20
CAP**4824A**	0.98	0.94	58MV(B,C)080–20
CAP**6021A**	0.99	0.91	58MV(B,C)080–20
CAP**6024A**	0.99	0.91	58MV(B,C)080–20
CNPH*4221A**	0.95	0.91	58MV(B,C)080–20
CNPH*4321A**	0.99	0.91	58MV(B,C)080–20
CNPH*4821A**	0.98	0.94	58MV(B,C)080–20
CNPH*6024A**	1.00	1.00	58MV(B,C)080–20
CNPV*4221A**	0.95	0.91	58MV(B,C)080–20
CNPV*4324A**	0.99	0.91	58MV(B,C)080–20
CNPV*4821A**	0.98	0.90	58MV(B,C)080–20
CNPV*4824A**	0.98	0.90	58MV(B,C)080–20
CNPV*6024A**	0.99	0.91	58MV(B,C)080–20
CSPH*4212A**	0.98	0.94	58MV(B,C)080–20
CSPH*4812A**	0.98	0.94	58MV(B,C)080–20
CSPH*6012A**	0.99	0.91	58MV(B,C)080–20
CAP**4221A**	0.95	0.91	58MV(B,C)100–20
CAP**4224A**	0.95	0.91	58MV(B,C)100–20
CAP**4821A**	0.96	0.93	58MV(B,C)100–20
CAP**4824A**	0.96	0.89	58MV(B,C)100–20
CAP**6021A**	0.98	0.90	58MV(B,C)100–20
CAP**6024A**	0.98	0.90	58MV(B,C)100–20
CNPH*4221A**	0.95	0.91	58MV(B,C)100–20

DETAILED COOLING CAPACITIES# (CONT.)

24ABC642A30 Outdoor Section With CNPV*4324A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*4321A**	0.98	0.90	58MV(B,C)100–20
CNPH*4821A**	0.96	0.89	58MV(B,C)100–20
CNPH*6024A**	0.99	0.99	58MV(B,C)100–20
CNPV*4221A**	0.95	0.91	58MV(B,C)100–20
CNPV*4324A**	0.98	0.90	58MV(B,C)100–20
CNPV*4821A**	0.96	0.89	58MV(B,C)100–20
CNPV*4824A**	0.96	0.89	58MV(B,C)100–20
CNPV*6024A**	0.98	0.90	58MV(B,C)100–20
CSPH*4212A**	0.98	0.90	58MV(B,C)100–20
CSPH*4812A**	0.98	0.90	58MV(B,C)100–20
CSPH*6012A**	0.99	0.91	58MV(B,C)100–20
CAP**4224A**	0.95	0.88	58MV(B,C)120–20
CAP**4824A**	0.98	0.90	58MV(B,C)120–20
CAP**6024A**	0.99	0.91	58MV(B,C)120–20
CNPH*4221A**	0.96	0.93	58MV(B,C)120–20
CNPH*4321A**	0.99	0.91	58MV(B,C)120–20
CNPH*4821A**	0.98	0.90	58MV(B,C)120–20
CNPH*6024A**	1.00	1.00	58MV(B,C)120–20
CNPV*4324A**	0.99	0.91	58MV(B,C)120–20
CNPV*4824A**	0.98	0.90	58MV(B,C)120–20
CNPV*6024A**	0.99	0.91	58MV(B,C)120–20
CSPH*4212A**	0.98	0.90	58MV(B,C)120–20
CSPH*4812A**	0.98	0.90	58MV(B,C)120–20
CSPH*6012A**	0.99	0.91	58MV(B,C)120–20
CAP**4224A**	0.95	0.91	58MVB040–14
CAP**4824A**	0.96	0.93	58MVB040–14
CAP**6024A**	0.98	0.90	58MVB040–14
CNPH*4221A**	0.95	0.91	58MVB040–14
CNPH*4321A**	0.98	0.94	58MVB040–14
CNPH*4821A**	0.96	0.93	58MVB040–14
CNPH*6024A**	0.99	0.99	58MVB040–14
CNPV*4324A**	0.98	0.90	58MVB040–14
CNPV*4824A**	0.96	0.93	58MVB040–14
CNPV*6024A**	0.98	0.90	58MVB040–14
CSPH*4212A**	0.98	0.94	58MVB040–14
CSPH*4812A**	0.98	0.94	58MVB040–14
CSPH*6012A**	0.99	0.91	58MVB040–14
CAP**4221A**	0.95	0.95	58PH*070–16
CAP**4817A**	0.98	0.98	58PH*070–16
CAP**4821A**	0.98	0.98	58PH*070–16
CAP**6021A**	0.99	0.95	58PH*070–16
CNPH*4221A**	0.95	0.95	58PH*070–16
CNPH*4321A**	0.99	0.95	58PH*070–16
CNPH*4821A**	0.98	0.98	58PH*070–16
CNPH*6024A**	1.00	1.00	58PH*070–16
CNPV*4217A**	0.96	0.96	58PH*070–16
CNPV*4221A**	0.95	0.95	58PH*070–16
CNPV*4821A**	0.98	0.98	58PH*070–16
CSPH*4212A**	0.98	0.98	58PH*070–16
CSPH*4812A**	0.98	0.94	58PH*070–16
CSPH*6012A**	1.00	0.96	58PH*070–16
CAP**4221A**	0.96	0.89	58PH*090–16
CAP**4224A**	0.96	0.89	58PH*090–16
CAP**4821A**	0.98	0.90	58PH*090–16
CAP**4824A**	0.98	0.90	58PH*090–16
CAP**6021A**	0.99	0.91	58PH*090–16
CAP**6024A**	0.99	0.91	58PH*090–16
CNPH*4221A**	0.96	0.93	58PH*090–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*4321A**	0.99	0.91	58PH*090–16
CNPH*4821A**	0.98	0.90	58PH*090–16
CNPH*6024A**	1.00	1.00	58PH*090–16
CNPV*4221A**	0.96	0.93	58PH*090–16
CNPV*4324A**	1.00	0.92	58PH*090–16
CNPV*4821A**	0.98	0.90	58PH*090–16
CNPV*4824A**	0.98	0.90	58PH*090–16
CNPV*6024A**	1.00	0.92	58PH*090–16
CSPH*4212A**	0.98	0.90	58PH*090–16
CSPH*4812A**	0.99	0.91	58PH*090–16
CSPH*6012A**	1.00	0.92	58PH*090–16
CAP**4221A**	0.96	0.89	58PH*110–20
CAP**4224A**	0.96	0.89	58PH*110–20
CAP**4821A**	0.98	0.90	58PH*110–20
CAP**4824A**	0.98	0.90	58PH*110–20
CAP**6021A**	1.00	0.92	58PH*110–20
CAP**6024A**	1.00	0.92	58PH*110–20
CNPH*4221A**	0.96	0.89	58PH*110–20
CNPH*4321A**	1.00	0.92	58PH*110–20
CNPH*4821A**	0.99	0.91	58PH*110–20
CNPH*6024A**	1.00	1.00	58PH*110–20
CNPV*4221A**	0.96	0.89	58PH*110–20
CNPV*4324A**	1.00	0.92	58PH*110–20
CNPV*4821A**	0.99	0.91	58PH*110–20
CNPV*4824A**	0.99	0.91	58PH*110–20
CNPV*6024A**	1.00	0.92	58PH*110–20
CSPH*4212A**	0.99	0.91	58PH*110–20
CSPH*4812A**	0.99	0.91	58PH*110–20
CSPH*6012A**	1.00	0.92	58PH*110–20
CAP**4224A**	0.96	0.89	58PH*135–20
CAP**4824A**	0.98	0.90	58PH*135–20
CAP**6024A**	1.00	0.92	58PH*135–20
CNPH*4221A**	0.96	0.93	58PH*135–20
CNPH*4321A**	0.99	0.91	58PH*135–20
CNPH*4821A**	0.99	0.91	58PH*135–20
CNPH*6024A**	1.00	1.00	58PH*135–20
CNPV*4324A**	1.00	0.92	58PH*135–20
CNPV*4824A**	0.99	0.91	58PH*135–20
CNPV*6024A**	1.00	0.92	58PH*135–20
CSPH*4212A**	0.98	0.90	58PH*135–20
CSPH*4812A**	0.99	0.91	58PH*135–20
CSPH*6012A**	1.00	0.92	58PH*135–20
CAP**4221A**	0.96	0.93	58UVB060–14
CAP**4221A**	0.96	0.93	58UVB060–14
CAP**4817A**	0.99	0.91	58UVB060–14
CAP**4817A**	0.99	0.91	58UVB060–14
CAP**4821A**	0.98	0.94	58UVB060–14
CAP**4821A**	0.98	0.94	58UVB060–14
CAP**6021A**	0.99	0.91	58UVB060–14
CAP**6021A**	0.99	0.91	58UVB060–14
CNPV*4217A**	0.98	0.94	58UVB060–14
CNPV*4217A**	0.98	0.94	58UVB060–14
CNPV*4221A**	0.96	0.93	58UVB060–14
CNPV*4221A**	0.96	0.93	58UVB060–14
CNPV*4821A**	0.98	0.90	58UVB060–14
CNPV*4821A**	0.98	0.90	58UVB060–14
CAP**4221A**	0.95	0.91	58UVB080–14
CAP**4221A**	0.95	0.91	58UVB080–14

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4224A**	0.95	0.91	58UVB080–14
CAP**4224A**	0.95	0.91	58UVB080–14
CAP**4821A**	0.96	0.93	58UVB080–14
CAP**4821A**	0.96	0.93	58UVB080–14
CAP**4824A**	0.96	0.93	58UVB080–14
CAP**4824A**	0.96	0.93	58UVB080–14
CAP**6021A**	0.99	0.95	58UVB080–14
CAP**6021A**	0.99	0.95	58UVB080–14
CAP**6024A**	0.99	0.91	58UVB080–14
CAP**6024A**	0.99	0.91	58UVB080–14
CNPV*4221A**	0.95	0.95	58UVB080–14
CNPV*4221A**	0.95	0.95	58UVB080–14
CNPV*4324A**	0.99	0.91	58UVB080–14
CNPV*4324A**	0.99	0.91	58UVB080–14
CNPV*4821A**	0.98	0.94	58UVB080–14
CNPV*4821A**	0.98	0.94	58UVB080–14
CNPV*4824A**	0.98	0.94	58UVB080–14
CNPV*4824A**	0.98	0.94	58UVB080–14
CNPV*6024A**	0.99	0.91	58UVB080–14
CNPV*6024A**	0.99	0.91	58UVB080–14
CAP**4221A**	0.95	0.91	58UVB080–20
CAP**4221A**	0.95	0.91	58UVB080–20
CAP**4224A**	0.95	0.91	58UVB080–20
CAP**4224A**	0.95	0.91	58UVB080–20
CAP**4821A**	0.98	0.94	58UVB080–20
CAP**4821A**	0.98	0.94	58UVB080–20
CAP**4824A**	0.98	0.94	58UVB080–20
CAP**4824A**	0.98	0.94	58UVB080–20
CAP**6021A**	0.99	0.91	58UVB080–20
CAP**6021A**	0.99	0.91	58UVB080–20
CAP**6024A**	0.99	0.91	58UVB080–20
CAP**6024A**	0.99	0.91	58UVB080–20
CNPV*4221A**	0.95	0.91	58UVB080–20
CNPV*4221A**	0.95	0.91	58UVB080–20
CNPV*4324A**	0.99	0.91	58UVB080–20
CNPV*4324A**	0.99	0.91	58UVB080–20
CNPV*4821A**	0.98	0.90	58UVB080–20
CNPV*4821A**	0.98	0.90	58UVB080–20
CNPV*4824A**	0.98	0.90	58UVB080–20
CNPV*4824A**	0.98	0.90	58UVB080–20
CNPV*6024A**	0.99	0.91	58UVB080–20
CNPV*6024A**	0.99	0.91	58UVB080–20
CAP**4221A**	0.95	0.91	58UVB100–20
CAP**4221A**	0.95	0.91	58UVB100–20
CAP**4224A**	0.95	0.91	58UVB100–20
CAP**4224A**	0.95	0.91	58UVB100–20
CAP**4821A**	0.96	0.93	58UVB100–20
CAP**4821A**	0.96	0.93	58UVB100–20
CAP**4824A**	0.96	0.89	58UVB100–20
CAP**4824A**	0.96	0.89	58UVB100–20
CAP**6021A**	0.98	0.90	58UVB100–20
CAP**6021A**	0.98	0.90	58UVB100–20
CAP**6024A**	0.98	0.90	58UVB100–20
CAP**6024A**	0.98	0.90	58UVB100–20
CNPV*4221A**	0.95	0.91	58UVB100–20
CNPV*4221A**	0.95	0.91	58UVB100–20
CNPV*4324A**	0.98	0.90	58UVB100–20
CNPV*4324A**	0.98	0.90	58UVB100–20

DETAILED COOLING CAPACITIES# (CONT.)

24ABC642A30 Outdoor Section With CNPV*4324A** Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*4821A**	0.96	0.89	58UVB100–20
CNPV*4821A**	0.96	0.89	58UVB100–20
CNPV*4824A**	0.96	0.89	58UVB100–20
CNPV*4824A**	0.96	0.89	58UVB100–20
CNPV*6024A**	0.98	0.90	58UVB100–20
CNPV*6024A**	0.98	0.90	58UVB100–20
CAP**4224A**	0.95	0.88	58UVB120–20
CAP**4224A**	0.95	0.88	58UVB120–20
CAP**4824A**	0.98	0.90	58UVB120–20
CAP**4824A**	0.98	0.90	58UVB120–20
CAP**6024A**	0.99	0.91	58UVB120–20
CAP**6024A**	0.99	0.91	58UVB120–20
CNPV*4324A**	0.99	0.91	58UVB120–20
CNPV*4324A**	0.99	0.91	58UVB120–20
CNPV*4824A**	0.98	0.90	58UVB120–20
CNPV*4824A**	0.98	0.90	58UVB120–20
CNPV*6024A**	0.99	0.91	58UVB120–20
CNPV*6024A**	0.99	0.91	58UVB120–20
CAP**4221A**	0.95	0.88	58VLR120–20
CAP**4224A**	0.95	0.88	58VLR120–20
CAP**4821A**	0.98	0.90	58VLR120–20
CAP**4824A**	0.98	0.90	58VLR120–20
CAP**6021A**	0.99	0.91	58VLR120–20
CAP**6024A**	0.99	0.91	58VLR120–20
CNPH*4221A**	0.96	0.93	58VLR120–20
CNPH*4321A**	0.99	0.91	58VLR120–20
CNPH*4821A**	0.98	0.90	58VLR120–20
CNPH*6024A**	1.00	1.00	58VLR120–20
CNPV*4221A**	0.96	0.93	58VLR120–20
CNPV*4324A**	0.99	0.91	58VLR120–20
CNPV*4821A**	0.98	0.90	58VLR120–20
CNPV*4824A**	0.98	0.90	58VLR120–20
CNPV*6024A**	0.99	0.91	58VLR120–20
CSPH*4212A**	0.98	0.90	58VLR120–20
CSPH*4812A**	0.98	0.90	58VLR120–20
CSPH*6012A**	0.99	0.91	58VLR120–20
CAP**4221A**	0.95	0.91	58VMR120–20
CAP**4224A**	0.95	0.91	58VMR120–20
CAP**4821A**	0.96	0.89	58VMR120–20
CAP**4824A**	0.96	0.89	58VMR120–20
CAP**6021A**	0.99	0.91	58VMR120–20
CAP**6024A**	0.99	0.91	58VMR120–20
CNPH*4221A**	0.95	0.91	58VMR120–20
CNPH*4321A**	0.99	0.91	58VMR120–20
CNPH*4821A**	0.98	0.90	58VMR120–20
CNPH*6024A**	1.00	1.00	58VMR120–20
CNPV*4221A**	0.95	0.91	58VMR120–20
CNPV*4324A**	0.99	0.91	58VMR120–20
CNPV*4821A**	0.98	0.90	58VMR120–20
CNPV*4824A**	0.98	0.90	58VMR120–20
CNPV*6024A**	0.99	0.91	58VMR120–20
CSPH*4212A**	0.98	0.90	58VMR120–20
CSPH*4812A**	0.98	0.90	58VMR120–20
CSPH*6012A**	0.99	0.91	58VMR120–20
CAP**4221A**	0.94	0.90	59*N*A060V17**14
CAP**4817A**	0.96	0.93	59*N*A060V17**14
CAP**4821A**	0.96	0.93	59*N*A060V17**14
CNPH*4221A**	0.95	0.95	59*N*A060V17**14
CNPH*4321A**	0.98	0.94	59*N*A060V17**14
CNPH*4821A**	0.98	0.94	59*N*A060V17**14
CNPV*4217A**	0.95	0.91	59*N*A060V17**14
CNPV*4221A**	0.95	0.95	59*N*A060V17**14
CNPV*4821A**	0.96	0.93	59*N*A060V17**14
CSPH*4212A**	0.96	0.93	59*N*A060V17**14
CSPH*4812A**	0.96	0.93	59*N*A060V17**14
CAP**4221A**	0.95	0.91	59*N*A080V17**14
CAP**4817A**	0.96	0.91	59*N*A080V17**14
CAP**4821A**	0.96	0.93	59*N*A080V17**14
CNPH*4221A**	0.95	0.91	59*N*A080V17**14
CNPH*4321A**	0.98	0.92	59*N*A080V17**14
CNPH*4821A**	0.96	0.91	59*N*A080V17**14
CNPV*4217A**	0.95	0.91	59*N*A080V17**14
CNPV*4221A**	0.95	0.91	59*N*A080V17**14
CNPV*4821A**	0.96	0.91	59*N*A080V17**14
CSPH*4212A**	0.96	0.91	59*N*A080V17**14
CSPH*4812A**	0.98	0.92	59*N*A080V17**14
CAP**4221A**	0.95	0.90	59*N*A100V21**20
CAP**4224A**	0.95	0.90	59*N*A100V21**20
CAP**4821A**	0.96	0.91	59*N*A100V21**20
CAP**4823A**	0.96	0.91	59*N*A100V21**20
CAP**4824A**	0.96	0.91	59*N*A100V21**20
CNPH*4221A**	0.95	0.91	59*N*A100V21**20
CNPH*4321A**	0.98	0.92	59*N*A100V21**20
CNPH*4821A**	0.96	0.91	59*N*A100V21**20
CNPV*4221A**	0.95	0.91	59*N*A100V21**20
CNPV*4324A**	0.98	0.90	59*N*A100V21**20
CNPV*4821A**	0.96	0.91	59*N*A100V21**20
CNPV*4824A**	0.96	0.91	59*N*A100V21**20
CSPH*4212A**	0.98	0.92	59*N*A100V21**20
CSPH*4812A**	0.98	0.92	59*N*A100V21**20
CAP**4224A**	0.95	0.90	59*N*A120V24**22
CAP**4823A**	0.96	0.91	59*N*A120V24**22
CAP**4824A**	0.96	0.89	59*N*A120V24**22
CNPH*4221A**	0.95	0.90	59*N*A120V24**22
CNPH*4321A**	0.98	0.90	59*N*A120V24**22
CNPH*4821A**	0.96	0.89	59*N*A120V24**22
CNPV*4324A**	0.99	0.91	59*N*A120V24**22
CNPV*4824A**	0.96	0.89	59*N*A120V24**22
CSPH*4212A**	0.98	0.90	59*N*A120V24**22
CSPH*4812A**	0.98	0.90	59*N*A120V24**22
CAP**4221A**	0.95	0.95	59*P5A060E17**14
CAP**4817A**	0.98	0.94	59*P5A060E17**14
CAP**4821A**	0.96	0.93	59*P5A060E17**14
CNPH*4221A**	0.95	0.95	59*P5A060E17**14
CNPH*4321A**	0.99	0.95	59*P5A060E17**14
CNPH*4821A**	0.98	0.94	59*P5A060E17**14
CNPV*4217A**	0.96	0.93	59*P5A060E17**14
CNPV*4221A**	0.95	0.95	59*P5A060E17**14
CNPV*4821A**	0.98	0.94	59*P5A060E17**14
CSPH*4212A**	0.98	0.94	59*P5A060E17**14
CSPH*4812A**	0.98	0.94	59*P5A060E17**14
CAP**4221A**	0.96	0.93	59*P5A080E17**16
CAP**4817A**	0.98	0.94	59*P5A080E17**16
CAP**4821A**	0.98	0.94	59*P5A080E17**16
CNPH*4221A**	0.96	0.93	59*P5A080E17**16
CNPH*4321A**	0.99	0.93	59*P5A080E17**16
CNPH*4821A**	0.98	0.94	59*P5A080E17**16
CNPV*4217A**	0.96	0.93	59*P5A080E17**16
CNPV*4221A**	0.96	0.93	59*P5A080E17**16
CNPV*4821A**	0.98	0.94	59*P5A080E17**16
CSPH*4212A**	0.98	0.94	59*P5A080E17**16
CSPH*4812A**	0.99	0.95	59*P5A080E17**16
CAP**4221A**	0.95	0.91	59*P5A100E21**16
CAP**4224A**	0.95	0.91	59*P5A100E21**16
CAP**4821A**	0.96	0.91	59*P5A100E21**16
CAP**4823A**	0.96	0.91	59*P5A100E21**16
CAP**4824A**	0.98	0.92	59*P5A100E21**16
CNPH*4221A**	0.95	0.91	59*P5A100E21**16
CNPH*4321A**	0.99	0.93	59*P5A100E21**16
CNPH*4821A**	0.98	0.92	59*P5A100E21**16
CNPV*4221A**	0.95	0.91	59*P5A100E21**16
CNPV*4324A**	0.99	0.93	59*P5A100E21**16
CNPV*4821A**	0.98	0.92	59*P5A100E21**16
CNPV*4824A**	0.98	0.92	59*P5A100E21**16
CSPH*4212A**	0.98	0.92	59*P5A100E21**16
CSPH*4812A**	0.98	0.92	59*P5A100E21**16
CAP**4224A**	0.96	0.91	59*P5A120E24**22
CAP**4823A**	0.98	0.92	59*P5A120E24**22
CAP**4824A**	0.99	0.93	59*P5A120E24**22
CNPH*4221A**	0.96	0.91	59*P5A120E24**22
CNPH*4321A**	1.00	0.92	59*P5A120E24**22
CNPH*4821A**	0.99	0.93	59*P5A120E24**22
CNPV*4324A**	1.00	0.92	59*P5A120E24**22
CNPV*4824A**	0.99	0.93	59*P5A120E24**22
CSPH*4212A**	0.99	0.93	59*P5A120E24**22
CSPH*4812A**	0.99	0.93	59*P5A120E24**22
CAP**4221A**	0.96	0.96	OVLAAB048112
CAP**4821A**	0.98	0.94	OVLAAB048112
CNPH*4221A**	0.96	0.96	OVLAAB048112
CNPH*4321A**	0.99	0.95	OVLAAB048112
CNPH*4821A**	0.98	0.98	OVLAAB048112
CNPV*4221A**	0.96	0.96	OVLAAB048112
CNPV*4324A**	0.99	0.95	OVLAAB048112
CNPV*4821A**	0.98	0.98	OVLAAB048112
CNPV*4824A**	0.98	0.98	OVLAAB048112
CSPH*4212A**	0.98	0.98	OVLAAB048112
CSPH*4812A**	0.99	0.99	OVLAAB048112
CNPH*4221A**	0.98	0.98	OVLAAB060154
CNPH*4321A**	1.01	0.97	OVLAAB060154
CNPH*4821A**	1.00	0.96	OVLAAB060154
CNPV*4324A**	1.01	0.97	OVLAAB060154
CNPV*4824A**	1.00	0.96	OVLAAB060154
CSPH*4212A**	1.00	0.96	OVLAAB060154
CSPH*4812A**	1.00	0.96	OVLAAB060154
CAP**4817A**	0.98	0.94	OVMAAB042112
CNPH*4221A**	0.95	0.95	OVMAAB042112
CNPH*4321A**	0.99	0.95	OVMAAB042112
CNPH*4821A**	0.98	0.94	OVMAAB042112
CNPV*4217A**	0.96	0.96	OVMAAB042112
CNPV*4221A**	0.95	0.95	OVMAAB042112
CNPV*4821A**	0.98	0.94	OVMAAB042112
CSPH*4212A**	0.98	0.94	OVMAAB042112
CSPH*4812A**	0.98	0.94	OVMAAB042112

See notes on pg. 78

DETAILED COOLING CAPACITIES# (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
24ABC648A**31 Outdoor Section With CAP**6024* Indoor Section																			
1400	72 (22.2)	55.71	27.90	2.67	52.91	26.91	3.09	50.01	25.90	3.52	47.00	24.87	3.95	43.85	23.81	4.41	40.51	22.69	4.89
	67 (19.4)	50.48	34.32	2.83	47.96	33.34	3.22	45.37	32.35	3.61	42.67	31.33	4.01	39.85	30.28	4.44	36.84	29.16	4.91
	63 (17.2)††	46.73	32.94	2.93	44.44	31.98	3.29	42.06	31.01	3.66	39.59	30.00	4.05	36.99	28.96	4.46	34.22	27.85	4.92
	62 (16.7)	45.93	40.65	2.94	43.75	39.65	3.30	41.55	41.29	3.66	39.51	39.51	4.04	37.39	37.39	4.46	35.08	35.08	4.91
	57 (13.9)	45.05	45.05	2.96	43.28	43.28	3.31	41.43	41.43	3.66	39.45	39.45	4.04	37.34	37.34	4.46	35.03	35.03	4.91
1600	72 (22.2)	56.66	29.33	2.72	53.70	28.32	3.15	50.67	27.29	3.59	47.54	26.24	4.03	44.26	25.15	4.49	40.81	24.02	4.98
	67 (19.4)	51.35	36.61	2.88	48.71	35.62	3.28	46.00	34.60	3.68	43.20	33.56	4.09	40.27	32.47	4.53	37.17	31.32	5.00
	63 (17.2)††	47.56	35.07	2.99	45.15	34.09	3.36	42.68	33.09	3.74	40.11	32.06	4.13	37.41	30.98	4.55	34.56	29.83	5.01
	62 (16.7)	47.06	46.71	3.00	45.06	45.06	3.36	43.04	43.04	3.73	40.91	40.91	4.12	38.62	38.62	4.54	36.15	36.15	5.00
	57 (13.9)	46.92	46.92	3.00	44.99	44.99	3.36	42.98	42.98	3.73	40.85	40.85	4.12	38.57	38.57	4.54	36.11	36.11	5.00
1800	72 (22.2)	57.33	30.68	2.77	54.27	29.65	3.22	51.13	28.60	3.66	47.88	27.53	4.11	44.52	26.43	4.57	40.96	25.28	5.07
	67 (19.4)	51.99	38.81	2.94	49.25	37.79	3.35	46.46	36.75	3.76	43.57	35.67	4.17	40.57	34.55	4.62	37.43	33.33	5.09
	63 (17.2)††	48.17	37.10	3.06	45.68	36.10	3.44	43.11	35.07	3.82	40.47	34.01	4.21	37.72	32.88	4.64	34.82	31.65	5.10
	62 (16.7)	48.51	48.51	3.04	46.44	46.44	3.41	44.29	44.29	3.79	42.02	42.02	4.19	39.60	39.60	4.62	36.98	36.98	5.09
	57 (13.9)	48.45	48.45	3.04	46.38	46.38	3.42	44.24	44.24	3.79	41.97	41.97	4.19	39.55	39.55	4.62	36.94	36.94	5.09

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CAP**6024A**	1.00	1.00	
CAP**4817A**	0.96	0.96	
CAP**4821A**	0.98	1.02	
CAP**4823A**	0.98	1.02	
CAP**4824A**	0.98	1.02	
CAP**6021A**	0.99	0.99	
CAP**6025A**	1.00	1.04	
CNPF*4818A**	0.96	1.00	
CNPH*4821A**	0.98	1.02	
CNPH*6024A**	1.00	1.00	
CNPH*6124A**	1.01	1.01	
CNPV*4821A**	0.98	1.02	
CNPV*4824A**	0.98	1.02	
CNPV*6024A**	1.00	1.00	
CNPV*6124A**	1.01	1.01	
CSPH*4812A**	0.98	0.98	
CSPH*6012A**	1.00	1.00	
FB4CNF048	0.98	0.98	
FB4CNF060	1.00	1.00	
FE4AN(B,F)005	0.99	0.95	
FE4ANB006	1.00	0.96	
FV4BN(B,F)005	0.99	0.92	
FV4BNB006	1.00	0.89	
FV4CN(B,F)005	0.99	0.95	
FV4CNB006	1.00	0.96	
FX4CN(B,F)048	0.99	0.95	
FX4CN(B,F)060	1.01	0.94	
FX4DN(B,F)049	1.01	0.97	
FX4DN(B,F)061	1.02	0.98	
FY4ANB060	1.00	1.00	
FY4ANF048	0.98	1.00	
FY5BNB060	1.00	1.04	
FY5BNF048	1.00	1.00	
CAP**4817A**	0.96	0.96	58CV(A,X)090–16
CAP**4821A**	0.97	0.97	58CV(A,X)090–16
CAP**6021A**	0.98	0.94	58CV(A,X)090–16
CNPH*4821A**	0.97	0.97	58CV(A,X)090–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*6024A**	0.98	0.98	58CV(A,X)090–16
CNPH*6124A**	0.99	0.99	58CV(A,X)090–16
CNPV*4821A**	0.97	0.97	58CV(A,X)090–16
CSPH*4812A**	0.98	0.98	58CV(A,X)090–16
CSPH*6012A**	0.99	0.95	58CV(A,X)090–16
CAP**4817A**	0.96	0.96	58CV(A,X)110–20
CAP**4821A**	0.97	0.97	58CV(A,X)110–20
CAP**4824A**	0.97	0.97	58CV(A,X)110–20
CAP**6021A**	0.98	0.94	58CV(A,X)110–20
CAP**6024A**	0.99	0.95	58CV(A,X)110–20
CNPH*4821A**	0.97	0.97	58CV(A,X)110–20
CNPH*6024A**	0.99	0.95	58CV(A,X)110–20
CNPH*6124A**	0.99	0.99	58CV(A,X)110–20
CNPV*4821A**	0.97	0.97	58CV(A,X)110–20
CNPV*4824A**	0.97	0.97	58CV(A,X)110–20
CNPV*6024A**	0.99	0.95	58CV(A,X)110–20
CNPV*6124A**	1.00	0.96	58CV(A,X)110–20
CSPH*4812A**	0.98	0.98	58CV(A,X)110–20
CSPH*6012A**	0.99	0.95	58CV(A,X)110–20
CAP**4821A**	0.97	0.97	58CV(A,X)135–22
CAP**4824A**	0.97	0.97	58CV(A,X)135–22
CAP**6021A**	0.98	0.94	58CV(A,X)135–22
CAP**6024A**	0.99	0.95	58CV(A,X)135–22
CNPH*4821A**	0.97	0.93	58CV(A,X)135–22
CNPH*6024A**	0.99	0.95	58CV(A,X)135–22
CNPH*6124A**	1.00	0.96	58CV(A,X)135–22
CNPV*4821A**	0.97	0.97	58CV(A,X)135–22
CNPV*4824A**	0.97	0.93	58CV(A,X)135–22
CNPV*6024A**	0.99	0.95	58CV(A,X)135–22
CNPV*6124A**	1.00	0.96	58CV(A,X)135–22
CSPH*4812A**	0.98	0.98	58CV(A,X)135–22
CSPH*6012A**	0.99	0.95	58CV(A,X)135–22
CAP**4821A**	0.97	0.93	58CV(A,X)155–22
CAP**4824A**	0.97	0.93	58CV(A,X)155–22
CAP**6021A**	0.99	0.95	58CV(A,X)155–22
CAP**6024A**	0.99	0.95	58CV(A,X)155–22
CNPH*4821A**	0.98	0.94	58CV(A,X)155–22

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*6024A**	0.99	0.95	58CV(A,X)155–22
CNPH*6124A**	1.00	0.96	58CV(A,X)155–22
CNPV*4821A**	0.98	0.94	58CV(A,X)155–22
CNPV*4824A**	0.98	0.94	58CV(A,X)155–22
CNPV*6024A**	0.99	0.95	58CV(A,X)155–22
CNPV*6124A**	1.01	0.97	58CV(A,X)155–22
CSPH*4812A**	0.98	0.94	58CV(A,X)155–22
CSPH*6012A**	1.00	0.96	58CV(A,X)155–22
CAP**4823A**	0.97	0.97	58HDV080––20
CAP**6025A**	0.99	0.99	58HDV080––20
CNPH*4821A**	0.98	0.98	58HDV080––20
CNPH*6024A**	0.99	0.99	58HDV080––20
CNPH*6124A**	0.99	0.99	58HDV080––20
CNPV*4821A**	0.97	0.98	58HDV080––20
CNPV*4824A**	0.97	0.97	58HDV080––20
CNPV*6024A**	0.99	0.99	58HDV080––20
CNPV*6124A**	1.00	0.96	58HDV080––20
CSPH*4812A**	0.99	0.99	58HDV080––20
CSPH*6012A**	1.00	1.00	58HDV080––20
CAP**4823A**	0.97	0.97	58HDV100––20
CAP**6025A**	0.99	0.95	58HDV100––20
CNPH*4821A**	0.98	0.98	58HDV100––20
CNPH*6024A**	0.99	0.99	58HDV100––20
CNPH*6124A**	0.99	0.99	58HDV100––20
CNPV*4824A**	0.97	0.97	58HDV100––20
CNPV*6024A**	0.99	0.99	58HDV100––20
CNPV*6124A**	1.00	0.96	58HDV100––20
CSPH*4812A**	0.99	0.99	58HDV100––20
CSPH*6012A**	1.00	1.00	58HDV100––20
CAP**4817A**	0.96	0.96	58ME(B,C)080–16
CAP**4821A**	0.97	0.97	58ME(B,C)080–16
CAP**6021A**	0.99	0.99	58ME(B,C)080–16
CNPH*4821A**	0.98	0.98	58ME(B,C)080–16
CNPH*6024A**	0.99	0.99	58ME(B,C)080–16
CNPV*4821A**	0.98	0.98	58ME(B,C)080–16
CSPH*4812A**	0.98	0.98	58ME(B,C)080–16
CSPH*6012A**	1.00	1.00	58ME(B,C)080–16

DETAILED COOLING CAPACITIES# (CONT.)

24ABC648A31 Outdoor Section With CAP**6024* Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4817A**	0.96	0.92	58ME(B,C)100−20
CAP**4821A**	0.97	0.97	58ME(B,C)100−20
CAP**4824A**	0.97	0.97	58ME(B,C)100−20
CAP**6021A**	0.99	0.95	58ME(B,C)100−20
CAP**6024A**	0.99	0.95	58ME(B,C)100−20
CNPH*4821A**	0.98	0.98	58ME(B,C)100−20
CNPH*6024A**	0.99	0.95	58ME(B,C)100−20
CNPV*4821A**	0.98	0.98	58ME(B,C)100−20
CNPV*4824A**	0.98	0.98	58ME(B,C)100−20
CNPV*6024A**	0.99	0.95	58ME(B,C)100−20
CSPH*4812A**	0.98	0.94	58ME(B,C)100−20
CSPH*6012A**	1.00	0.96	58ME(B,C)100−20
CAP**4821A**	0.98	0.94	58ME(B,C)120−20
CAP**4824A**	0.98	0.94	58ME(B,C)120−20
CAP**6021A**	0.99	0.95	58ME(B,C)120−20
CAP**6024A**	0.99	0.95	58ME(B,C)120−20
CNPH*4821A**	0.98	0.94	58ME(B,C)120−20
CNPH*6024A**	1.00	0.96	58ME(B,C)120−20
CNPV*4821A**	0.98	0.94	58ME(B,C)120−20
CNPV*4824A**	0.98	0.94	58ME(B,C)120−20
CNPV*6024A**	1.00	0.96	58ME(B,C)120−20
CSPH*4812A**	0.98	0.94	58ME(B,C)120−20
CSPH*6012A**	1.00	0.96	58ME(B,C)120−20
CNPH*6124A**	1.00	1.00	58MEC080−16
CNPH*6124A**	1.00	0.96	58MEC100−20
CNPV*6124A**	1.01	0.97	58MEC100−20
CNPH*6124A**	1.00	0.96	58MEC120−20
CNPV*6124A**	1.01	0.97	58MEC120−20
CAP**4817A**	0.96	0.96	58MV(B,C)080−20
CAP**4821A**	0.96	0.96	58MV(B,C)080−20
CAP**4824A**	0.96	0.96	58MV(B,C)080−20
CAP**6021A**	0.98	0.94	58MV(B,C)080−20
CAP**6024A**	0.98	0.98	58MV(B,C)080−20
CNPH*4821A**	0.97	0.97	58MV(B,C)080−20
CNPH*6024A**	0.98	0.98	58MV(B,C)080−20
CNPH*6124A**	0.99	0.99	58MV(B,C)080−20
CNPV*4821A**	0.97	0.97	58MV(B,C)080−20
CNPV*4824A**	0.97	0.97	58MV(B,C)080−20
CNPV*6024A**	0.98	0.98	58MV(B,C)080−20
CNPV*6124A**	1.00	1.00	58MV(B,C)080−20
CSPH*4812A**	0.97	0.97	58MV(B,C)080−20
CSPH*6012A**	0.98	0.98	58MV(B,C)080−20
CAP**4817A**	0.96	0.96	58MV(B,C)100−20
CAP**4821A**	0.97	0.97	58MV(B,C)100−20
CAP**4824A**	0.97	0.97	58MV(B,C)100−20
CAP**6021A**	0.98	0.94	58MV(B,C)100−20
CAP**6024A**	0.99	0.99	58MV(B,C)100−20
CNPH*4821A**	0.97	0.97	58MV(B,C)100−20
CNPH*6024A**	0.99	0.99	58MV(B,C)100−20
CNPH*6124A**	0.99	0.99	58MV(B,C)100−20
CNPV*4821A**	0.97	0.97	58MV(B,C)100−20
CNPV*4824A**	0.97	0.97	58MV(B,C)100−20
CNPV*6024A**	0.98	0.98	58MV(B,C)100−20
CNPV*6124A**	1.00	1.00	58MV(B,C)100−20
CSPH*4812A**	0.98	0.98	58MV(B,C)100−20
CSPH*6012A**	0.99	0.99	58MV(B,C)100−20
CAP**4821A**	0.97	0.97	58MV(B,C)120−20
CAP**4824A**	0.97	0.97	58MV(B,C)120−20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**6021A**	0.98	0.94	58MV(B,C)120−20
CAP**6024A**	0.99	0.99	58MV(B,C)120−20
CNPH*4821A**	0.97	0.97	58MV(B,C)120−20
CNPH*6024A**	0.99	0.99	58MV(B,C)120−20
CNPH*6124A**	0.99	0.99	58MV(B,C)120−20
CNPV*4821A**	0.97	0.97	58MV(B,C)120−20
CNPV*4824A**	0.97	0.97	58MV(B,C)120−20
CNPV*6024A**	0.99	0.99	58MV(B,C)120−20
CNPV*6124A**	1.00	0.96	58MV(B,C)120−20
CSPH*4812A**	0.98	0.98	58MV(B,C)120−20
CSPH*6012A**	0.99	0.95	58MV(B,C)120−20
CAP**4817A**	0.96	0.96	58PH*090−16
CAP**4821A**	0.97	0.97	58PH*090−16
CAP**4824A**	0.97	0.97	58PH*090−16
CAP**6021A**	0.99	0.95	58PH*090−16
CAP**6024A**	0.99	0.95	58PH*090−16
CNPH*4821A**	0.98	0.98	58PH*090−16
CNPH*6024A**	0.99	0.95	58PH*090−16
CNPH*6124A**	1.00	1.00	58PH*090−16
CNPV*4821A**	0.98	0.98	58PH*090−16
CNPV*4824A**	0.98	0.98	58PH*090−16
CNPV*6024A**	0.99	0.95	58PH*090−16
CNPV*6124A**	1.01	0.97	58PH*090−16
CSPH*4812A**	0.98	0.98	58PH*090−16
CSPH*6012A**	1.00	0.96	58PH*090−16
CAP**4817A**	0.96	0.92	58PH*110−20
CAP**4821A**	0.97	0.93	58PH*110−20
CAP**4824A**	0.97	0.97	58PH*110−20
CAP**6021A**	0.99	0.95	58PH*110−20
CAP**6024A**	0.99	0.95	58PH*110−20
CNPH*4821A**	0.98	0.94	58PH*110−20
CNPH*6024A**	0.99	0.95	58PH*110−20
CNPH*6124A**	1.00	0.96	58PH*110−20
CNPV*4821A**	0.98	0.94	58PH*110−20
CNPV*4824A**	0.98	0.94	58PH*110−20
CNPV*6024A**	0.99	0.95	58PH*110−20
CNPV*6124A**	1.01	0.97	58PH*110−20
CSPH*4812A**	0.98	0.94	58PH*110−20
CSPH*6012A**	1.00	0.96	58PH*110−20
CAP**4821A**	0.97	0.97	58PH*135−20
CAP**4824A**	0.97	0.97	58PH*135−20
CAP**6021A**	0.99	0.95	58PH*135−20
CAP**6024A**	0.99	0.95	58PH*135−20
CNPH*4821A**	0.98	0.98	58PH*135−20
CNPH*6024A**	0.99	0.95	58PH*135−20
CNPH*6124A**	1.00	0.96	58PH*135−20
CNPV*4821A**	0.98	0.98	58PH*135−20
CNPV*4824A**	0.98	0.98	58PH*135−20
CNPV*6024A**	0.99	0.95	58PH*135−20
CNPV*6124A**	1.01	0.97	58PH*135−20
CSPH*4812A**	0.98	0.98	58PH*135−20
CSPH*6012A**	1.00	0.96	58PH*135−20
CAP**4817A**	0.96	0.96	58UVB080−20
CAP**4817A**	0.96	0.96	58UVB080−20
CAP**4821A**	0.96	0.96	58UVB080−20
CAP**4821A**	0.96	0.96	58UVB080−20
CAP**4824A**	0.96	0.96	58UVB080−20
CAP**4824A**	0.96	0.96	58UVB080−20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**6021A**	0.98	0.94	58UVB080−20
CAP**6021A**	0.98	0.94	58UVB080−20
CAP**6024A**	0.98	0.98	58UVB080−20
CAP**6024A**	0.98	0.98	58UVB080−20
CNPV*4821A**	0.97	0.97	58UVB080−20
CNPV*4821A**	0.97	0.97	58UVB080−20
CNPV*4824A**	0.97	0.97	58UVB080−20
CNPV*4824A**	0.97	0.97	58UVB080−20
CNPV*6024A**	0.98	0.98	58UVB080−20
CNPV*6024A**	0.98	0.98	58UVB080−20
CNPV*6124A**	1.00	1.00	58UVB080−20
CAP**4817A**	0.96	0.96	58UVB100−20
CAP**4817A**	0.96	0.96	58UVB100−20
CAP**4821A**	0.97	0.97	58UVB100−20
CAP**4821A**	0.97	0.97	58UVB100−20
CAP**4824A**	0.97	0.97	58UVB100−20
CAP**4824A**	0.97	0.97	58UVB100−20
CAP**6021A**	0.98	0.94	58UVB100−20
CAP**6021A**	0.98	0.94	58UVB100−20
CAP**6024A**	0.99	0.99	58UVB100−20
CAP**6024A**	0.99	0.99	58UVB100−20
CNPV*4821A**	0.97	0.97	58UVB100−20
CNPV*4821A**	0.97	0.97	58UVB100−20
CNPV*4824A**	0.97	0.97	58UVB100−20
CNPV*4824A**	0.97	0.97	58UVB100−20
CNPV*6024A**	0.98	0.98	58UVB100−20
CNPV*6024A**	0.98	0.98	58UVB100−20
CNPV*6124A**	1.00	1.00	58UVB100−20
CAP**4821A**	0.97	0.97	58UVB120−20
CAP**4821A**	0.97	0.97	58UVB120−20
CAP**4824A**	0.97	0.97	58UVB120−20
CAP**4824A**	0.97	0.97	58UVB120−20
CAP**6021A**	0.98	0.94	58UVB120−20
CAP**6021A**	0.98	0.94	58UVB120−20
CAP**6024A**	0.99	0.99	58UVB120−20
CAP**6024A**	0.99	0.99	58UVB120−20
CNPV*4821A**	0.97	0.97	58UVB120−20
CNPV*4821A**	0.97	0.97	58UVB120−20
CNPV*4824A**	0.97	0.97	58UVB120−20
CNPV*4824A**	0.97	0.97	58UVB120−20
CNPV*6024A**	0.99	0.99	58UVB120−20
CNPV*6024A**	0.99	0.99	58UVB120−20
CNPV*6124A**	1.00	0.96	58UVB120−20
CAP**4817A**	0.97	0.95	58VLR120−20
CAP**4821A**	0.97	0.97	58VLR120−20
CAP**4824A**	0.97	0.97	58VLR120−20
CAP**6021A**	0.98	0.94	58VLR120−20
CAP**6024A**	0.98	0.94	58VLR120−20
CNPH*4821A**	0.98	0.98	58VLR120−20
CNPH*6024A**	0.98	0.94	58VLR120−20
CNPH*6124A**	0.99	0.99	58VLR120−20
CNPV*4821A**	0.98	0.98	58VLR120−20
CNPV*4824A**	0.98	0.98	58VLR120−20
CNPV*6024A**	0.98	0.94	58VLR120−20
CNPV*6124A**	1.00	0.96	58VLR120−20
CSPH*4812A**	0.98	0.98	58VLR120−20
CSPH*6012A**	0.98	0.94	58VLR120−20
CAP**4817A**	0.97	0.95	58VMR120−20

DETAILED COOLING CAPACITIES# (CONT.)

24ABC648A31 Outdoor Section With CAP**6024* Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4821A**	0.97	0.97	58VMR120–20
CAP**4824A**	0.97	0.97	58VMR120–20
CAP**6021A**	0.99	0.99	58VMR120–20
CAP**6024A**	0.99	0.99	58VMR120–20
CNPH*4821A**	0.98	0.98	58VMR120–20
CNPH*6024A**	0.99	0.99	58VMR120–20
CNPH*6124A**	0.99	0.99	58VMR120–20
CNPV*4821A**	0.98	0.98	58VMR120–20
CNPV*4824A**	0.98	0.98	58VMR120–20
CNPV*6024A**	0.98	0.94	58VMR120–20
CNPV*6124A**	1.00	0.96	58VMR120–20
CSPH*4812A**	0.98	0.98	58VMR120–20
CSPH*6012A**	0.98	0.94	58VMR120–20
CAP**4821A**	0.91	0.91	59*N*A100V21**20
CAP**4823A**	0.91	0.91	59*N*A100V21**20
CAP**4824A**	0.91	0.91	59*N*A100V21**20
CAP**6021A**	0.97	0.95	59*N*A100V21**20
CAP**6024A**	0.97	0.95	59*N*A100V21**20
CAP**6025A**	0.97	0.95	59*N*A100V21**20
CNPH*4821A**	0.91	0.90	59*N*A100V21**20
CNPH*6024A**	0.97	0.95	59*N*A100V21**20
CNPH*6124A**	0.98	0.96	59*N*A100V21**20
CNPV*4821A**	0.91	0.90	59*N*A100V21**20
CNPV*4824A**	0.91	0.90	59*N*A100V21**20
CNPV*6024A**	0.97	0.95	59*N*A100V21**20
CNPV*6124A**	0.99	0.95	59*N*A100V21**20
CSPH*4812A**	0.97	0.95	59*N*A100V21**20
CSPH*6012A**	0.98	0.94	59*N*A100V21**20
CAP**4823A**	0.91	0.90	59*N*A120V24**22
CAP**4824A**	0.91	0.90	59*N*A120V24**22
CAP**6024A**	0.98	0.94	59*N*A120V24**22
CAP**6025A**	0.98	0.94	59*N*A120V24**22
CNPH*4821A**	0.91	0.90	59*N*A120V24**22
CNPH*6024A**	0.97	0.93	59*N*A120V24**22
CNPH*6124A**	0.98	0.94	59*N*A120V24**22
CNPV*4824A**	0.91	0.90	59*N*A120V24**22
CNPV*6024A**	0.97	0.93	59*N*A120V24**22
CNPV*6124A**	0.99	0.94	59*N*A120V24**22
CSPH*4812A**	0.97	0.95	59*N*A120V24**22
CSPH*6012A**	0.98	0.94	59*N*A120V24**22
CNPH*4821A**	0.91	0.91	59*P5A080E17**16
CNPH*6024A**	0.98	0.98	59*P5A080E17**16
CNPV*4821A**	0.91	0.91	59*P5A080E17**16
CSPH*6012A**	0.98	0.96	59*P5A080E17**16
CAP**4821A**	0.91	0.91	59*P5A100E21**16
CAP**4823A**	0.91	0.91	59*P5A100E21**16
CAP**4824A**	0.91	0.91	59*P5A100E21**16
CAP**6021A**	0.98	0.96	59*P5A100E21**16
CAP**6024A**	0.98	0.96	59*P5A100E21**16
CAP**6025A**	0.98	0.96	59*P5A100E21**16
CNPH*4821A**	0.97	0.97	59*P5A100E21**16
CNPH*6024A**	0.98	0.96	59*P5A100E21**16
CNPH*6124A**	0.98	0.96	59*P5A100E21**16
CNPV*4821A**	0.97	0.97	59*P5A100E21**16
CNPV*4824A**	0.97	0.97	59*P5A100E21**16
CNPV*6024A**	0.98	0.96	59*P5A100E21**16
CNPV*6124A**	0.99	0.95	59*P5A100E21**16
CSPH*4812A**	0.97	0.97	59*P5A100E21**16
CSPH*6012A**	0.99	0.97	59*P5A100E21**16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4823A**	0.97	0.95	59*P5A120E24**22
CAP**4824A**	0.97	0.95	59*P5A120E24**22
CAP**6024A**	0.99	0.95	59*P5A120E24**22
CAP**6025A**	0.99	0.95	59*P5A120E24**22
CNPH*4821A**	0.97	0.95	59*P5A120E24**22
CNPH*6024A**	0.99	0.95	59*P5A120E24**22
CNPH*6124A**	0.99	0.95	59*P5A120E24**22
CNPV*4824A**	0.97	0.95	59*P5A120E24**22
CNPV*6024A**	0.99	0.95	59*P5A120E24**22
CNPV*6124A**	1.00	0.95	59*P5A120E24**22
CSPH*4812A**	0.98	0.96	59*P5A120E24**22
CSPH*6012A**	0.99	0.95	59*P5A120E24**22
CNPH*4821A**	0.97	1.01	OVLAAB048112
CNPH*6024A**	0.98	0.98	OVLAAB048112
CNPH*6124A**	0.98	1.02	OVLAAB048112
CNPV*4821A**	0.97	1.01	OVLAAB048112
CNPV*4824A**	0.97	1.01	OVLAAB048112
CNPV*6024A**	0.98	1.02	OVLAAB048112
CNPV*6124A**	0.99	0.99	OVLAAB048112
CSPH*4812A**	0.97	1.01	OVLAAB048112
CSPH*6012A**	0.99	0.99	OVLAAB048112
CNPH*4821A**	0.98	0.98	OVLAAB060154
CNPH*6024A**	1.00	1.00	OVLAAB060154
CNPH*6124A**	1.00	1.00	OVLAAB060154
CNPV*4824A**	0.98	1.02	OVLAAB060154
CNPV*6024A**	1.00	1.00	OVLAAB060154
CNPV*6124A**	1.01	0.97	OVLAAB060154
CSPH*4812A**	0.99	0.99	OVLAAB060154
CSPH*6012A**	1.00	0.96	OVLAAB060154

See notes on pg. 78

DETAILED COOLING CAPACITIES# (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
24ABC649A**30 Outdoor Section With CAP**6024A* Indoor Section																			
1400	72 (22.2)	57.54	29.08	3.21	54.91	28.10	3.66	52.22	27.11	4.12	49.43	26.10	4.59	46.46	25.03	5.09	43.18	23.88	5.66
	67 (19.4)	52.60	35.60	3.24	50.19	34.61	3.67	47.73	33.62	4.10	45.16	32.59	4.55	42.41	31.50	5.06	39.40	30.33	5.62
	63 (17.2)††	49.11	34.57	3.26	46.86	33.58	3.67	44.56	32.57	4.08	42.14	31.53	4.53	39.56	30.44	5.03	36.72	29.25	5.60
	62 (16.7)	48.14	42.09	3.26	45.97	41.09	3.66	43.75	40.07	4.08	41.45	38.99	4.52	39.06	39.06	5.02	36.78	36.78	5.60
	57 (13.9)	46.53	46.53	3.26	44.81	44.81	3.66	43.02	43.02	4.07	41.13	41.13	4.52	39.07	39.07	5.02	36.78	36.78	5.60
1600	72 (22.2)	58.62	30.51	3.27	55.85	29.51	3.73	53.04	28.50	4.19	50.14	27.47	4.66	47.06	26.39	5.17	43.67	25.22	5.74
	67 (19.4)	53.60	37.89	3.30	51.08	36.88	3.74	48.50	35.86	4.17	45.83	34.82	4.63	42.99	33.72	5.13	39.88	32.52	5.70
	63 (17.2)††	50.08	36.71	3.32	47.72	35.70	3.74	45.31	34.68	4.16	42.81	33.63	4.61	40.14	32.51	5.11	37.20	31.30	5.68
	62 (16.7)	49.23	45.22	3.32	46.99	44.16	3.74	44.76	44.49	4.16	42.69	42.69	4.61	40.49	40.49	5.11	38.05	38.05	5.68
	57 (13.9)	48.50	48.50	3.33	46.64	46.64	3.74	44.72	44.72	4.16	42.69	42.69	4.61	40.50	40.50	5.11	38.05	38.05	5.68
1800	72 (22.2)	59.40	31.86	3.33	56.54	30.84	3.80	53.64	29.82	4.26	50.65	28.78	4.74	47.47	27.68	5.25	43.99	26.50	5.81
	67 (19.4)	54.34	40.07	3.36	51.73	39.04	3.81	49.07	38.01	4.25	46.33	36.96	4.71	43.41	35.84	5.21	40.23	34.61	5.78
	63 (17.2)††	50.79	38.76	3.39	48.35	37.73	3.81	45.87	36.70	4.23	43.30	35.63	4.69	40.56	34.49	5.19	37.56	33.24	5.76
	62 (16.7)	50.22	49.72	3.39	48.15	48.15	3.81	46.11	46.11	4.24	43.96	43.96	4.69	41.64	41.64	5.19	39.07	39.07	5.77
	57 (13.9)	50.13	50.13	3.39	48.15	48.15	3.81	46.11	46.11	4.24	43.96	43.96	4.69	41.64	41.64	5.19	39.07	39.07	5.77

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CAP**6024A**	1.00	1.00	
CAP**4817A**	0.97	0.97	
CAP**4821A**	0.99	1.01	
CAP**4823A**	0.99	1.01	
CAP**4824A**	0.99	1.01	
CAP**6021A**	1.00	1.00	
CAP**6025A**	1.00	1.00	
CNPF*4818A**	0.97	0.99	
CNPH*4821A**	0.99	1.01	
CNPH*6024A**	1.00	1.00	
CNPH*6124A**	1.00	1.00	
CNPV*4821A**	0.99	1.01	
CNPV*4824A**	0.99	1.01	
CNPV*6024A**	1.00	1.00	
CNPV*6124A**	1.00	1.00	
CSPH*4812A**	0.99	0.99	
CSPH*6012A**	1.00	1.00	
FE4AN(B,F)005	1.00	0.94	
FE4ANB006	1.00	0.90	
FV4BN(B,F)005	1.00	0.94	
FV4BNB006	1.01	0.93	
FV4CN(B,F)005	1.00	0.94	
FV4CNB006	1.00	0.90	
FX4CN(B,F)048	1.01	0.99	
FX4CN(B,F)060	1.02	0.98	
FY4ANB060	1.01	1.03	
FY4ANF048	1.00	1.04	
CAP**4817A**	0.97	0.94	58CV(A,X)090–16
CNPH*4821A**	0.98	0.95	58CV(A,X)090–16
CNPH*6024A**	0.99	0.95	58CV(A,X)090–16
CNPH*6124A**	0.99	0.96	58CV(A,X)090–16
CSPH*4812A**	0.98	0.95	58CV(A,X)090–16
CSPH*6012A**	1.00	0.96	58CV(A,X)090–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**4821A**	0.97	0.94	58CV(A,X)110–20
CAP**6021A**	0.99	0.93	58CV(A,X)110–20
CNPH*4821A**	0.98	0.94	58CV(A,X)110–20
CNPH*6024A**	0.99	0.95	58CV(A,X)110–20
CNPH*6124A**	0.99	0.95	58CV(A,X)110–20
CNPV*4821A**	0.98	0.94	58CV(A,X)110–20
CNPV*6024A**	0.99	0.93	58CV(A,X)110–20
CNPV*6124A**	1.00	0.96	58CV(A,X)110–20
CSPH*4812A**	0.98	0.94	58CV(A,X)110–20
CSPH*6012A**	1.00	0.94	58CV(A,X)110–20
CAP**4824A**	0.98	0.94	58CV(A,X)135–22
CAP**6024A**	1.00	0.94	58CV(A,X)135–22
CNPH*4821A**	0.98	0.94	58CV(A,X)135–22
CNPH*6024A**	1.00	0.94	58CV(A,X)135–22
CNPH*6124A**	1.00	0.96	58CV(A,X)135–22
CNPV*4824A**	0.98	0.94	58CV(A,X)135–22
CNPV*6024A**	1.00	0.94	58CV(A,X)135–22
CNPV*6124A**	1.00	0.94	58CV(A,X)135–22
CSPH*4812A**	0.99	0.95	58CV(A,X)135–22
CSPH*6012A**	1.00	0.94	58CV(A,X)135–22
CAP**4824A**	0.98	0.94	58CV(A,X)155–22
CAP**6024A**	1.00	0.94	58CV(A,X)155–22
CNPH*4821A**	0.98	0.92	58CV(A,X)155–22
CNPH*6024A**	1.00	0.94	58CV(A,X)155–22
CNPH*6124A**	1.00	0.94	58CV(A,X)155–22
CNPV*4824A**	0.98	0.92	58CV(A,X)155–22
CNPV*6024A**	1.00	0.94	58CV(A,X)155–22
CNPV*6124A**	1.00	0.92	58CV(A,X)155–22
CSPH*4812A**	0.98	0.94	58CV(A,X)155–22
CSPH*6012A**	1.00	0.94	58CV(A,X)155–22
CAP**4823A**	0.98	1.00	58HDV080––20
CNPH*4821A**	0.98	1.00	58HDV080––20
CNPH*6024A**	1.00	0.98	58HDV080––20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*6124A**	1.00	0.98	58HDV080––20
CSPH*4812A**	0.99	1.01	58HDV080––20
CSPH*6012A**	1.00	0.98	58HDV080––20
CAP**4824A**	0.97	0.94	58HDV100––20
CAP**6024A**	1.00	0.98	58HDV100––20
CAP**6025A**	1.00	0.98	58HDV100––20
CNPH*4821A**	0.98	0.95	58HDV100––20
CNPH*6024A**	0.99	0.96	58HDV100––20
CNPH*6124A**	1.00	0.98	58HDV100––20
CNPV*4824A**	0.98	0.95	58HDV100––20
CNPV*6024A**	0.99	0.96	58HDV100––20
CNPV*6124A**	1.00	0.98	58HDV100––20
CSPH*4812A**	0.98	0.95	58HDV100––20
CSPH*6012A**	1.00	0.98	58HDV100––20
CAP**4817A**	0.98	0.95	58ME(B,C)080–16
CNPH*4821A**	0.98	0.95	58ME(B,C)080–16
CNPH*6024A**	0.99	0.96	58ME(B,C)080–16
CNPH*6124A**	1.00	0.98	58ME(B,C)080–16
CSPH*4812A**	0.98	0.95	58ME(B,C)080–16
CSPH*6012A**	1.00	0.98	58ME(B,C)080–16
CAP**4821A**	0.98	0.95	58ME(B,C)100–20
CAP**6021A**	1.00	0.94	58ME(B,C)100–20
CNPH*4821A**	0.98	0.95	58ME(B,C)100–20
CNPH*6024A**	1.00	0.94	58ME(B,C)100–20
CNPH*6024A**	1.00	0.94	58ME(B,C)100–20
CNPH*6124A**	1.00	0.96	58ME(B,C)100–20
CNPV*4821A**	0.98	0.95	58ME(B,C)100–20
CNPV*6024A**	1.00	0.94	58ME(B,C)100–20
CNPV*6024A**	1.00	0.94	58ME(B,C)100–20
CNPV*6124A**	1.00	0.94	58ME(B,C)100–20
CSPH*4812A**	0.98	0.95	58ME(B,C)100–20
CSPH*6012A**	1.00	0.94	58ME(B,C)100–20
CAP**4824A**	0.98	0.95	58ME(B,C)120–20

DETAILED COOLING CAPACITIES# (CONT.)

24ABC649A30 Outdoor Section With CAP**6024A* Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**6024A**	1.00	0.94	58ME(B,C)120–20
CNPH*4821A**	0.99	0.96	58ME(B,C)120–20
CNPH*6024A**	1.00	0.94	58ME(B,C)120–20
CNPH*6024A**	1.00	0.94	58ME(B,C)120–20
CNPH*6124A**	1.00	0.96	58ME(B,C)120–20
CNPV*4824A**	0.98	0.95	58ME(B,C)120–20
CNPV*6024A**	1.00	0.94	58ME(B,C)120–20
CNPV*6124A**	1.00	0.94	58ME(B,C)120–20
CSPH*4812A**	0.98	0.95	58ME(B,C)120–20
CSPH*6012A**	1.00	0.94	58ME(B,C)120–20
CAP**4821A**	0.97	0.97	58MV(B,C)080–20
CAP**6021A**	0.99	0.95	58MV(B,C)080–20
CNPH*4821A**	0.97	0.94	58MV(B,C)080–20
CNPH*6024A**	0.99	0.95	58MV(B,C)080–20
CNPH*6124A**	0.99	0.96	58MV(B,C)080–20
CNPV*4821A**	0.97	0.94	58MV(B,C)080–20
CNPV*6124A**	0.99	0.95	58MV(B,C)080–20
CSPH*4812A**	0.97	0.97	58MV(B,C)080–20
CSPH*6012A**	0.99	0.95	58MV(B,C)080–20
CAP**4821A**	0.97	0.94	58MV(B,C)100–20
CAP**6021A**	0.99	0.95	58MV(B,C)100–20
CNPH*4821A**	0.97	0.94	58MV(B,C)100–20
CNPH*6024A**	0.99	0.95	58MV(B,C)100–20
CNPH*6124A**	1.00	0.98	58MV(B,C)100–20
CNPV*4821A**	0.97	0.94	58MV(B,C)100–20
CNPV*6124A**	1.00	0.98	58MV(B,C)100–20
CSPH*4812A**	0.97	0.94	58MV(B,C)100–20
CSPH*6012A**	1.00	0.96	58MV(B,C)100–20
CAP**4824A**	0.97	0.94	58MV(B,C)120–20
CAP**6024A**	0.99	0.95	58MV(B,C)120–20
CNPH*4821A**	0.97	0.94	58MV(B,C)120–20
CNPH*6024A**	0.99	0.95	58MV(B,C)120–20
CNPH*6124A**	0.99	0.95	58MV(B,C)120–20
CNPV*4824A**	0.97	0.94	58MV(B,C)120–20
CNPV*6024A**	0.99	0.95	58MV(B,C)120–20
CNPV*6124A**	1.00	0.96	58MV(B,C)120–20
CSPH*4812A**	0.98	0.95	58MV(B,C)120–20
CSPH*6012A**	1.00	0.96	58MV(B,C)120–20
CAP**4817A**	0.96	1.00	58PH*070–16
CNPH*4821A**	0.97	1.01	58PH*070–16
CNPH*6024A**	0.99	1.01	58PH*070–16
CNPH*6124A**	0.99	1.02	58PH*070–16
CSPH*4812A**	0.97	1.01	58PH*070–16
CSPH*6012A**	0.99	1.01	58PH*070–16
CAP**4821A**	0.98	0.95	58PH*090–16
CAP**6021A**	0.99	0.95	58PH*090–16
CNPH*4821A**	0.98	0.95	58PH*090–16
CNPH*6024A**	1.00	0.96	58PH*090–16
CNPH*6124A**	1.00	0.96	58PH*090–16
CNPV*4821A**	0.98	0.95	58PH*090–16
CNPV*6124A**	1.01	0.97	58PH*090–16
CSPH*4812A**	0.98	0.95	58PH*090–16

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*6012A**	1.00	0.96	58PH*090–16
CAP**4821A**	0.98	0.94	58PH*110–20
CAP**6021A**	0.99	0.93	58PH*110–20
CNPH*4821A**	0.98	0.94	58PH*110–20
CNPH*6024A**	1.00	0.94	58PH*110–20
CNPH*6124A**	1.00	0.96	58PH*110–20
CNPV*4821A**	0.98	0.94	58PH*110–20
CNPV*6024A**	1.00	0.94	58PH*110–20
CNPV*6124A**	1.00	0.94	58PH*110–20
CSPH*4812A**	0.98	0.94	58PH*110–20
CSPH*6012A**	1.00	0.94	58PH*110–20
CAP**4824A**	0.98	0.94	58PH*135–20
CAP**6024A**	1.00	0.96	58PH*135–20
CNPH*4821A**	0.98	0.94	58PH*135–20
CNPH*6024A**	1.00	0.96	58PH*135–20
CNPH*6124A**	1.00	0.96	58PH*135–20
CNPV*4824A**	0.98	0.94	58PH*135–20
CNPV*6024A**	1.00	0.96	58PH*135–20
CNPV*6124A**	1.00	0.96	58PH*135–20
CSPH*4812A**	0.98	0.94	58PH*135–20
CSPH*6012A**	1.00	0.96	58PH*135–20
CAP**4821A**	0.97	0.97	58UVB080–20
CAP**4821A**	0.97	0.97	58UVB080–20
CAP**6021A**	0.99	0.95	58UVB080–20
CAP**6021A**	0.99	0.95	58UVB080–20
CNPV*4821A**	0.97	0.94	58UVB080–20
CNPV*4821A**	0.97	0.94	58UVB080–20
CNPV*6124A**	0.99	0.95	58UVB080–20
CNPV*6124A**	0.99	0.95	58UVB080–20
CAP**4821A**	0.97	0.94	58UVB100–20
CAP**4821A**	0.97	0.94	58UVB100–20
CAP**6021A**	0.99	0.95	58UVB100–20
CAP**6021A**	0.99	0.95	58UVB100–20
CNPV*4821A**	0.97	0.94	58UVB100–20
CNPV*4821A**	0.97	0.94	58UVB100–20
CNPV*6124A**	1.00	0.98	58UVB100–20
CNPV*6124A**	1.00	0.98	58UVB100–20
CAP**4824A**	0.97	0.94	58UVB120–20
CAP**4824A**	0.97	0.94	58UVB120–20
CAP**6024A**	0.99	0.95	58UVB120–20
CAP**6024A**	0.99	0.95	58UVB120–20
CNPV*4824A**	0.97	0.94	58UVB120–20
CNPV*4824A**	0.97	0.94	58UVB120–20
CNPV*6024A**	0.99	0.95	58UVB120–20
CNPV*6024A**	0.99	0.95	58UVB120–20
CNPV*6124A**	1.00	0.96	58UVB120–20
CNPV*6124A**	1.00	0.96	58UVB120–20
CAP**4821A**	0.97	0.94	58VLR120–20
CAP**6021A**	0.99	0.96	58VLR120–20
CNPH*4821A**	0.97	0.94	58VLR120–20
CNPH*6024A**	0.99	0.96	58VLR120–20
CNPH*6124A**	0.99	0.96	58VLR120–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*4821A**	0.97	0.94	58VLR120–20
CSPH*4812A**	0.98	0.95	58VLR120–20
CSPH*6012A**	0.99	0.93	58VLR120–20
CAP**4821A**	0.97	0.95	58VMR120–20
CAP**6021A**	0.99	0.96	58VMR120–20
CNPH*4821A**	0.97	0.94	58VMR120–20
CNPH*6024A**	0.99	0.96	58VMR120–20
CNPH*6124A**	0.99	0.96	58VMR120–20
CNPV*4821A**	0.97	0.94	58VMR120–20
CSPH*4812A**	0.98	0.95	58VMR120–20
CSPH*6012A**	0.99	0.96	58VMR120–20
CAP**4821A**	0.96	0.95	59*N*A100V21**20
CAP**4823A**	0.96	0.95	59*N*A100V21**20
CAP**4824A**	0.96	0.95	59*N*A100V21**20
CAP**6021A**	0.98	0.95	59*N*A100V21**20
CAP**6024A**	0.98	0.95	59*N*A100V21**20
CAP**6025A**	0.98	0.95	59*N*A100V21**20
CNPH*4821A**	0.97	0.94	59*N*A100V21**20
CNPH*6024A**	0.98	0.95	59*N*A100V21**20
CNPH*6124A**	0.99	0.96	59*N*A100V21**20
CNPV*4821A**	0.97	0.94	59*N*A100V21**20
CNPV*4824A**	0.97	0.94	59*N*A100V21**20
CNPV*6024A**	0.98	0.95	59*N*A100V21**20
CNPV*6124A**	0.99	0.93	59*N*A100V21**20
CSPH*4812A**	0.97	0.94	59*N*A100V21**20
CSPH*6012A**	0.99	0.96	59*N*A100V21**20
CAP**4823A**	0.96	0.93	59*N*A120V24**22
CAP**4824A**	0.96	0.93	59*N*A120V24**22
CAP**6024A**	0.98	0.92	59*N*A120V24**22
CAP**6025A**	0.98	0.92	59*N*A120V24**22
CNPH*4821A**	0.97	0.94	59*N*A120V24**22
CNPH*6024A**	0.98	0.92	59*N*A120V24**22
CNPH*6124A**	0.99	0.93	59*N*A120V24**22
CNPV*4824A**	0.97	0.94	59*N*A120V24**22
CNPV*6024A**	0.98	0.92	59*N*A120V24**22
CNPV*6124A**	0.99	0.93	59*N*A120V24**22
CSPH*4812A**	0.97	0.94	59*N*A120V24**22
CSPH*6012A**	0.99	0.93	59*N*A120V24**22
CNPH*4821A**	0.97	0.99	59*P5A080E17**16
CNPH*6024A**	0.99	0.98	59*P5A080E17**16
CNPV*4821A**	0.97	0.99	59*P5A080E17**16
CSPH*6012A**	0.99	0.98	59*P5A080E17**16
CAP**4821A**	0.97	0.96	59*P5A100E21**16
CAP**4823A**	0.97	0.96	59*P5A100E21**16
CAP**4824A**	0.97	0.96	59*P5A100E21**16
CAP**6021A**	0.99	0.96	59*P5A100E21**16
CAP**6024A**	0.99	0.96	59*P5A100E21**16
CAP**6025A**	0.99	0.96	59*P5A100E21**16
CNPH*4821A**	0.97	0.96	59*P5A100E21**16
CNPH*6024A**	0.99	0.96	59*P5A100E21**16
CNPH*6124A**	0.99	0.96	59*P5A100E21**16
CNPV*4821A**	0.97	0.96	59*P5A100E21**16

DETAILED COOLING CAPACITIES# (CONT.)

24ABC649A30 Outdoor Section With CAP**6024A* Indoor Section**

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*4824A**	0.97	0.96	59*P5A100E21**16
CNPV*6024A**	0.99	0.96	59*P5A100E21**16
CNPV*6124A**	1.00	0.98	59*P5A100E21**16
CSPH*4812A**	0.98	0.97	59*P5A100E21**16
CSPH*6012A**	0.99	0.96	59*P5A100E21**16
CAP**4823A**	0.97	0.94	59*P5A120E24**22
CAP**4824A**	0.97	0.94	59*P5A120E24**22
CAP**6024A**	1.00	0.94	59*P5A120E24**22
CAP**6025A**	1.00	0.94	59*P5A120E24**22
CNPH*4821A**	0.98	0.95	59*P5A120E24**22
CNPH*6024A**	1.00	0.94	59*P5A120E24**22
CNPH*6124A**	1.00	0.94	59*P5A120E24**22
CNPV*4824A**	0.98	0.95	59*P5A120E24**22
CNPV*6024A**	1.00	0.94	59*P5A120E24**22
CNPV*6124A**	1.01	0.95	59*P5A120E24**22
CSPH*4812A**	0.98	0.95	59*P5A120E24**22
CSPH*6012A**	1.00	0.94	59*P5A120E24**22
CSPH*6012A**	1.00	1.02	OVLAAB048112
CNPH*4821A**	0.99	1.01	OVLAAB060154
CNPH*6024A**	1.00	0.98	OVLAAB060154
CNPH*6124A**	1.00	0.98	OVLAAB060154
CSPH*4812A**	1.00	1.02	OVLAAB060154
CSPH*6012A**	1.02	1.00	OVLAAB060154

See notes on pg. 78

DETAILED COOLING CAPACITIES# (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
24ABC660A**30 Outdoor Section With CNPV*6124A** Indoor Section																			
1750	72 (22.2)	67.62	33.62	3.61	64.17	32.46	4.00	60.58	31.27	4.41	56.79	30.03	4.86	52.77	28.73	5.37	48.49	27.36	5.94
	67 (19.4)	61.61	41.91	3.60	58.55	40.77	3.97	55.32	39.59	4.38	51.90	38.34	4.83	48.28	37.03	5.33	44.39	35.62	5.90
	63 (17.2)††	57.26	40.25	3.60	54.46	39.14	3.96	51.50	37.96	4.36	48.36	36.73	4.80	45.00	35.42	5.31	41.41	34.01	5.88
	62 (16.7)	56.64	50.02	3.59	54.07	53.77	3.96	51.61	51.61	4.36	48.99	48.99	4.81	46.15	46.15	5.32	43.04	43.04	5.90
	57 (13.9)	56.19	56.19	3.59	53.95	53.95	3.96	51.53	51.53	4.36	48.93	48.93	4.81	46.09	46.09	5.32	42.99	42.99	5.90
2000	72 (22.2)	68.55	35.38	3.71	64.97	34.21	4.10	61.24	32.99	4.51	57.31	31.73	4.96	53.16	30.40	5.47	48.76	29.01	6.04
	67 (19.4)	62.54	44.78	3.70	59.34	43.61	4.07	56.00	42.40	4.48	52.47	41.12	4.93	48.74	39.76	5.43	44.80	38.28	6.01
	63 (17.2)††	58.17	42.92	3.69	55.24	41.77	4.06	52.18	40.57	4.46	48.93	39.29	4.90	45.49	37.93	5.41	41.84	36.44	5.99
	62 (16.7)	58.38	58.38	3.69	55.95	55.95	4.06	53.34	53.34	4.47	50.54	50.54	4.92	47.51	47.51	5.42	44.19	44.19	6.00
	57 (13.9)	58.30	58.30	3.69	55.88	55.88	4.06	53.28	53.28	4.46	50.48	50.48	4.92	47.45	47.45	5.42	44.14	44.14	6.00
2250	72 (22.2)	69.20	37.05	3.81	65.50	35.85	4.20	61.65	34.62	4.61	57.62	33.34	5.06	53.39	32.00	5.57	48.89	30.59	6.14
	67 (19.4)	63.21	47.52	3.80	59.93	46.32	4.17	56.49	45.07	4.58	52.89	43.73	5.03	49.12	42.29	5.53	45.19	44.77	6.11
	63 (17.2)††	58.84	45.45	3.79	55.83	44.27	4.16	52.68	43.02	4.56	49.37	41.69	5.01	45.89	40.23	5.51	42.31	42.31	6.09
	62 (16.7)	60.10	60.10	3.79	57.51	57.51	4.16	54.74	54.74	4.57	51.77	51.77	5.02	48.57	48.57	5.53	45.09	45.09	6.11
	57 (13.9)	60.03	60.03	3.79	57.44	57.44	4.16	54.68	54.68	4.57	51.71	51.71	5.02	48.52	48.52	5.53	45.04	45.04	6.11

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*6124A**	1.00	1.00	
CAP**6021A**	0.96	0.96	
CAP**6024A**	0.98	0.98	
CAP**6025A**	0.98	0.98	
CNPH*6024A**	0.98	0.98	
CNPH*6124A**	0.98	0.98	
CNPV*6024A**	0.98	0.98	
CSPH*6012A**	0.98	0.98	
CSPH*6012A**	0.98	0.98	
FB4CNF060	0.96	0.93	
FE4ANB006	0.98	0.94	
FV4BNB006	0.98	0.90	
FV4CNB006	0.98	0.94	
FX4CN(B,F)060	0.99	0.92	
FX4DN(B,F)061	0.99	0.92	
FY4ANB060	0.98	1.01	
FY5BNB060	0.97	1.01	
CAP**6021A**	0.96	0.96	58CV(A,X)110–20
CAP**6024A**	0.96	0.96	58CV(A,X)110–20
CNPH*6024A**	0.96	0.96	58CV(A,X)110–20
CNPH*6124A**	0.96	0.96	58CV(A,X)110–20
CNPV*6024A**	0.96	0.96	58CV(A,X)110–20
CNPV*6124A**	0.98	0.94	58CV(A,X)110–20
CSPH*6012A**	0.96	0.96	58CV(A,X)110–20
CAP**6021A**	0.97	0.97	58CV(A,X)135–22
CAP**6024A**	0.96	0.93	58CV(A,X)135–22
CNPH*6024A**	0.96	0.93	58CV(A,X)135–22
CNPH*6124A**	0.97	0.94	58CV(A,X)135–22
CNPV*6024A**	0.96	0.93	58CV(A,X)135–22
CNPV*6124A**	0.98	0.94	58CV(A,X)135–22
CSPH*6012A**	0.97	0.94	58CV(A,X)135–22
CAP**6021A**	0.97	0.94	58CV(A,X)155–22
CAP**6024A**	0.97	0.94	58CV(A,X)155–22
CNPH*6024A**	0.97	0.94	58CV(A,X)155–22
CNPH*6124A**	0.97	0.94	58CV(A,X)155–22
CNPV*6024A**	0.97	0.94	58CV(A,X)155–22
CNPV*6124A**	0.99	0.95	58CV(A,X)155–22

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CSPH*6012A**	0.98	0.94	58CV(A,X)155–22
CNPV*6124A**	0.98	0.97	58HDV080– –20
CNPV*6124A**	0.98	0.94	58HDV100– –20
CNPH*6024A**	0.96	0.96	58ME(B,C)080–16
CSPH*6012A**	0.96	0.96	58ME(B,C)080–16
CAP**6021A**	0.96	0.96	58ME(B,C)100–20
CAP**6024A**	0.96	0.93	58ME(B,C)100–20
CNPH*6024A**	0.96	0.96	58ME(B,C)100–20
CNPH*6124A**	0.96	0.93	58ME(B,C)100–20
CNPV*6024A**	0.96	0.96	58ME(B,C)100–20
CNPV*6124A**	0.98	0.94	58ME(B,C)100–20
CSPH*6012A**	0.96	0.93	58ME(B,C)100–20
CAP**6021A**	0.96	0.93	58ME(B,C)120–20
CAP**6024A**	0.96	0.93	58ME(B,C)120–20
CNPH*6024A**	0.97	0.94	58ME(B,C)120–20
CNPV*6024A**	0.96	0.93	58ME(B,C)120–20
CNPV*6124A**	0.98	0.94	58ME(B,C)120–20
CSPH*6012A**	0.97	0.94	58ME(B,C)120–20
CNPV*6124A**	0.98	0.98	58MV(B,C)120–20
CSPH*6012A**	0.96	0.96	58MV(B,C)120–20
CAP**6021A**	0.96	0.96	58PH*090–16
CAP**6024A**	0.96	0.96	58PH*090–16
CNPH*6024A**	0.96	0.96	58PH*090–16
CNPH*6124A**	0.96	0.96	58PH*090–16
CNPV*6024A**	0.96	0.96	58PH*090–16
CNPV*6124A**	0.98	0.94	58PH*090–16
CSPH*6012A**	0.96	0.96	58PH*090–16
CAP**6021A**	0.96	0.93	58PH*110–20
CAP**6024A**	0.96	0.93	58PH*110–20
CNPH*6024A**	0.96	0.96	58PH*110–20
CNPH*6124A**	0.98	0.94	58PH*110–20
CNPV*6024A**	0.96	0.93	58PH*110–20
CNPV*6124A**	0.98	0.94	58PH*110–20
CSPH*6012A**	0.98	0.94	58PH*110–20
CAP**6021A**	0.96	0.96	58PH*135–20
CAP**6024A**	0.96	0.96	58PH*135–20
CNPH*6024A**	0.96	0.96	58PH*135–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPH*6124A**	0.96	0.93	58PH*135–20
CNPV*6024A**	0.96	0.96	58PH*135–20
CNPV*6124A**	0.98	0.94	58PH*135–20
CSPH*6012A**	0.97	0.94	58PH*135–20
CNPV*6124A**	0.98	0.98	58UVB120–20
CNPV*6124A**	0.98	0.98	58UVB120–20
CAP**6024A**	0.96	0.93	58VLR120–20
CNPH*6024A**	0.96	0.96	58VLR120–20
CNPV*6024A**	0.96	0.96	58VLR120–20
CNPV*6124A**	0.98	0.98	58VLR120–20
CSPH*6012A**	0.96	0.96	58VLR120–20
CNPV*6124A**	0.98	0.98	58VMR120–20
CAP**6024A**	0.96	0.95	59*N*A120V24**22
CAP**6025A**	0.96	0.95	59*N*A120V24**22
CNPH*6024A**	0.96	0.95	59*N*A120V24**22
CNPH*6124A**	0.96	0.95	59*N*A120V24**22
CNPV*6024A**	0.96	0.95	59*N*A120V24**22
CNPV*6124A**	0.97	0.94	59*N*A120V24**22
CSPH*6012A**	0.96	0.93	59*N*A120V24**22
CAP**6024A**	0.96	0.95	59*P5A120E24**22
CAP**6025A**	0.96	0.95	59*P5A120E24**22
CNPH*6024A**	0.96	0.95	59*P5A120E24**22
CNPH*6124A**	0.96	0.95	59*P5A120E24**22
CNPV*6024A**	0.96	0.95	59*P5A120E24**22
CNPV*6124A**	0.97	0.94	59*P5A120E24**22
CSPH*6012A**	0.97	0.94	59*P5A120E24**22

See notes on pg. 78

DETAILED COOLING CAPACITIES# (CONT.)

EVAPORATOR AIR		CONDENSER ENTERING AIR TEMPERATURES °F (°C)																	
		75 (23.9)			85 (29.4)			95 (35)			105 (40.6)			115 (46.1)			125 (51.7)		
CFM	EWB °F (°C)	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**	Capacity MBtuh†		Total System KW**
		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡		Total	Sens‡	
24ABC661A**30 Outdoor Section With CNPV*6124A** +TDR Indoor Section																			
1750	72 (22.2)	68.26	35.40	3.65	65.62	34.24	4.19	62.70	33.02	4.80	59.44	31.72	5.50	55.84	30.35	6.31	51.84	28.89	7.25
	67 (19.4)	62.16	43.65	3.59	59.80	42.52	4.12	57.18	41.32	4.72	54.27	40.05	5.42	51.03	38.69	6.24	47.43	37.23	7.18
	62 (16.7)	56.92	51.79	3.54	54.89	50.66	4.07	52.67	49.40	4.67	50.45	50.45	5.37	48.08	48.08	6.19	45.35	45.35	7.15
	57 (13.9)	55.79	55.79	3.53	54.23	54.23	4.06	52.43	52.43	4.67	50.37	50.37	5.37	48.01	48.01	6.19	45.29	45.29	7.15
2000	72 (22.2)	69.37	37.22	3.75	66.58	36.03	4.29	63.50	34.78	4.91	60.12	33.47	5.61	56.36	32.08	6.43	52.22	30.60	7.37
	67 (19.4)	63.22	46.57	3.69	60.75	45.42	4.22	58.00	44.20	4.83	54.96	42.90	5.54	51.60	41.51	6.35	47.88	40.00	7.30
	62 (16.7)	58.30	55.64	3.64	56.40	56.40	4.18	54.43	54.43	4.79	52.18	52.18	5.50	49.62	49.62	6.32	46.69	46.69	7.28
	57 (13.9)	58.04	58.04	3.64	56.32	56.32	4.17	54.35	54.35	4.79	52.12	52.12	5.50	49.56	49.56	6.32	46.64	46.64	7.28
2250	72 (22.2)	70.16	38.93	3.85	67.25	37.73	4.39	64.06	36.47	5.01	60.55	35.14	5.72	56.68	33.73	6.54	52.43	32.24	7.48
	67 (19.4)	64.02	49.36	3.79	61.43	48.19	4.32	58.58	46.94	4.94	55.46	45.61	5.65	52.01	44.17	6.47	48.25	42.59	7.41
	62 (16.7)	59.97	59.97	3.75	58.12	58.12	4.29	55.99	55.99	4.91	53.58	53.58	5.62	50.85	50.85	6.45	47.74	47.74	7.41
	57 (13.9)	59.89	59.89	3.75	58.04	58.04	4.29	55.93	55.93	4.91	53.52	53.52	5.62	50.79	50.79	6.45	47.69	47.69	7.40

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
*CNPV*6124A**	1.00	1.00	
CAP**6021A**	0.97	0.97	
CAP**6024A**	0.99	0.99	
CAP**6025A**	0.99	0.99	
CNPH*6024A**	0.99	0.99	
CNPH*6124A**	0.98	0.98	
CNPV*6024A**	0.99	0.99	
CSPH*6012A**	0.99	0.99	
FB4CNF060	0.97	0.97	
FE4ANB006	0.99	0.92	
FV4BNB006	0.99	0.90	
FV4CNB006	0.99	0.92	
FX4CN(B,F)060	1.01	0.95	
FX4DN(B,F)061	1.00	0.96	
FY4ANB060	0.99	1.02	
FY5BNB060	0.99	0.99	
CAP**6021A**	0.97	0.97	58CV(A,X)110–20
CAP**6024A**	0.97	0.94	58CV(A,X)110–20
CNPH*6024A**	0.97	0.94	58CV(A,X)110–20
CNPH*6124A**	0.97	0.94	58CV(A,X)110–20
CNPV*6024A**	0.97	0.97	58CV(A,X)110–20
CNPV*6124A**	0.98	0.94	58CV(A,X)110–20
CSPH*6012A**	0.98	0.94	58CV(A,X)110–20
CAP**6024A**	0.97	0.94	58CV(A,X)135–22
CAP**6025A**	0.97	0.94	58CV(A,X)135–22
CNPH*6024A**	0.97	0.94	58CV(A,X)135–22
CNPH*6124A**	0.98	0.94	58CV(A,X)135–22
CNPV*6024A**	0.97	0.94	58CV(A,X)135–22
CNPV*6124A**	0.99	0.92	58CV(A,X)135–22
CSPH*6012A**	0.98	0.94	58CV(A,X)135–22

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CAP**6024A**	0.97	0.94	58CV(A,X)155–22
CAP**6025A**	0.97	0.94	58CV(A,X)155–22
CNPH*6024A**	0.97	0.90	58CV(A,X)155–22
CNPH*6124A**	0.98	0.91	58CV(A,X)155–22
CNPV*6024A**	0.97	0.90	58CV(A,X)155–22
CNPV*6124A**	0.99	0.92	58CV(A,X)155–22
CSPH*6012A**	0.98	0.91	58CV(A,X)155–22
CNPH*6024A**	0.97	0.97	58ME(B,C)080–16
CSPH*6012A**	0.97	0.93	58ME(B,C)080–16
CAP**6021A**	0.97	0.93	58ME(B,C)100–20
CAP**6024A**	0.97	0.94	58ME(B,C)100–20
CNPH*6024A**	0.97	0.94	58ME(B,C)100–20
CNPH*6124A**	0.97	0.94	58ME(B,C)100–20
CNPV*6024A**	0.97	0.94	58ME(B,C)100–20
CNPV*6124A**	0.98	0.94	58ME(B,C)100–20
CSPH*6012A**	0.98	0.94	58ME(B,C)100–20
CAP**6024A**	0.97	0.94	58ME(B,C)120–20
CAP**6025A**	0.97	0.94	58ME(B,C)120–20
CNPH*6024A**	0.97	0.94	58ME(B,C)120–20
CNPH*6124A**	0.97	0.94	58ME(B,C)120–20
CNPV*6024A**	0.97	0.94	58ME(B,C)120–20
CNPV*6124A**	0.98	0.91	58ME(B,C)120–20
CSPH*6012A**	0.98	0.91	58ME(B,C)120–20
CNPV*6124A**	0.98	0.94	58MV(B,C)120–20
CSPH*6012A**	0.97	0.94	58MV(B,C)120–20
CAP**6021A**	0.97	0.94	58PH*110–20
CAP**6024A**	0.97	0.94	58PH*110–20
CNPH*6024A**	0.97	0.94	58PH*110–20
CNPH*6124A**	0.97	0.94	58PH*110–20

COOLING INDOOR MODEL	CAPACITY	POWER	FURNACE MODEL
CNPV*6024A**	0.97	0.94	58PH*110–20
CNPV*6124A**	0.99	0.92	58PH*110–20
CSPH*6012A**	0.98	0.94	58PH*110–20
CAP**6024A**	0.97	0.94	58PH*135–20
CAP**6025A**	0.97	0.94	58PH*135–20
CNPH*6024A**	0.97	0.94	58PH*135–20
CNPH*6124A**	0.97	0.94	58PH*135–20
CNPV*6024A**	0.97	0.94	58PH*135–20
CNPV*6124A**	0.98	0.94	58PH*135–20
CNPV*6124A**	0.98	0.94	58PH*135–20
CSPH*6012A**	0.98	0.94	58PH*135–20
CAP**6024A**	0.97	0.97	58VLR120–20
CNPH*6024A**	0.97	0.97	58VLR120–20
CNPV*6024A**	0.97	0.97	58VLR120–20
CNPV*6124A**	0.99	0.95	58VLR120–20
CSPH*6012A**	0.98	0.94	58VLR120–20
CAP**6024A**	0.97	0.97	59*N*A120V24**22
CAP**6025A**	0.97	0.97	59*N*A120V24**22
CNPH*6024A**	0.97	0.97	59*N*A120V24**22
CNPH*6124A**	0.98	0.98	59*N*A120V24**22
CNPV*6024A**	0.97	0.97	59*N*A120V24**22
CNPV*6124A**	0.99	0.95	59*N*A120V24**22
CSPH*6012A**	0.98	0.94	59*N*A120V24**22
CAP**6024A**	0.97	0.97	59*P5A120E24**22
CAP**6025A**	0.97	0.97	59*P5A120E24**22
CNPH*6024A**	0.97	0.97	59*P5A120E24**22
CNPH*6124A**	0.97	0.97	59*P5A120E24**22
CNPV*6024A**	0.97	0.97	59*P5A120E24**22
CNPV*6124A**	0.99	0.95	59*P5A120E24**22
CSPH*6012A**	0.98	0.98	59*P5A120E24**22

* Tested combination.

† Total and sensible capacities are net capacities. Blower motor heat has been subtracted.

‡ Sensible capacities shown are based on 80°F (27°C) entering air at the indoor coil. For sensible capacities at other than 80°F (27°C), deduct 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air for each degree below 80°F (27°C), or add 835 Btuh (245 kW) per 1000 CFM (480 L/S) of indoor coil air per degree above 80°F (27°C).

Detailed cooling capacities are based on indoor and outdoor unit at the same elevation per AHRI standard 210/240–2008. If additional tubing length and/or indoor unit is located above outdoor unit, a slight variation in capacity may occur.

** System kw is total of indoor and outdoor unit kilowatts.

†† At TVA rating indoor condition (75°F edb/63°F ewb). All other indoor air temperatures are at 80°F edb.

NOTE: When the required data falls between the published data, interpolation may be performed. Extrapolation is not an acceptable practice.

EWB — Entering Wet Bulb

CONDENSER ONLY RATINGS

SST °F (°C)		CONDENSER ENTERING AIR TEMPERATURES °F (°C)							
		55 (12.78)	65 (18.33)	75 (23.89)	85 (29.44)	95 (35.0)	105 (40.56)	115 (46.11)	125 (51.67)
24ABC618A31**									
30 (–1.11)	TCG	15.70	14.90	14.10	13.20	12.30	11.30	10.20	9.20
	SDT	66.60	76.20	85.80	95.30	104.80	114.30	123.70	133.10
	KW	0.75	0.87	0.99	1.12	1.26	1.41	1.60	1.81
35 (1.67)	TCG	17.50	16.60	15.70	14.70	13.70	12.60	11.50	10.30
	SDT	67.80	77.30	86.80	96.30	105.70	115.10	124.40	133.80
	KW	0.75	0.87	0.99	1.12	1.26	1.42	1.60	1.81
40 (4.44)	TCG	19.40	18.40	17.40	16.30	15.20	14.00	12.80	11.50
	SDT	69.00	78.50	87.90	97.30	106.60	115.90	125.20	134.50
	KW	0.74	0.87	0.99	1.12	1.26	1.42	1.60	1.81
45 (7.22)	TCG	21.50	20.30	19.20	18.00	16.70	15.50	14.10	12.80
	SDT	70.40	79.70	89.00	98.30	107.60	116.90	126.10	135.30
	KW	0.74	0.86	0.99	1.13	1.27	1.43	1.61	1.82
50 (10.0)	TCG	23.60	22.40	21.10	19.70	18.40	17.00	15.60	14.10
	SDT	71.60	80.90	90.10	99.40	108.60	117.80	127.00	136.20
	KW	0.73	0.86	1.00	1.13	1.28	1.44	1.62	1.82
55 (12.78)	TCG	25.90	24.50	23.10	21.60	20.10	18.60	17.10	15.50
	SDT	73.00	82.10	91.30	100.50	109.70	118.80	128.00	137.10
	KW	0.73	0.86	1.00	1.14	1.29	1.45	1.63	1.84
24ABC624A30**									
30 (–1.11)	TCG	20.30	19.40	18.30	17.20	16.10	14.80	13.60	12.20
	SDT	66.10	75.80	85.30	94.90	104.40	114.00	123.40	132.80
	KW	1.00	1.15	1.30	1.47	1.65	1.85	2.09	2.36
35 (1.67)	TCG	22.60	21.40	20.30	19.10	17.80	16.50	15.10	13.60
	SDT	67.20	76.80	86.30	95.80	105.30	114.70	124.10	133.50
	KW	0.99	1.14	1.30	1.47	1.65	1.86	2.09	2.36
40 (4.44)	TCG	24.90	23.70	22.40	21.00	19.60	18.20	16.70	15.10
	SDT	68.40	77.90	87.30	96.70	106.10	115.50	124.80	134.10
	KW	0.98	1.14	1.30	1.47	1.66	1.86	2.09	2.36
45 (7.22)	TCG	27.40	26.00	24.60	23.10	21.60	20.10	18.40	16.70
	SDT	69.60	79.00	88.30	97.70	107.00	116.30	125.60	134.90
	KW	0.97	1.14	1.30	1.48	1.66	1.87	2.10	2.37
50 (10.0)	TCG	30.10	28.60	27.00	25.40	23.70	22.00	20.20	18.40
	SDT	70.80	80.10	89.40	98.70	107.90	117.20	126.40	135.60
	KW	0.96	1.13	1.30	1.48	1.67	1.88	2.11	2.37
55 (12.78)	TCG	33.00	31.30	29.50	27.70	25.90	24.10	22.10	20.20
	SDT	72.10	81.30	90.50	99.70	108.90	118.10	127.30	136.40
	KW	0.95	1.13	1.31	1.49	1.68	1.89	2.12	2.39
24ABC630A30**									
30 (–1.11)	TCG	24.90	23.50	22.20	20.80	19.40	17.90	16.20	14.40
	SDT	68.10	77.50	87.00	96.40	105.80	115.10	124.40	133.60
	KW	1.27	1.43	1.60	1.78	1.99	2.23	2.50	2.81
35 (1.67)	TCG	27.50	26.00	24.50	23.10	21.50	19.90	18.10	16.20
	SDT	69.40	78.70	88.10	97.40	106.70	116.00	125.30	134.40
	KW	1.28	1.44	1.61	1.79	2.00	2.24	2.51	2.82
40 (4.44)	TCG	30.30	28.60	27.10	25.50	23.80	22.00	20.10	18.10
	SDT	70.70	79.90	89.20	98.50	107.70	117.00	126.20	135.30
	KW	1.29	1.44	1.61	1.80	2.01	2.25	2.52	2.83
45 (7.22)	TCG	33.30	31.50	29.80	28.00	26.20	24.30	22.30	20.10
	SDT	72.00	81.20	90.40	99.60	108.80	118.00	127.20	136.30
	KW	1.29	1.44	1.61	1.80	2.01	2.26	2.53	2.85
50 (10.0)	TCG	36.50	34.50	32.60	30.70	28.80	26.70	24.50	22.20
	SDT	73.50	82.50	91.70	100.80	110.00	119.20	128.20	137.20
	KW	1.29	1.44	1.61	1.80	2.02	2.26	2.54	2.86
55 (12.78)	TCG	39.90	37.80	35.70	33.60	31.50	29.30	26.90	24.40
	SDT	75.00	84.00	93.00	102.10	111.20	120.30	129.30	138.20
	KW	1.29	1.44	1.61	1.80	2.02	2.27	2.54	2.86
24ABC636A30**									
30 (–1.11)	TCG	31.50	29.90	28.30	26.60	24.80	22.90	21.00	18.90
	SDT	68.90	78.20	87.50	96.80	106.20	115.50	124.90	134.20
	KW	1.50	1.73	1.96	2.21	2.50	2.82	3.21	3.66
35 (1.67)	TCG	34.80	33.00	31.20	29.40	27.40	25.40	23.30	21.10
	SDT	70.10	79.30	88.60	97.90	107.20	116.50	125.80	135.00
	KW	1.50	1.73	1.97	2.22	2.51	2.83	3.21	3.66
40 (4.44)	TCG	38.30	36.40	34.40	32.40	30.30	28.10	25.80	23.40
	SDT	71.40	80.60	89.80	99.00	108.20	117.40	126.70	135.90
	KW	1.51	1.74	1.98	2.24	2.52	2.85	3.22	3.66
45 (7.22)	TCG	42.10	40.00	37.80	35.60	33.30	30.90	28.40	25.80
	SDT	72.80	81.90	91.00	100.20	109.40	118.50	127.70	136.80
	KW	1.52	1.75	1.99	2.25	2.54	2.86	3.24	3.67
50 (10.0)	TCG	46.20	43.90	41.50	39.00	36.50	33.90	31.20	28.40
	SDT	74.40	83.30	92.40	101.50	110.50	119.60	128.70	137.70
	KW	1.53	1.77	2.01	2.27	2.56	2.88	3.25	3.68
55 (12.78)	TCG	50.50	47.90	45.30	42.70	39.90	37.10	34.20	31.10
	SDT	76.00	84.90	93.80	102.80	111.80	120.80	129.80	138.70
	KW	1.55	1.79	2.04	2.30	2.58	2.91	3.28	3.70

See notes on page 81

CONDENSER ONLY RATINGS CONTINUED

SST °F (°C)		CONDENSER ENTERING AIR TEMPERATURES °F (°C)							
		55 (12.78)	65 (18.33)	75 (23.89)	85 (29.44)	95 (35.0)	105 (40.56)	115 (46.11)	125 (51.67)
24ABC642A30**									
30 (–1.11)	TCG	37.90	36.20	34.30	32.30	30.10	27.90	25.50	23.00
	SDT	69.80	79.20	88.70	98.10	107.40	116.70	125.90	135.10
	KW	1.83	2.03	2.26	2.54	2.86	3.22	3.63	4.09
35 (1.67)	TCG	41.90	40.00	37.90	35.70	33.30	30.80	28.30	25.60
	SDT	71.20	80.60	89.90	99.20	108.40	117.70	126.80	136.00
	KW	1.84	2.04	2.28	2.56	2.88	3.24	3.65	4.10
40 (4.44)	TCG	46.10	44.00	41.70	39.20	36.70	34.00	31.20	28.30
	SDT	72.70	81.90	91.20	100.40	109.60	118.70	127.80	136.90
	KW	1.85	2.05	2.30	2.58	2.90	3.26	3.67	4.13
45 (7.22)	TCG	50.70	48.30	45.80	43.10	40.20	37.30	34.30	31.10
	SDT	74.20	83.30	92.50	101.60	110.80	119.80	128.90	137.90
	KW	1.86	2.07	2.32	2.60	2.92	3.29	3.70	4.15
50 (10.0)	TCG	55.50	52.90	50.10	47.10	44.00	40.80	37.50	34.10
	SDT	75.80	84.80	93.90	103.00	112.00	121.00	130.00	138.90
	KW	1.87	2.09	2.34	2.63	2.95	3.32	3.73	4.19
55 (12.78)	TCG	60.70	57.70	54.60	51.30	47.90	44.40	40.80	37.10
	SDT	77.40	86.40	95.40	104.40	113.40	122.30	131.20	140.00
	KW	1.89	2.11	2.36	2.66	2.99	3.36	3.77	4.22
24ABC648A31**									
30 (–1.11)	TCG	40.80	38.60	36.50	34.30	32.10	29.70	27.20	24.60
	SDT	67.20	76.60	86.10	95.50	104.90	114.30	123.60	132.90
	KW	1.98	2.28	2.56	2.85	3.16	3.50	3.88	4.33
35 (1.67)	TCG	45.10	42.70	40.30	37.90	35.40	32.80	30.10	27.30
	SDT	68.50	77.80	87.10	96.50	105.80	115.10	124.40	133.60
	KW	1.91	2.24	2.55	2.86	3.17	3.52	3.91	4.35
40 (4.44)	TCG	49.90	47.10	44.50	41.80	39.00	36.20	33.20	30.10
	SDT	69.80	79.00	88.30	97.50	106.80	116.00	125.20	134.40
	KW	1.80	2.16	2.50	2.84	3.17	3.53	3.92	4.36
45 (7.22)	TCG	55.00	52.00	49.00	46.00	42.90	39.80	36.50	33.10
	SDT	71.20	80.30	89.50	98.60	107.80	117.00	126.10	135.20
	KW	1.65	2.05	2.43	2.79	3.15	3.53	3.94	4.38
50 (10.0)	TCG	60.70	57.30	53.90	50.50	47.10	43.60	40.00	36.30
	SDT	72.60	81.70	90.70	99.80	108.90	118.00	127.10	136.10
	KW	1.46	1.90	2.32	2.72	3.11	3.51	3.94	4.39
55 (12.78)	TCG	66.80	63.00	59.20	55.40	51.60	47.70	43.70	39.60
	SDT	74.20	83.10	92.10	101.10	110.10	119.10	128.10	137.00
	KW	1.22	1.72	2.17	2.61	3.04	3.47	3.92	4.39
24ABC649A30**									
30 (–1.11)	TCG	45.00	42.40	39.90	37.40	34.90	32.30	29.50	26.40
	SDT	70.30	79.50	88.90	98.20	107.60	116.90	126.20	135.40
	KW	2.04	2.41	2.75	3.08	3.44	3.84	4.32	4.89
35 (1.67)	TCG	49.80	46.80	44.00	41.20	38.50	35.60	32.60	29.30
	SDT	71.70	80.90	90.10	99.40	108.70	118.00	127.20	136.30
	KW	1.99	2.39	2.75	3.10	3.47	3.87	4.34	4.90
40 (4.44)	TCG	54.90	51.50	48.40	45.30	42.20	39.10	35.80	32.30
	SDT	73.20	82.40	91.50	100.70	109.90	119.00	128.20	137.20
	KW	1.93	2.36	2.75	3.12	3.50	3.91	4.38	4.92
45 (7.22)	TCG	60.40	56.60	53.00	49.60	46.20	42.80	39.30	35.50
	SDT	74.80	83.90	92.90	102.00	111.10	120.20	129.20	138.10
	KW	1.86	2.33	2.75	3.14	3.53	3.95	4.41	4.94
50 (10.0)	TCG	66.20	62.00	58.00	54.20	50.50	46.70	42.90	38.70
	SDT	76.40	85.50	94.50	103.40	112.40	121.40	130.30	139.10
	KW	1.78	2.28	2.73	3.15	3.56	3.99	4.45	4.98
55 (12.78)	TCG	72.40	67.70	63.20	59.10	55.00	50.90	46.70	42.10
	SDT	78.20	87.10	96.10	104.90	113.80	122.60	131.40	140.10
	KW	1.68	2.23	2.71	3.16	3.59	4.02	4.49	5.01
24ABC660A30**									
30 (–1.11)	TCG	49.90	47.50	45.10	42.40	39.60	36.70	33.50	30.20
	SDT	70.90	80.40	89.80	99.20	108.50	117.80	127.00	136.30
	KW	2.31	2.60	2.90	3.24	3.61	4.05	4.56	5.17
35 (1.67)	TCG	55.30	52.60	49.80	46.90	43.90	40.70	37.30	33.80
	SDT	72.50	81.80	91.20	100.50	109.70	118.90	128.10	137.30
	KW	2.31	2.61	2.93	3.27	3.65	4.08	4.59	5.19
40 (4.44)	TCG	61.00	58.00	54.90	51.70	48.40	45.00	41.40	37.60
	SDT	74.10	83.40	92.60	101.80	111.00	120.10	129.20	138.30
	KW	2.31	2.63	2.95	3.29	3.68	4.12	4.63	5.22
45 (7.22)	TCG	67.20	63.80	60.30	56.90	53.30	49.60	45.70	41.70
	SDT	75.80	84.90	94.10	103.20	112.30	121.40	130.40	139.40
	KW	2.31	2.64	2.97	3.32	3.71	4.15	4.66	5.25
50 (10.0)	TCG	73.70	70.00	66.20	62.40	58.50	54.50	50.40	46.10
	SDT	77.60	86.60	95.70	104.70	113.70	122.70	131.60	140.50
	KW	2.31	2.65	2.99	3.35	3.75	4.19	4.70	5.28
55 (12.78)	TCG	80.80	76.60	72.40	68.30	64.00	59.80	55.30	50.70
	SDT	79.50	88.40	97.30	106.20	115.20	124.00	132.90	141.60
	KW	2.31	2.66	3.02	3.39	3.79	4.24	4.74	5.32

See notes on page 81

CONDENSER ONLY RATINGS CONTINUED

SST °F (°C)		CONDENSER ENTERING AIR TEMPERATURES °F (°C)							
		55 (12.78)	65 (18.33)	75 (23.89)	85 (29.44)	95 (35.0)	105 (40.56)	115 (46.11)	125 (51.67)
24ABC661A**30									
30 (–1.11)	TCG	47.40	46.30	45.00	43.40	41.50	39.30	36.80	33.80
	SDT	70.70	80.00	89.20	98.50	107.70	116.90	126.00	135.10
	KW	1.95	2.35	2.79	3.30	3.90	4.61	5.45	6.46
35 (1.67)	TCG	52.30	51.10	49.60	47.90	45.90	43.40	40.70	37.40
	SDT	72.20	81.40	90.60	99.70	108.90	118.00	127.00	136.00
	KW	1.98	2.38	2.82	3.34	3.94	4.65	5.49	6.49
40 (4.44)	TCG	57.60	56.20	54.60	52.70	50.40	47.80	44.80	41.20
	SDT	73.90	82.90	92.00	101.00	110.10	119.10	128.10	137.00
	KW	2.01	2.41	2.86	3.38	3.99	4.70	5.54	6.53
45 (7.22)	TCG	63.20	61.70	59.90	57.80	55.30	52.40	49.00	45.20
	SDT	75.60	84.50	93.50	102.50	111.40	120.40	129.20	138.10
	KW	2.05	2.45	2.91	3.43	4.04	4.75	5.59	6.58
50 (10.0)	TCG	69.20	67.50	65.50	63.20	60.40	57.20	53.50	49.40
	SDT	77.40	86.20	95.10	104.00	112.80	121.70	130.40	139.10
	KW	2.09	2.50	2.96	3.49	4.10	4.82	5.65	6.64
55 (12.78)	TCG	75.60	73.70	71.40	68.80	65.70	62.20	58.20	53.60
	SDT	79.30	88.00	96.80	105.60	114.30	123.00	131.70	140.30
	KW	2.14	2.56	3.03	3.56	4.17	4.89	5.72	6.70

* AHRI listing applies only to systems shown in Combination Ratings table.

KW – Outdoor Unit Kilowatts Only.

SDT – Saturated Temperature Leaving Compressor (°F)

SST – Saturated Temperature Entering Compressor (°F/°C)

TCG – Gross Cooling Capacity (1000 Btuh)

GUIDE SPECIFICATIONS
GENERAL

System Description

Outdoor-mounted, air-cooled, split-system air conditioner unit suitable for ground or rooftop installation. Unit consists of a hermetic compressor, an air-cooled coil, propeller-type condenser fan, and a control box. Unit will discharge supply air upward as shown on contract drawings. Unit will be used in a refrigeration circuit to match up to a packaged fan coil or coil unit.

Quality Assurance

- Unit will be rated in accordance with the latest edition of AHRI Standard 210.
- Unit will be certified for capacity and efficiency, and listed in the latest AHRI directory.
- Unit construction will comply with latest edition of ANSI/ ASHRAE and with NEC.
- Unit will be constructed in accordance with UL standards and will carry the UL label of approval. Unit will have c-UL-us approval.
- Unit cabinet will be capable of withstanding Federal Test Method Standard No. 141 (Method 6061) 500-hr salt spray test.
- Air-cooled condenser coils will be leak tested at 150 psig and pressure tested at 450 psig.
- Unit constructed in ISO9001 approved facility.

Delivery, Storage, and Handling

- Unit will be shipped as single package only and is stored and handled per unit manufacturer's recommendations.

Warranty (for inclusion by specifying engineer)

- U.S. and Canada only.

PRODUCTS

Equipment

Factory assembled, single piece, air-cooled air conditioner unit. Contained within the unit enclosure is all factory wiring, piping, controls, compressor, refrigerant charge Puron® (R-410A), and special features required prior to field start-up.

Unit Cabinet

- Unit cabinet will be constructed of galvanized steel, bonderized, and coated with a powder coat paint.

Fans

- Condenser fan will be direct-drive propeller type, discharging air upward.
- Condenser fan motors will be totally enclosed, 1-phase type with class B insulation and permanently lubricated bearings. Shafts will be corrosion resistant.
- Fan blades will be statically and dynamically balanced.
- Condenser fan openings will be equipped with coated steel wire safety guards.

Compressor

- Compressor will be hermetically sealed.
- Compressor will be mounted on rubber vibration isolators.

Condenser Coil

- Condenser coil will be air cooled.
- Coil will be constructed of aluminum fins mechanically bonded to copper tubes which are then cleaned, dehydrated, and sealed.

Refrigeration Components

- Refrigeration circuit components will include liquid-line shutoff valve with sweat connections, vapor-line shutoff valve with sweat connections, system charge of Puron® (R-410A) refrigerant, and compressor oil.
- Unit will be equipped with high-pressure switch, low pressure switch and filter drier for Puron refrigerant.

Operating Characteristics

- The capacity of the unit will meet or exceed _____ Btuh at a suction temperature of _____ °F/°C. The power consumption at full load will not exceed _____ kW.
- Combination of the unit and the evaporator or fan coil unit will have a total net cooling capacity of _____ Btuh or greater at conditions of _____ CFM entering air temperature at the evaporator at _____ °F/°C wet bulb and _____ °F/°C dry bulb, and air entering the unit at _____ °F/°C.
- The system will have a SEER of _____ Btuh/watt or greater at DOE conditions.

Electrical Requirements

- Nominal unit electrical characteristics will be _____ v, single phase, 60 hz. The unit will be capable of satisfactory operation within voltage limits of _____ v to _____ v.
- Unit electrical power will be single point connection.
- Control circuit will be 24v.

Special Features

- Refer to section of this literature identifying accessories and descriptions for specific features and available enhancements.

SYSTEM DESIGN SUMMARY

1. Intended for outdoor installation with free air inlet and outlet. Outdoor fan external static pressure available is less than 0.01-in. wc.
2. Minimum outdoor operating air temperature for cooling mode without low-ambient operation accessory is 55°F (12.8°C).
3. Maximum outdoor operating air temperature is 125°F (51.7°C).
4. For reliable operation, unit should be level in all horizontal planes.
5. For interconnecting refrigerant tube lengths greater than 80 ft (23.4 m) and/or 35 ft (10.7 m) vertical differential, consult Residential Piping and Longline Guideline and Service Manual available from equipment distributor.
6. If any refrigerant tubing is buried, provide a 6 in. (152.4 mm) vertical rise to the valve connections at the unit. Refrigerant tubing lengths up to 36 in. (914.4 mm) may be buried without further consideration. Do not bury refrigerant lines longer than 36 in. (914.4 mm).
7. Use only copper wire for electric connection at unit. Aluminum and clad aluminum are not acceptable for the type of connector provided.
8. Do not apply capillary tube indoor coils to these units.
9. Factory-supplied filter drier must be installed.

 Printed in U.S.A. Edition Date: 08/11 **Catalog No: 24ABC6–3PD**

Replaces: 24ABC6–2PD

APPENDIX 10.2:

OPERATIONAL NOISE LEVEL CALCULATIONS

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14501 - 4665 Lampson Ave

CadnaA Noise Prediction Model: 14501-03_Operatrion.cna
Date: 16.05.23
Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates			
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)	
R1		R1	45.0	40.9	47.9	0.0	0.0	0.0		x	Total	5.00	r	6015314.98	2233283.64	5.00	
R2		R2	36.5	32.4	39.4	0.0	0.0	0.0		x	Total	5.00	r	6016385.39	2232771.38	5.00	
R3		R3	48.5	43.4	50.7	0.0	0.0	0.0		x	Total	5.00	r	6014862.95	2232536.23	5.00	
R4		R4	19.2	15.9	22.7	0.0	0.0	0.0		x	Total	5.00	r	6009375.12	2233274.30	5.00	

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
Outdoor1		Outdoor1	91.5	91.5	91.5	Lw	91.5		900.00	0.00	0.00	5.00	r	6014515.46	2232859.89	5.00
Outdoor2		Outdoor2	91.5	91.5	91.5	Lw	91.5		900.00	0.00	0.00	5.00	r	6014905.88	2232886.67	5.00
Outdoor3		Outdoor3	91.5	91.5	91.5	Lw	91.5		900.00	0.00	0.00	5.00	r	6014974.79	2232885.96	5.00
Outdoor4		Outdoor4	91.5	91.5	91.5	Lw	91.5		900.00	0.00	0.00	5.00	r	6014968.40	2232826.34	5.00
Outdoor5		Outdoor5	91.5	91.5	91.5	Lw	91.5		900.00	0.00	0.00	5.00	r	6014516.32	2232922.72	5.00
Outdoor6		Outdoor6	91.5	91.5	91.5	Lw	91.5		900.00	0.00	0.00	5.00	r	6014903.31	2232826.34	5.00
PARK1		PARK1	87.8	87.8	87.8	Lw	87.8		900.00	0.00	540.00	5.00	r	6014551.64	2232893.53	5.00
PARK2		PARK2	87.8	87.8	87.8	Lw	87.8		900.00	0.00	540.00	5.00	r	6014543.80	2232698.46	5.00
PARK3		PARK3	87.8	87.8	87.8	Lw	87.8		900.00	0.00	540.00	5.00	r	6015301.33	2232850.26	5.00
PARK4		PARK4	87.8	87.8	87.8	Lw	87.8		900.00	0.00	540.00	5.00	r	6014933.04	2232920.66	5.00
PARK5		PARK5	87.8	87.8	87.8	Lw	87.8		900.00	0.00	540.00	5.00	r	6015342.10	2232850.08	5.00
PARK6		PARK6	87.8	87.8	87.8	Lw	87.8		900.00	0.00	540.00	5.00	r	6014592.61	2233079.31	5.00
PARK7		PARK7	87.8	87.8	87.8	Lw	87.8		900.00	0.00	540.00	5.00	r	6014590.09	2232874.97	5.00
PARK8		PARK8	87.8	87.8	87.8	Lw	87.8		900.00	0.00	540.00	5.00	r	6014481.15	2233019.85	5.00
PARK9		PARK9	87.8	87.8	87.8	Lw	87.8		900.00	0.00	540.00	5.00	r	6014584.35	2232692.26	5.00
TRASH1		TRASH1	89.0	89.0	89.0	Lw	89.0		150.00	0.00	90.00	8.00	r	6014589.16	2232994.47	8.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
TRASH2		TRASH2	89.0	89.0	89.0	Lw	89.0		150.00	0.00	90.00	8.00	r	6014589.16	2232994.47	8.00
GMAC001		AC001	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014991.90	2232631.19	3.00
GMAC002		AC002	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015026.19	2232629.67	3.00
GMAC003		AC003	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015130.79	2232626.41	3.00
GMAC004		AC004	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015165.28	2232626.48	3.00
GMAC005		AC005	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014943.37	2232704.41	3.00
GMAC006		AC006	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014944.89	2232736.31	3.00
GMAC007		AC007	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015083.70	2232732.75	3.00
GMAC008		AC008	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015077.84	2232731.88	3.00
GMAC009		AC009	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015076.32	2232699.76	3.00
GMAC010		AC010	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015083.48	2232699.55	3.00
GMAC011		AC011	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014881.44	2232736.87	3.00
GMAC012		AC012	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014687.26	2232802.85	3.00
GMAC013		AC013	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014690.47	2232637.05	3.00
GMAC014		AC014	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014879.92	2232704.32	3.00
GMAC015		AC015	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014747.98	2232707.36	3.00
GMAC016		AC016	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014741.25	2232707.14	3.00
GMAC017		AC017	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014743.20	2232739.91	3.00
GMAC018		AC018	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014748.63	2232739.69	3.00
GMAC019		AC019	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014608.31	2232710.22	3.00
GMAC020		AC020	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014608.74	2232742.99	3.00
GMAC021		AC021	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014652.21	2232803.06	3.00
GMAC022		AC022	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014616.18	2232852.50	3.00
GMAC023		AC023	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014727.12	2232830.54	3.00
GMAC024		AC024	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014831.20	2232917.82	3.00
GMAC025		AC025	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014867.70	2232827.32	3.00
GMAC026		AC026	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015002.34	2232804.67	3.00
GMAC027		AC027	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015003.12	2232837.57	3.00
GMAC028		AC028	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014799.30	2232804.49	3.00
GMAC029		AC029	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014798.95	2232801.37	3.00
GMAC030		AC030	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015088.54	2232907.10	3.00
GMAC031		AC031	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015054.16	2232907.36	3.00
GMAC032		AC032	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014869.53	2232887.57	3.00
GMAC033		AC033	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014873.87	2232866.43	3.00
GMAC034		AC034	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014732.46	2232869.69	3.00
GMAC035		AC035	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014690.27	2232920.38	3.00
GMAC036		AC036	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014660.93	2232933.66	3.00
GMAC037		AC037	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014616.23	2232891.91	3.00
GMAC038		AC038	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014688.14	2232807.62	3.00
GMAC039		AC039	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014655.94	2232975.46	3.00
GMAC040		AC040	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014622.26	2233003.37	3.00
GMAC041		AC041	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014619.31	2233025.37	3.00
GMAC042		AC042	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014620.83	2233064.65	3.00
GMAC043		AC043	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014624.73	2233085.48	3.00
GMAC044		AC044	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014739.49	2232979.84	3.00
GMAC045		AC045	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014739.06	2232983.97	3.00
GMAC046		AC046	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014748.39	2232983.97	3.00
GMAC047		AC047	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014749.69	2232980.28	3.00
GMAC048		AC048	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014759.67	2233000.46	3.00
GMAC049		AC049	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014756.42	2233023.03	3.00
GMAC050		AC050	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014733.41	2233022.16	3.00
GMAC051		AC051	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014728.86	2233000.46	3.00
GMAC052		AC052	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014734.93	2233061.01	3.00
GMAC053		AC053	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014758.15	2233062.09	3.00
GMAC054		AC054	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014762.71	2233083.14	3.00
GMAC055		AC055	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014731.89	2233082.92	3.00
GMAC056		AC056	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014700.64	2233110.48	3.00
GMAC057		AC057	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014659.41	2233112.22	3.00
GMAC058		AC058	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014793.31	2233108.53	3.00
GMAC059		AC059	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014832.16	2233055.36	3.00
GMAC060		AC060	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014861.24	2233093.56	3.00
GMAC061		AC061	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014899.65	2233093.12	3.00
GMAC062		AC062	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014925.91	2233084.01	3.00
GMAC063		AC063	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014835.63	2233055.80	3.00
GMAC064		AC064	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014935.45	2232989.39	3.00
GMAC065		AC065	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014925.04	2232989.39	3.00
GMAC066		AC066	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014900.08	2233000.46	3.00
GMAC067		AC067	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014870.78	2233001.33	3.00
GMAC068		AC068	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014835.84	2233022.38	3.00
GMAC069		AC069	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014832.37	2233022.81	3.00
GMAC070		AC070	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014898.56	2232982.23	3.00
GMAC071		AC071	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014859.93	2232983.53	3.00
GMAC072		AC072	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015097.91	2232975.68	3.00
GMAC073		AC073	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014962.45	2232981.14	3.00
GMAC074		AC074	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015088.10	2232976.67	3.00
GMAC075		AC075	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015087.97	2232972.64	3.00
GMAC076		AC076	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015078.86	2232992.56	3.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
GMAC077		AC077	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015004.03	2233018.69	3.00
GMAC078		AC078	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015007.50	2233018.69	3.00
GMAC079		AC079	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015082.50	2233015.17	3.00
GMAC080		AC080	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015083.59	2233053.58	3.00
GMAC081		AC081	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015008.37	2233051.24	3.00
GMAC082		AC082	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015080.51	2233075.46	3.00
GMAC083		AC083	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015004.90	2233051.02	3.00
GMAC084		AC084	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014937.62	2233083.57	3.00
GMAC085		AC085	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014964.53	2233090.74	3.00
GMAC086		AC086	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015049.00	2233103.06	3.00
GMAC087		AC087	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015105.29	2233053.58	3.00
GMAC088		AC088	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015109.46	2233074.81	3.00
GMAC089		AC089	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015104.51	2233013.87	3.00
GMAC090		AC090	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015107.37	2232992.52	3.00
GMAC091		AC091	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015184.85	2233100.46	3.00
GMAC092		AC092	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015219.09	2233051.11	3.00
GMAC093		AC093	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015097.87	2232972.72	3.00
GMAC094		AC094	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015218.70	2233011.53	3.00
GMAC095		AC095	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015214.79	2232990.17	3.00
GMAC096		AC096	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015142.14	2233101.37	3.00
GMAC097		AC097	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015216.10	2233072.72	3.00
GMAC098		AC098	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015277.81	2233098.51	3.00
GMAC099		AC099	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015224.17	2232972.98	3.00
GMAC100		AC100	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015223.91	2232969.08	3.00
GMAC101		AC101	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015233.80	2232969.60	3.00
GMAC102		AC102	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015233.54	2232972.72	3.00
GMAC103		AC103	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015240.31	2233011.53	3.00
GMAC104		AC104	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015243.44	2232989.91	3.00
GMAC105		AC105	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015321.04	2233097.46	3.00
GMAC106		AC106	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015352.55	2233069.08	3.00
GMAC107		AC107	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015382.50	2233069.43	3.00
GMAC108		AC108	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015413.41	2233095.86	3.00
GMAC109		AC109	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015378.08	2233048.07	3.00
GMAC110		AC110	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015355.42	2233047.46	3.00
GMAC111		AC111	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015354.12	2233008.14	3.00
GMAC112		AC112	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015376.77	2233008.75	3.00
GMAC113		AC113	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015349.69	2232986.53	3.00
GMAC114		AC114	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015380.16	2232987.65	3.00
GMAC115		AC115	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015358.28	2232969.60	3.00
GMAC116		AC116	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015358.02	2232965.43	3.00
GMAC117		AC117	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015369.74	2232971.25	3.00
GMAC118		AC118	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015369.48	2232967.08	3.00
GMAC119		AC119	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015496.48	2232967.39	3.00
GMAC120		AC120	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015486.19	2232984.27	3.00
GMAC121		AC121	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015491.92	2233005.62	3.00
GMAC122		AC122	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015492.18	2233044.43	3.00
GMAC123		AC123	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015489.32	2233066.56	3.00
GMAC124		AC124	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015457.29	2233094.16	3.00
GMAC125		AC125	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014827.97	2232803.56	3.00
GMAC126		AC126	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014827.97	2232799.00	3.00
GMAC127		AC127	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015244.85	2233071.83	3.00
GMAC128		AC128	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015241.04	2233050.65	3.00
GMAC129		AC129	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015192.86	2232905.21	3.00
GMAC130		AC130	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015226.76	2232904.25	3.00
GMAC131		AC131	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015274.11	2232831.81	3.00
GMAC132		AC132	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014831.40	2232913.97	3.00
GMAC133		AC133	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015379.36	2232875.61	3.00
GMAC134		AC134	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015364.47	2232839.89	3.00
GMAC135		AC135	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015134.35	2232834.85	3.00
GMAC136		AC136	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015142.03	2232834.20	3.00
GMAC137		AC137	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015363.74	2232807.46	3.00
GMAC138		AC138	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015274.41	2232799.22	3.00
GMAC139		AC139	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015135.00	2232802.60	3.00
GMAC140		AC140	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015141.17	2232802.12	3.00
GMAC141		AC141	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015222.24	2232729.56	3.00
GMAC142		AC142	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015222.33	2232696.40	3.00
GMAC143		AC143	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015496.89	2232838.19	3.00
GMAC144		AC144	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015450.54	2232775.35	3.00
GMAC145		AC145	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015484.39	2232781.12	3.00
GMAC146		AC146	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015495.85	2232804.34	3.00
GMAC147		AC147	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015490.69	2232861.02	3.00
GMAC148		AC148	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015487.30	2232883.16	3.00
GMAC149		AC149	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015449.37	2232910.07	3.00
GMAC150		AC150	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015415.43	2232911.11	3.00
GMAC151		AC151	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015496.24	2232963.54	3.00
GMAC152		AC152	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015216.48	2232729.28	3.00
GMAC153		AC153	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015215.72	2232696.62	3.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
GMAC154		AC154	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015269.86	2232624.09	3.00
GMAC155		AC155	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015304.24	2232623.47	3.00
GMAC156		AC156	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015354.63	2232694.08	3.00
GMAC157		AC157	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015361.75	2232693.74	3.00
GMAC158		AC158	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015356.54	2232726.72	3.00
GMAC159		AC159	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015362.09	2232726.38	3.00
GMAC160		AC160	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015360.14	2232647.73	3.00
GMAC161		AC161	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015493.39	2232644.87	3.00
GMAC162		AC162	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015493.89	2232690.79	3.00
GMAC163		AC163	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6015495.10	2232723.42	3.00
GMAC164		AC164	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014655.85	2232637.97	3.00
GMAC165		AC165	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014829.33	2232633.94	3.00
GMAC166		AC166	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	r	6014795.22	2232634.72	3.00
RTAC001		AC167	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014462.45	2232672.83	43.00
RTAC002		AC168	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014456.55	2232683.76	43.00
RTAC003		AC169	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014462.45	2232683.76	43.00
RTAC004		AC170	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014457.76	2232694.35	43.00
RTAC005		AC171	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014462.80	2232694.18	43.00
RTAC006		AC172	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014457.07	2232701.99	43.00
RTAC007		AC173	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014463.32	2232701.99	43.00
RTAC008		AC174	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014457.42	2232711.54	43.00
RTAC009		AC175	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014463.49	2232711.02	43.00
RTAC010		AC176	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014458.80	2232723.17	43.00
RTAC011		AC177	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014463.49	2232722.65	43.00
RTAC012		AC178	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014458.63	2232731.51	43.00
RTAC013		AC179	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014463.84	2232731.16	43.00
RTAC014		AC180	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014456.29	2232653.55	43.00
RTAC015		AC181	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014462.10	2232653.55	43.00
RTAC016		AC182	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014457.85	2232740.53	43.00
RTAC017		AC183	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014464.10	2232740.53	43.00
RTAC018		AC184	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014449.94	2232825.27	43.00
RTAC019		AC185	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014456.15	2232824.83	43.00
RTAC020		AC186	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014450.48	2232843.17	43.00
RTAC021		AC187	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014457.75	2232843.06	43.00
RTAC022		AC188	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014450.85	2232851.68	43.00
RTAC023		AC189	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014457.75	2232851.70	43.00
RTAC024		AC190	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014451.46	2232860.51	43.00
RTAC025		AC191	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014457.86	2232860.33	43.00
RTAC026		AC192	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014452.05	2232869.60	43.00
RTAC027		AC193	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014458.30	2232869.45	43.00
RTAC028		AC194	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014451.63	2232878.48	43.00
RTAC029		AC195	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014458.47	2232878.39	43.00
RTAC030		AC196	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014452.07	2232890.91	43.00
RTAC031		AC197	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014459.14	2232891.11	43.00
RTAC032		AC198	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014452.33	2232897.40	43.00
RTAC033		AC199	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014459.47	2232897.05	43.00
RTAC034		AC200	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014452.85	2232905.30	43.00
RTAC035		AC201	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014459.27	2232905.43	43.00
RTAC036		AC202	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014453.82	2232917.17	43.00
RTAC037		AC203	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014459.68	2232917.01	43.00
RTAC038		AC204	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014453.80	2232924.31	43.00
RTAC039		AC205	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014459.92	2232924.27	43.00
RTAC040		AC206	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014453.96	2232930.93	43.00
RTAC041		AC207	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014460.01	2232930.86	43.00
RTAC042		AC208	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014454.15	2232937.27	43.00
RTAC043		AC209	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014459.47	2232937.05	43.00
RTAC044		AC210	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014454.48	2232943.56	43.00
RTAC045		AC211	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014459.90	2232943.67	43.00
RTAC046		AC212	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014463.99	2233074.18	43.00
RTAC047		AC213	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014463.45	2233067.45	43.00
RTAC048		AC214	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014472.56	2233074.29	43.00
RTAC049		AC215	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014471.91	2233067.13	43.00
RTAC050		AC216	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014479.83	2233074.18	43.00
RTAC051		AC217	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014479.83	2233066.70	43.00
RTAC052		AC218	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014488.51	2233073.75	43.00
RTAC053		AC219	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014488.30	2233066.26	43.00
RTAC054		AC220	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014497.52	2233073.42	43.00
RTAC055		AC221	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014497.52	2233065.39	43.00
RTAC056		AC222	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014507.50	2233073.21	43.00
RTAC057		AC223	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014507.94	2233065.39	43.00
RTAC058		AC224	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014517.49	2233073.21	43.00
RTAC059		AC225	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014517.92	2233064.53	43.00
RTAC060		AC226	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014527.47	2233072.77	43.00
RTAC061		AC227	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014527.79	2233064.42	43.00
RTAC062		AC228	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014537.88	2233072.77	43.00
RTAC063		AC229	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014537.88	2233064.53	43.00
RTAC064		AC230	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014462.16	2232661.29	43.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
RTAC065		AC231	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014450.30	2232835.35	43.00
RTAC066		AC232	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014457.35	2232835.02	43.00
RTAC067		AC233	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014452.03	2232884.50	43.00
RTAC068		AC234	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014458.98	2232884.17	43.00
RTAC069		AC235	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014454.81	2233074.20	43.00
RTAC070		AC236	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014454.16	2233067.91	43.00
RTAC071		AC237	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014453.63	2232911.41	43.00
RTAC072		AC238	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014459.62	2232911.54	43.00
RTAC073		AC239	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014454.75	2232948.63	43.00
RTAC074		AC240	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014459.96	2232948.19	43.00
RTAC075		AC241	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014457.56	2232952.28	43.00
RTAC076		AC242	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014456.19	2232673.04	43.00
RTAC077		AC243	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014456.10	2232661.67	43.00
RTAC078		AC244	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014690.11	2232916.17	3.00
RTAC079		AC245	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014801.92	2232918.25	3.00
RTAC080		AC246	76.0	76.0	76.0	Lw	76		675.00	0.00	270.00	3.00	g	6014801.22	2232914.08	3.00

Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Operating Time			Moving Pt. Src				Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	Number			Speed	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	Day	Evening	Night	(mph)	(ft)

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height		Coordinates			
				left	right		horz.	vert.	Begin	End	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING			BUILDING00001	x	0		40.00	r	6014559.58	2233110.87	40.00	0.00
									6014557.15	2233012.95	40.00	0.00
									6014536.32	2233012.95	40.00	0.00
									6014537.01	2233039.86	40.00	0.00
									6014525.73	2233039.86	40.00	0.00
									6014525.56	2233041.08	40.00	0.00
									6014514.62	2233041.08	40.00	0.00
									6014514.62	2233041.77	40.00	0.00
									6014491.01	2233042.29	40.00	0.00
									6014491.01	2233041.43	40.00	0.00
									6014479.90	2233041.43	40.00	0.00
									6014479.90	2233040.56	40.00	0.00
									6014468.96	2233040.56	40.00	0.00
									6014468.79	2233039.34	40.00	0.00
									6014457.33	2233039.34	40.00	0.00
									6014457.50	2233041.25	40.00	0.00
									6014448.47	2233041.43	40.00	0.00
									6014448.30	2233039.86	40.00	0.00
									6014436.84	2233039.86	40.00	0.00
									6014437.19	2233053.23	40.00	0.00
									6014435.97	2233053.23	40.00	0.00
									6014435.97	2233065.21	40.00	0.00
									6014434.41	2233065.04	40.00	0.00
									6014434.93	2233088.47	40.00	0.00
									6014437.19	2233088.47	40.00	0.00
									6014437.19	2233100.63	40.00	0.00
									6014437.88	2233100.63	40.00	0.00
									6014438.58	2233114.00	40.00	0.00
									6014470.00	2233113.13	40.00	0.00

Name	Sel.	M.	ID	RB	Residents	Absorption	Height		Coordinates			
							Begin		x	y	z	Ground
							(ft)		(ft)	(ft)	(ft)	(ft)
									6014469.83	2233108.96	40.00	0.00
									6014493.26	2233108.61	40.00	0.00
									6014493.26	2233091.25	40.00	0.00
									6014514.45	2233090.90	40.00	0.00
									6014514.97	2233107.57	40.00	0.00
									6014538.23	2233107.40	40.00	0.00
									6014538.40	2233111.74	40.00	0.00
BUILDING			BUILDING00002	x	0		40.00	r	6014426.08	2232978.80	40.00	0.00
									6014522.95	2232976.72	40.00	0.00
									6014522.26	2232955.01	40.00	0.00
									6014495.87	2232956.06	40.00	0.00
									6014493.44	2232819.08	40.00	0.00
									6014520.00	2232818.56	40.00	0.00
									6014519.65	2232795.99	40.00	0.00
									6014421.91	2232798.59	40.00	0.00
									6014422.43	2232820.12	40.00	0.00
									6014434.24	2232819.94	40.00	0.00
									6014434.58	2232840.78	40.00	0.00
									6014428.51	2232840.78	40.00	0.00
									6014429.20	2232865.26	40.00	0.00
									6014425.73	2232865.26	40.00	0.00
									6014426.42	2232911.61	40.00	0.00
									6014430.07	2232911.44	40.00	0.00
									6014430.59	2232936.09	40.00	0.00
									6014436.84	2232936.09	40.00	0.00
									6014437.01	2232956.58	40.00	0.00
									6014425.38	2232957.10	40.00	0.00
BUILDING			BUILDING00003	x	0		40.00	r	6014421.61	2232768.33	40.00	0.00
									6014519.26	2232765.94	40.00	0.00
									6014518.61	2232744.46	40.00	0.00
									6014492.35	2232744.68	40.00	0.00
									6014491.70	2232666.12	40.00	0.00
									6014516.22	2232665.47	40.00	0.00
									6014516.01	2232644.20	40.00	0.00
									6014467.40	2232645.72	40.00	0.00
									6014466.96	2232642.25	40.00	0.00
									6014443.96	2232642.90	40.00	0.00
									6014443.96	2232645.50	40.00	0.00
									6014419.44	2232645.50	40.00	0.00
									6014419.65	2232678.05	40.00	0.00
									6014423.34	2232678.05	40.00	0.00
									6014423.99	2232701.27	40.00	0.00
									6014440.70	2232700.62	40.00	0.00
									6014440.92	2232723.19	40.00	0.00
									6014424.86	2232723.19	40.00	0.00
									6014424.86	2232746.20	40.00	0.00
									6014420.74	2232746.85	40.00	0.00

Ground Absorption(s)

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(ft)	(ft)

APPENDIX 11.1:

CONSTRUCTION NOISE LEVEL CALCULATIONS

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14501 - 4665 Lampson Ave

CadnaA Noise Prediction Model: 14501-06_Construction.cna
Date: 02.04.24
Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
R1		R1	59.1	-43.9	56.1	0.0	0.0	0.0		x	Total	0.00	a	6015314.98	2233283.64	0.00
R2		R2	54.8	-48.2	51.8	0.0	0.0	0.0		x	Total	0.00	a	6016382.65	2232669.61	0.00
R3		R3	63.6	-39.4	60.6	0.0	0.0	0.0		x	Total	0.00	a	6014936.74	2232530.15	0.00
R4		R4	35.1	-67.7	32.1	0.0	0.0	0.0		x	Total	0.00	a	6009375.12	2233274.30	0.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)

Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Operating Time			Moving Pt. Src				Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	Number			Speed		
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	Day	Evening	Night	(mph)	(ft)	

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
CONSTRUCTION_ACTIVITY		CONSTRUCTION_ACTIVITY1	118.6	15.6	15.6	71.2	-31.8	-31.8	PWL-Pt	115.6					8	a

Name	ID	Height				Coordinates			
		Begin		End		x	y	z	Ground
		(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
CONSTRUCTION_ACTIVITY	CONSTRUCTION_ACTIVITY1	8.00	a			6016380.34	2232578.54	8.00	0.00
						6016380.16	2232549.89	8.00	0.00
						6014933.66	2232581.11	8.00	0.00
						6014933.72	2232616.25	8.00	0.00
						6014457.04	2232626.27	8.00	0.00
						6014411.41	2232627.23	8.00	0.00
						6014419.54	2233133.01	8.00	0.00
						6015505.92	2233105.37	8.00	0.00
						6015494.54	2232604.46	8.00	0.00

Barrier(s)

Name	Sel.	M.	ID	Absorption		Z-Ext.	Cantilever		Height		Coordinates			
				left	right		horz.	vert.	Begin	End	x	y	z	Ground
						(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Building(s)

Name	Sel.	M.	ID	RB	Residents	Absorption	Height	Coordinates				
							Begin	x	y	z	Ground	
							(ft)	(ft)	(ft)	(ft)	(ft)	

Ground Absorption(s)

Name	Sel.	M.	ID	G	Coordinates	
					x	y
					(ft)	(ft)

Contour(s)

Name	Sel.	M.	ID	OnlyPts	Height		Coordinates		
					Begin	End	x	y	z
					(ft)	(ft)	(ft)	(ft)	(ft)

Vertical Area Source(s)

Name	ID	Height		Coordinates			
		Begin	End	x	y	z	Ground
		(ft)	(ft)	(ft)	(ft)	(ft)	(ft)

Rail

Name	Sel.	M.	ID	Lw'		Train Class	Correct.	Vmax
				Day	Night		Track	
				(dBA)	(dBA)		(dB)	(km(mph)

Sound Level Spectra

Name	ID	Type	Oktave Spectrum (dB)											Source
			Weight.	31.5	63	125	250	500	1000	2000	4000	8000	A	lin	

Roads

Name	Sel.	M.	ID	Lme			Count Data		exact Count Data						Speed Limit		SCS	Surface		Gradient	Mult. Reflection		
				Day	Evening	Night	DTV	Str.class.	M			p (%)			Auto	Truck	Dist.	Dstro	Type		Drefl	Hbuild	Dist.
				(dBA)	(dBA)	(dBA)			Day	Evening	Night	Day	Evening	Night	(mph)	(mph)		(dB)		(%)	(dB)	(ft)	(ft)

RoadsGeo

Name	Height				Coordinates				Dist	LSlope
	Begin		End		x	y	z	Ground	(ft)	(%)
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)		