

NOISE IMPACT ANALYSIS

TIDEWATER CROSSING

LSA

September 2006

NOISE IMPACT ANALYSIS

TIDEWATER CROSSING

Prepared for:

City of Stockton
345 North El Dorado Street
Stockton, California 95202-8444

Prepared by:

LSA Associates, Inc.
20 Executive Park, Suite 200
Irvine, California 92614-4731
(949) 553-0666

LSA Project No. HDA530

The logo for LSA Associates, Inc. consists of the letters 'L', 'S', and 'A' in a bold, blue, sans-serif font, spaced out horizontally.

September 2006

TABLE OF CONTENTS

INTRODUCTION.....	1
PROJECT DESCRIPTION	1
METHODOLOGY RELATED TO NOISE IMPACT ASSESSMENT	1
CHARACTERISTICS OF SOUND.....	3
MEASUREMENT OF SOUND.....	3
PSYCHOLOGICAL AND PHYSIOLOGICAL EFFECTS OF NOISE.....	4
FUNDAMENTALS OF GROUNDBORNE VIBRATION.....	8
SETTING	9
THRESHOLDS OF SIGNIFICANCE	11
PROJECT IMPACTS.....	15
MITIGATION MEASURES.....	25
LEVEL OF SIGNIFICANCE AFTER MITIGATION.....	27
REFERENCES.....	27

APPENDIX

A: FHWA TRAFFIC NOISE MODEL PRINTOUTS

FIGURES AND TABLES

FIGURES

Figure 1: Project Location Map.....	2
-------------------------------------	---

TABLES

Table A: Definitions of Acoustical Terms	5
Table B: Common Sound Levels and Their Noise Sources	6
Table C: Land Use Compatibility for Exterior Community Noise.....	7
Table D: Existing (2006) Baseline Traffic Noise Levels	10
Table E: Groundborne Vibration and Noise Impact Criteria	12
Table F: Exterior Noise Level Standards for Locally Regulated Noise Sources.....	13
Table G: Land Use Compatibility for Community Noise Environments	13
Table H: Typical Maximum Construction Equipment Noise Levels (L_{max}).....	16
Table I: Predicted Traffic Noise Levels at the First Row of Outdoor Activity Areas with Varying Barrier Heights.....	19
Table J: Existing (2006) Baseline Traffic Noise Levels.....	20
Table K: Existing Plus Approved Projects Traffic Noise Levels	20
Table L: Existing Plus Approved Projects Plus Project Traffic Noise Levels	21
Table M: Future (2025) Traffic Noise Levels	21
Table N: Future (2025) Plus Project Traffic Noise Levels.....	22
Table O: Future (2035) Traffic Noise Levels.....	22
Table P: Future (2035) Plus Project Traffic Noise Levels	23

INTRODUCTION

This noise impact analysis has been prepared to evaluate the potential noise impacts and mitigation measures associated with the development of the Tidewater Crossing project in the City of Stockton (City), California. This report is intended to satisfy the City's requirement for a project-specific noise impact analysis by examining the short-term and long-term impacts on the project site and by evaluating the effectiveness of mitigation measures incorporated as part of the project designs.

PROJECT DESCRIPTION

The City of Stockton (City) is proposing to develop an industrial/residential project on lands south of and contiguous to the Stockton Metropolitan Airport. The proposed project includes a General Plan Amendment, Master Development Plan (MDP), pre-zoning, Tentative Tract Map, Annexation, Sphere of Influence amendment for a portion of the project, and a Development Agreement for approximately 909 acres of predominately in farmland and rural residential uses. The project is designated as Village L in the City's Draft 2035 General Plan land use diagram.

The project is generally bounded by the Stockton Metropolitan Airport to the north, Highway 99 to the east, Union Pacific Railroad to the west and East French Camp Road to the south. Figure 1 shows the project location.

METHODOLOGY RELATED TO NOISE IMPACT ASSESSMENT

Evaluation of noise impacts associated with the proposed project includes the following:

- Determine the short-term construction noise impacts on on-site and off-site noise-sensitive land uses
- Determine the long-term traffic noise impacts on off-site noise-sensitive uses
- Determine the long-term traffic, rail, and aircraft noise impacts on on-site uses
- Determine the long-term stationary noise impacts on on-site and off-site noise-sensitive uses from on-site uses
- Determine the required mitigation measures to reduce short-term and long-term noise impacts

This noise impact analysis utilizes the City's noise standards, including the City's Noise Element and Municipal Code, as thresholds against which potential noise impacts are evaluated.

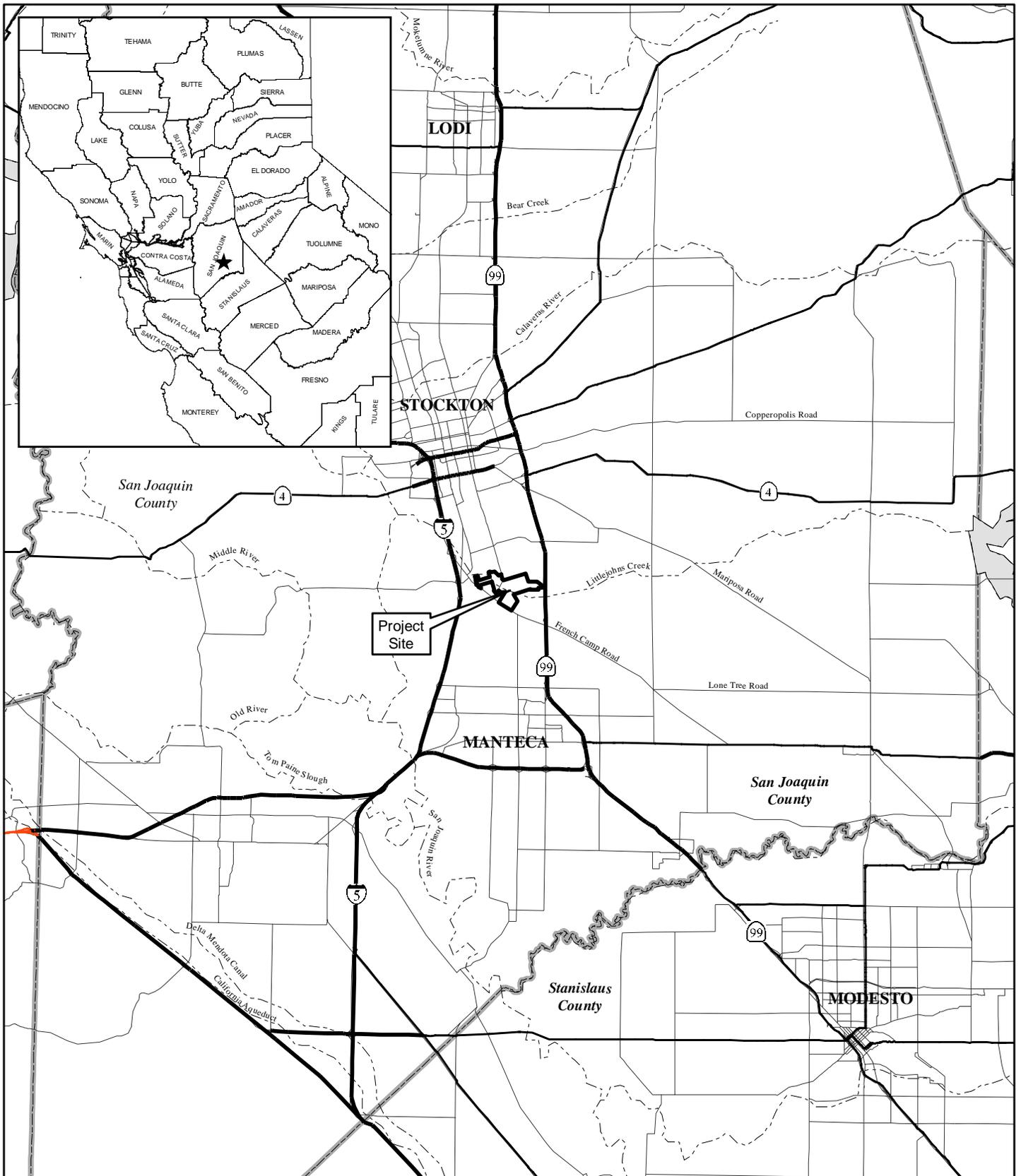
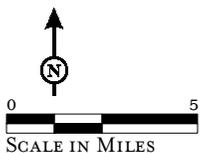


FIGURE 1

LSA



CHARACTERISTICS OF SOUND

Sound is increasing in the environment and can affect quality of life. Noise is usually defined as unwanted sound. Noise consists of any sound that may produce physiological or psychological damage and/or interfere with communication, work, rest, recreation, and sleep. To the human ear, sound has two significant characteristics: pitch and loudness. Pitch is generally an annoyance, while loudness can affect the ability to hear. Pitch is the number of complete vibrations, or cycles per second, of a wave, resulting in the tone's range from high to low. Loudness is the strength of a sound and describes a noisy or quiet environment; it is measured by the amplitude of the sound wave. Loudness is determined by the intensity of the sound waves, combined with the reception characteristics of the human ear. Sound intensity refers to how hard the sound wave strikes an object, which in turn produces the sound's effect. This characteristic of sound can be precisely measured with instruments. The analysis of a project defines the noise environment of the project area in terms of sound intensity and its effect on adjacent sensitive land uses.

MEASUREMENT OF SOUND

Sound intensity is measured through the A-weighted (dBA) scale to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies. Unlike linear units, such as inches or pounds, decibels (dB) are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 decibels are 10 times more intense than 1 decibel, 20 decibels are 100 times more intense, and 30 decibels are 1,000 times more intense. Thirty decibels represent 1,000 times more acoustic energy than 1 decibel. The decibel scale increases as the square of the change, representing the sound pressure energy. A sound as soft as human breathing is about 10 times greater than 0 decibels. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. A 10-decibel increase in sound level is perceived by the human ear as only a doubling of the loudness of the sound. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud).

Sound levels are generated from a source, and their decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. For a single point source, sound levels decrease approximately six decibels for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by stationary equipment. If noise is produced by a line source, such as highway traffic or railroad operations, the sound decreases three decibels for each doubling of distance in a hard site environment. Line source noise, when produced within a relatively flat environment with absorptive vegetation, decreases four and one-half decibels for each doubling of distance.

There are many ways to rate noise for various time periods, but an appropriate rating of ambient noise affecting humans also accounts for the annoyance effects of sound. Equivalent continuous sound level (L_{eq}) is the total sound energy of time-varying noise over a sample period. However, the predominant rating scales for human communities in the State of California are the L_{eq} and community noise equivalent level (CNEL) or the day-night average level (L_{dn}) based on A-weighted decibels (dBA). CNEL is the time-varying noise over a 24-hour period, with a 5 dBA weighting factor applied to the

hourly L_{eq} for noises occurring from 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA weighting factor applied to noise occurring from 10:00 p.m. to 7:00 a.m. (defined as sleeping hours). L_{dn} is similar to the CNEL scale but without the adjustment for events occurring during the evening hours. CNEL and L_{dn} are within 1 dBA of each other and are normally exchangeable. The noise adjustments are added to the noise events occurring during the more sensitive hours. Other noise rating scales of importance when assessing the annoyance factor include the maximum noise level (L_{max}), which is the highest exponential time-averaged sound level that occurs during a stated time period. The noise environments discussed in this analysis are specified in terms of maximum levels denoted by L_{max} for short-term noise impacts. L_{max} reflects peak operating conditions and addresses the annoyance aspects of intermittent noise.

Another noise scale often used together with the L_{max} in noise ordinances for enforcement purposes is noise standards in terms of percentile noise levels. For example, the L_{10} noise level represents the noise level exceeded 10 percent of the time during a stated period. The L_{50} noise level represents the median noise level. Half the time the noise level exceeds this level, and half the time it is less than this level. The L_{90} noise level represents the noise level exceeded 90 percent of the time and is considered the background noise level during a monitoring period. For a relatively constant noise source, the L_{eq} and L_{50} are approximately the same.

Noise impacts can be described in three categories. The first is audible impacts, referring to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3 dB or greater, since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1 and 3 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise level of less than 1 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

PSYCHOLOGICAL AND PHYSIOLOGICAL EFFECTS OF NOISE

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions and thereby affecting blood pressure and functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA would result in permanent cell damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. A sound level of 160 to 165 dBA will result in dizziness or loss of equilibrium.

The ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less developed areas.

Table A lists definitions of acoustical terms; Table B shows common sound levels and their noise sources; and Table C shows land use compatibility for exterior community noise, as recommended by the California Department of Health, Office of Noise Control.

Table A: Definitions of Acoustical Terms

Term	Definition
Decibel, dB	A unit of level that denotes the ratio between two quantities that are proportional to power; the number of decibels is 10 times the logarithm (to the base 10) of this ratio.
Frequency, Hz	Of a function periodic in time, the number of times that the quantity repeats itself in one second (i.e., number of cycles per second).
A-Weighted Sound Level, dBA	The sound level obtained by use of A-weighting. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. All sound levels in this report are A-weighted, unless reported otherwise.
L ₀₂ , L ₀₈ , L ₅₀ , L ₉₀	The fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 2 percent, 8 percent, 50 percent, and 90 percent of a stated time period, respectively.
Equivalent Continuous Noise Level, L _{eq}	The level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound.
Community Noise Equivalent Level, CNEL	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 5 decibels to sound levels occurring in the evening from 7:00 p.m. to 10:00 p.m. and after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
Day/Night Noise Level, L _{dn}	The 24-hour A-weighted average sound level from midnight to midnight, obtained after the addition of 10 decibels to sound levels occurring in the night between 10:00 p.m. and 7:00 a.m.
L _{max} , L _{min}	The maximum and minimum A-weighted sound levels measured on a sound level meter, during a designated time interval, using fast time averaging.
Ambient Noise Level	The all-encompassing noise associated with a given environment at a specified time, usually a composite of sound from many sources at many directions, near and far; no particular sound is dominant.
Intrusive	The noise that intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurement and Noise Control 1991.

Table B: Common Sound Levels and Their Noise Sources

Noise Source	A-Weighted Sound Level in Decibels	Noise Environments	Subjective Evaluations
Near jet engine	140	Deafening	128 times as loud
Civil defense siren	130	Threshold of pain	64 times as loud
Hard rock band	120	Threshold of feeling	32 times as loud
Accelerating motorcycle at a few feet away	110	Very loud	16 times as loud
Pile driver; noisy urban street/heavy city traffic	100	Very loud	8 times as loud
Ambulance siren; food blender	95	Very loud	
Garbage disposal	90	Very loud	4 times as loud
Freight cars; living room music	85	Loud	
Pneumatic drill; vacuum cleaner	80	Loud	2 times as loud
Busy restaurant	75	Moderately loud	
Near freeway auto traffic	70	Moderately loud	Reference level
Average office	60	Quiet	½ as loud
Suburban street	55	Quiet	
Light traffic; soft radio music in apartment	50	Quiet	¼ as loud
Large transformer	45	Quiet	
Average residence without stereo playing	40	Faint	⅛ as loud
Soft whisper	30	Faint	
Rustling leaves	20	Very faint	
Human breathing	10	Very faint	Threshold of hearing
	0	Very faint	

Source: Compiled by LSA Associates, Inc., 2004.

Table C: Land Use Compatibility for Exterior Community Noise

Land Use Category	Noise Range (L_{dn} or CNEL), dB			
	I	II	III	IV
Passively used open spaces	50	50–55	55–70	70+
Auditoriums, concert halls, amphitheaters	45–50	50–65	65–70	70+
Residential—low-density single family, duplex, mobile homes	50–55	55–70	70–75	75+
Residential—multifamily	50–60	60–70	70–75	75+
Transient lodging—motels, hotels	50–60	60–70	70–80	80+
Schools, libraries, churches, hospitals, nursing homes	50–60	60–70	70–80	80+
Actively used open spaces—playgrounds, neighborhood parks	50–67	—	67–73	73+
Golf courses, riding stables, water recreation, cemeteries	50–70	—	70–80	80+
Office buildings, business commercial and professional	50–67	67–75	75+	—
Industrial, manufacturing, utilities, agriculture	50–70	70–75	75+	—

Source: California Department of Health, Office of Noise Control 1976.

Noise Range I—Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Noise Range II—Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made, and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

Noise Range III—Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Noise Range IV—Clearly Unacceptable: New construction or development should generally not be undertaken.

FUNDAMENTALS OF GROUNDBORNE VIBRATION

Vibration refers to groundborne noise and perceptible motion. Groundborne vibration is almost exclusively a concern inside buildings and is rarely perceived as a problem outdoors, where the motion may be discernable, but without the effects associated with the shaking of a building there is less adverse reaction. Vibration energy propagates from a source through intervening soil and rock layers to the foundations of nearby buildings. The vibration then propagates from the foundation throughout the remainder of the structure. Building vibration may be perceived by the occupants as motion of building surfaces, rattling of items on shelves or hanging on walls, or as a low-frequency rumbling noise. The rumbling noise is caused by the vibrating walls, floors, and ceilings radiating sound waves. Building damage is not a factor for normal projects, with the occasional exception of blasting and pile driving during construction. Annoyance from vibration often occurs when the vibration exceeds the threshold of perception by up to 10 decibels. This is an order of magnitude below the damage threshold for normal buildings.

Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with groundborne vibration and noise from these sources are usually localized to within about 100 feet of the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 feet, as described in the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment (FTA, April 1995). When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible. It is assumed for this project that the roadway surface will be smooth enough that groundborne vibration from street traffic will not exceed the impact criteria; however, construction of the proposed project could result in groundborne vibration that could be perceptible and annoying. Groundborne noise is not likely to be a problem because noise arriving via the normal airborne path usually will be greater than groundborne noise.

Groundborne vibration has the potential to disturb people as well as to damage buildings. Although it is rare for traffic-induced groundborne vibration to cause even cosmetic building damage, it is not uncommon for construction processes such as blasting and pile driving to cause vibration of sufficient amplitude to damage nearby buildings (FTA 1995). Groundborne vibration is usually measured in terms of vibration velocity, either the root-mean-square (rms) velocity or peak particle velocity (PPV). The rms velocity is best for characterizing human response to building vibration, and PPV is used to characterize potential for damage. Decibel notation acts to compress the range of numbers required to describe vibration. Vibration velocity level in decibels is defined as:

$$L_v = 20 \log_{10} [V/V_{ref}]$$

where “ L_v ” is the velocity in decibels (VdB), “ V ” is the rms velocity amplitude, and “ V_{ref} ” is the reference velocity amplitude, or 1×10^{-6} inches/second used in the United States.

Factors that influence groundborne vibration and noise include the following:

- Vibration Source: vehicle suspension, wheel types and condition, track/roadway surface, track support system, speed, transit structure, and depth of vibration source
- Vibration Path: soil type, rock layers, soil layering, depth to water table, and frost depth

- Vibration Receiver: foundation type, building construction, and acoustical absorption

Among the factors listed above, there are significant differences in the vibration characteristics when the source is underground compared to at ground surface. In addition, soil conditions are known to have a strong influence on the levels of groundborne vibration. Among the most important factors are the stiffness and internal damping of the soil and the depth to bedrock. Vibration propagation is more efficient in stiff clay soils than in loose sandy soils, and shallow rock seems to concentrate the vibration energy close to the surface and can result in groundborne vibration problems at a great distance from the track. Factors such as layering of the soil and depth to water table can have significant effects on the propagation of groundborne vibration. Soft, loose, sandy soils tend to attenuate more vibration energy than hard, rocky materials. Vibration propagation through groundwater is more efficient than through sandy soils.

SETTING

Existing Sensitive Land Uses in the Project Area

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to noise. Existing sensitive land uses within the project area include single-family residences along South Airport Way and East French Camp Road. These sensitive land uses may potentially be affected by the noise generated during construction on the project site. Other land uses within the project area include industrial, commercial, and open space.

Overview of the Existing Noise Environment

The primary existing noise sources in the project area are transportation facilities. Traffic on Airport Way, Performance Drive, CE Dixon Street, French Camp Road, and other local streets is the dominant source contributing to the ambient noise levels in the project vicinity. Noise from motor vehicles is generated by engine vibrations, the interaction between the tires and the road, and the exhaust system. Other noise sources within the project area include three Union Pacific Railroad lines and the Stockton Metropolitan Airport. Noise levels on and in the vicinity of the project site will change as a result of the proposed project. Potential noise impacts associated with the project include road noise due to increases in vehicular traffic and construction noise.

Existing Traffic Noise. The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions in the vicinity of the project site. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry, to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The existing average daily traffic (ADT) volumes in the area were taken from the *Traffic Impact Analysis* prepared for this project (Fehr & Peers Transportation Consultants, August 2006). The resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. Table D provides the existing (2006) traffic noise levels adjacent to roadway segments in the project vicinity. These noise levels represent worst-case scenarios, which assume that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and the model printouts are provided in Appendix A.

Table D: Existing (2006) Baseline Traffic Noise Levels

Roadway Segment	ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 Feet from Outermost Lane
Airport Way					
North of Sperry Road	8,100	< 50 ¹	67	140	64.9
Between Sperry Road and Performance Drive	8,900	< 50	71	149	65.3
Between Performance Drive and French Camp Road	9,400	< 50	73	154	65.5
South of French Camp Road	6,900	< 50	61	126	64.2
French Camp Road					
Between Sperry Road and Ash Street	300	< 50	< 50	< 50	50.4
Between Ash Street and Airport Way	6,700	< 50	< 50	101	63.9
East of Airport Way	11,100	< 50	66	141	66.1
Ash Street					
East of French Camp Road	7,300	< 50	< 50	107	64.2
West of French Camp Road	8,200	< 50	54	116	64.8
Sperry Road West					
Between French Camp Road and Airport Way	2,600	< 50	< 50	68	60.0
Between Airport Way and Quantas Lane	7,500	< 50	64	133	64.6
Arch-Airport Road					
East of Quantas Lane	11,000	< 50	81	171	66.2
Performance Drive					
West of Airport Way	1,700	< 50	< 50	< 50	57.9
CE-Dixon Street					
East of Airport Way	1,500	< 50	< 50	< 50	57.4

Source: LSA Associates, Inc., September 2006.

Table D shows that traffic noise is generally moderate along existing street segments in the project vicinity. None of the roadways in the project vicinity currently generate noise levels in excess of 70 dBA CNEL. Along Performance Drive and CE-Dixon Street, the 70, 65, and 60 dBA CNEL impact zones are all confined within the roadway right-of-way. Along French Camp Road east of Airport Way, the 65 and 60 dBA CNEL impact zones extend up to 66 and 141 feet, respectively.

Existing Rail Operations

The project area contains three functioning rail lines, operated by the Union Pacific Railroad, that produce noise and groundborne vibration. The first rail line, located within the project area, is an access line that is currently used by 3 to 4 trains per day. The second rail line, located along the

¹ Traffic noise within 50 feet of the roadway centerline requires site-specific analysis.

western edge of the project area, is a main line that is currently used by 30 to 40 trains per day. The third existing rail line is a main line located approximately 1,600 feet west of the proposed project site.

Existing Airport Operations

The Stockton Metropolitan Airport is located adjacent to the project site to the North. Based on the *CNEL Contours for the 1994-95 Operations*, the eastern most portion of the proposed project site, which is to be developed with industrial facilities, is located within the 60 and 65 dBA CNEL aircraft noise contours. The proposed residential, school, and park areas are located outside of the 60 dBA CNEL noise contour.

THRESHOLDS OF SIGNIFICANCE

A project will normally have a significant noise-related effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of the community in which it is located. The applicable noise standards governing the project site are the criteria in the FTA's groundborne vibration and noise criteria and the City's Noise Element of the General Plan and the Municipal Code.

FTA's Groundborne Vibration and Noise Criteria

The FTA has compiled groundborne vibration and noise criteria for predicting community annoyance for transit operations from available national and international standards. These levels are based on the maximum levels for a single event. The criteria are primarily for passenger train operations, but they can be applied to freight trains. However, the differences between a passenger train and a freight train must be considered. A typical passenger train event will last approximately 10 seconds, whereas a 5,000-foot-long freight train traveling at 30 mph can take approximately 2 minutes to pass. Table E shows the FTA's groundborne vibration and noise impact criteria.¹ Table E also shows that the frequent and infrequent event criteria are based on a community response equivalent. Typically, a frequent event at lower levels would evoke the same response as an infrequent event at higher levels. Since the City does not have vibration standards for residential and commercial land uses, the vibration criteria established by the FTA were used to evaluate potential vibration impacts on adjacent land uses.

City of Stockton Noise Standards

Noise Element of the General Plan. Applicable policies and standards governing environmental noise in the City of Stockton are set forth in the Noise Element of the General Plan. The goals of the Noise Element, compiled under the mandate of Section 65302(f) of the California Government Code and guidelines prepared by the California Department of Health Services (DHS), are to ensure that all areas of the City are free from excessive noise and that appropriate maximum levels are adopted for residential, commercial, and industrial areas; to reduce new noise sources to the maximum extent

¹ FTA, April 1995.

possible; to reduce, to the maximum extent possible, the impact of noise within the City; and to ensure that land uses are compatible with the related noise characteristics of those uses. The following summarizes the City's noise standards.

Table E: Groundborne Vibration and Noise Impact Criteria

Land Use Category ¹	Groundborne Vibration Impact Levels (VdB re 1 micro inch/sec)		Groundborne Noise Impact Levels (dB re 20 micro Pascals)	
	Frequent ¹ Events	Infrequent ² Events	Frequent ¹ Events	Infrequent ² Events
Category 1: Buildings where low ambient vibration is essential for interior operations.	65 VdB ³	65 VdB ³	N/A ⁴	N/A ⁴
Category 2: Residences and buildings where people normally sleep.	72 VdB	80 VdB	35 dBA	43 dBA
Category 3: Institutional land uses with primarily daytime use.	75 VdB	83 VdB	40 dBA	48 dBA

Source: Federal Transit Administration 1995.

NOI-a The General Plan of the City of Stockton considers that new residential development shall not be allowed where the ambient noise level due to locally regulated noise sources (i.e., all noise sources other than roadway, railroad, and aircraft noise) will exceed the noise level standards as set forth below in Table F.

Each of the noise level standards specified in Table F shall be reduced by five dBA for simple tone noises, noises consisting of primarily speech or music, or for recurring impulsive noises.

NOI-b The compatibility of proposed projects with existing and future noise levels due to traffic on public roadways, railroad line operations, and aircraft in flight shall be evaluated by comparison to Table G.

¹ Type of land use exposed to vibration impact.

² "Frequent Events" are defined as more than 70 vibration events per day. Most rapid transit projects fall into this category.

³ "Infrequent Events" are defined as fewer than 70 vibration events per day. This category includes most commuter rail systems.

⁴ This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the heating, ventilation, and air-conditioning (HVAC) systems and stiffened floors.

⁵ Vibration-sensitive equipment is not sensitive to groundborne noise.

Table F: Exterior Noise Level Standards for Locally Regulated Noise Sources

Noise Level Descriptor	Daytime (7:00 a.m.–10:00 p.m.)	Nighttime (10:00 p.m. –7:00 a.m.)
Hourly L_{eq} , dBA	55	45
Maximum level, L_{max} , dBA	75	65

Source: City of Stockton, November 1998

Table G: Land Use Compatibility for Community Noise Environments

Land Use Category	Normally Acceptable ¹	Conditionally Acceptable ²	Normally Unacceptable ³	Clearly Unacceptable ⁴
Residential	50–60	60–70	70–75	75–85
Transient Lodging - Motels, Hotels	50–60	60–70	70–80	80–85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–60	60–70	70–80	80–85
Auditoriums, Concert Halls, Amphitheatres, Sport Arenas	N/A	50–75	N/A	75–85
Playgrounds, Neighborhood Parks	50–70	N/A	70–75	75–85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–75	N/A	75–80	80–85
Office Buildings, Business Commercial and Professional	50–67.5	67.5–75	75–85	N/A
Industrial, Manufacturing Utilities, Agriculture	50–70	70–80	80–85	N/A

Source: City of Stockton, November 1998

NOI-c New development of residential land uses will not be permitted in areas exposed to existing or projected exterior noise levels exceeding 60 dBA L_{dn} /CNEL or the standards of Table G unless the project design includes effective mitigation measures to reduce noise to the following levels:

- ¹ Normally Acceptable - Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
- ² Conditionally Acceptable - New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems of air conditioning, will normally suffice.
- ³ Normally Unacceptable - New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and the needed noise insulation features included in the design.
- ⁴ Clearly Unacceptable - New construction or development should generally not be undertaken.

- I. For noise due to traffic on public roadways, railroad line operations, and aircraft in flight: 60 dBA L_{dn} /CNEL or less in outdoor activity areas, and 45 dBA L_{dn} /CNEL or less in indoor areas. Where it is not possible to reduce exterior noise to 60 dBA L_{dn} /CNEL or less by incorporating a practical application of the best available noise-reduction technology, an exterior noise level of up to 65 dBA L_{dn} /CNEL will be allowed. Under no circumstances will interior noise levels be permitted to exceed 45 dBA L_{dn} /CNEL with the windows and doors closed.
- II. For noise from sources other than roadways, railroads, and aircraft, comply with the performance standards contained in Table G.

NOI-d Noise produced by commercial uses shall not exceed 75 dBA L_{dn} /CNEL at the nearest property line.

NOI-e Noise produced by industrial uses shall not exceed 80 dBA L_{dn} /CNEL at the nearest property line.

NOI-f The Office of Noise Control under the California Health and Safety Code has promulgated a 45 dBA CNEL standard for interior noise levels of multifamily residential units. The City also enforces building sound transmission and indoor fresh air ventilation requirements specified in Chapter 35 of the Uniform Building Code.

Municipal Code

Section 16-340.030 of the City's Municipal Code limits construction hours and loading and unloading activities across residential property lines.

The following acts are a violation of this Division and are therefore prohibited.

- a. **Construction Noise.** Operating or causing the operation of tools or equipment on private property used in alteration, construction, demolition, drilling, or repair work between the hours of 10:00 p.m. and 7:00 a.m. so that the sound creates a noise disturbance across a residential property line, except for emergency work of public service utilities, is prohibited.
- b. **Loading and Unloading Operations.** Loading, unloading, opening, closing, or other handling of boxes, crates, containers, building materials, garbage cans, or similar objects on private property between the hours of 10:00 p.m. and 7:00 a.m. in a manner to cause a noise disturbance is prohibited.
- c. **Sweepers and Associated Equipment.** Operating or allowing the operation of sweepers or associated sweeping equipment (e.g., blowers) on private property between the hours of 10:00 p.m. and 7:00 a.m. the following day in or adjacent to a residential zoning district is prohibited.

PROJECT IMPACTS

Construction Noise

Short-term noise impacts would be associated with excavation, grading, and erecting of buildings on site during construction of the proposed project. Construction-related short-term noise levels would be higher than existing ambient noise levels currently in the project area but would no longer occur once construction of the project is completed.

Two types of short-term noise impacts could occur during the construction of the proposed project. The first type involves construction crew commutes and the transport of construction equipment and materials to the site for the proposed project that would incrementally increase noise levels on access roads leading to the site. As shown in Table H, there will be a relatively high single-event noise exposure potential at a maximum level of 87 dBA L_{max} with trucks passing at 50 feet. However, the projected construction traffic will be small when compared to the existing traffic volumes on French Camp Road, Performance Drive, CE Dixon Street, and associated long-term noise-level changes will not be perceptible. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would not be substantial.

The second type of short-term noise impact is related to noise generated during excavation, grading, and construction on the project site. Construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on site. Therefore, the noise levels vary as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Table H lists maximum noise levels recommended for noise impact assessments for typical construction equipment, based on a distance of 50 feet between the equipment and a noise receptor. Typical maximum noise levels range up to 91 dBA L_{max} at 50 feet during the noisiest construction phases. The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because earthmoving machinery is the noisiest construction equipment. Earthmoving equipment includes excavating machinery such as backfillers, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three or four minutes at lower-power settings.

Construction of the proposed project is expected to require the use of earthmovers, bulldozers, water trucks, and pickup trucks. This equipment would be used on the project site. Based on Table H, the maximum noise level generated by each scraper on the proposed project site is assumed to be 87 dBA L_{max} at 50 feet from the earthmover. Each bulldozer would also generate 85 dBA L_{max} at 50 feet. The maximum noise level generated by water trucks and pickup trucks is approximately 86 dBA L_{max} at 50 feet from these vehicles. Each doubling of a sound source with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level at each individual residence during this phase of construction would be 91 dBA L_{max} at a distance of 50 feet from the active construction area. The closest existing residence in the vicinity of the project area is located approximately 50 feet from the project construction area. There are no intervening structures between the existing residence and the project site. The closest residences may be subject to short-term noise reaching 91 dBA L_{max} ,

generated by construction activities near the project boundary. Compliance with the hours specified in the City's Municipal Code regarding construction activities will result in a less than significant noise impact on adjacent residences.

Table H: Typical Maximum Construction Equipment Noise Levels (L_{max})

Type of Equipment	Range of Maximum Sound Level Measured at 50 Feet (dBA)	Suggested Maximum Sound Level for Analysis at 50 Feet (dBA)
Pile drivers (12,000 to 18,000 ft-lb/blow)	81–96	93
Rock drills	83–99	96
Jackhammers	75–85	82
Pneumatic tools	78–88	85
Pumps	74–84	80
Scrapers	83–91	87
Haul trucks	83–94	88
Cranes	79–86	82
Portable generators	71–87	80
Rollers	75–82	80
Dozers	77–90	85
Tractors	77–82	80
Front-end loaders	77–90	86
Hydraulic backhoes	81–90	86
Hydraulic excavators	81–90	86
Graders	79–89	86
Air compressors	76–89	86
Trucks	81–87	86

Source: Bolt, Beranek, & Newman. Noise Control for Buildings and Manufacturing Plants 1987.

Traffic Noise Impact

The projected future traffic volumes (Fehr & Peers, August 2006) for roadway segments in the project vicinity were used in the traffic noise impact analysis.

The FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate future traffic-related noise conditions in the vicinity of the project site. The specific assumptions used in developing these noise levels and the model printouts are provided in Appendix A.

Off-site Traffic Noise Impacts. Pursuant to the project's Significance Criteria, a project will have a significant noise-related impact if it will substantially increase the noise levels for the adjoining areas. A 3 dBA increase in ambient noise levels is the audible increase considered barely perceptible in exterior environments; thus a substantial increase is normally defined as an increase in ambient noise levels of greater than 3 dBA. No roadway segments under any of the with project scenarios, as shown in Tables L, N, and P are predicted to experience a substantial increase in traffic noise levels greater than 3 dBA due to implementation of the proposed project compared to traffic noise levels without the project. Thus increased traffic noise levels for off-site sensitive receptors due to implementation of the proposed project would result in a less-than-significant impact.

On-site Traffic Noise Impact. The proposed project includes single family and multi family residences, parks, and a school. With the exception of the proposed school these sensitive land uses are to be located adjacent to the roadways listed in Tables K through N. As shown in Table P, the 2035 with project traffic noise levels would continue to be moderately high along French Camp Road and Airport Way within the project area.

Traffic noise levels along French Camp Road could reach up to 72 dBA CNEL under the 2035 with project conditions. Based on the EPA's Protective Noise Levels (EPA 550/9-79-100, November 1978), with a combination of walls, doors, and windows, standard construction for northern California residential buildings would provide more than 25 dBA in exterior to interior noise reduction with windows closed and 15 dBA or more with windows open. With windows open, homes exposed to exterior noise levels in excess of 60 dBA CNEL would not meet the interior noise level standards (i.e., $72 \text{ dBA} - 15 \text{ dBA} = 57 \text{ dBA}$). Therefore, a form of mechanical ventilation such as air conditioning systems would be required for all residences in the following areas within the project site to ensure that windows can remain closed for a prolonged period of time:

- All residences located within approximately 500 feet of French Camp Road; and
- All residences located within approximately 400 feet of Airport Way.

Second floor rooms directly facing French Camp Road and Airport Way would be exposed to traffic noise levels up to 72 dBA CNEL would not meet the interior noise standard (i.e., $72 \text{ dBA} - 25 \text{ dBA} = 47 \text{ dBA}$). Therefore, in addition to mechanical ventilation, windows, doors and wall assemblies with a minimum STC-30 rating would be required for all upper floor rooms in the facades of residential units that are within 150 feet of and directly exposed to French Camp Road or that are within 100 feet of and directly exposed to Airport Way.

In addition, as shown in Table I, sound barriers with a minimum height of 10 feet would be required along the project property line bordering Airport Way, and with a minimum height of 12 feet along the project property line bordering Airport Way, to provide adequate noise attenuation for on-site noise sensitive land uses within 50 feet of the centerline of the outermost travel lane of these roadway segments. This would reduce traffic noise levels at first floor outdoor activity areas to below 60 dBA CNEL, thus meeting the City's acceptable standard for residential land uses.

Table I: Predicted Traffic Noise Levels at the First Row of Outdoor Activity Areas with Varying Barrier Heights

Barrier Location	Traffic Noise Level Without Barrier, dBA CNEL	Barrier Height	Traffic Noise Level With Barrier
Airport Way			
Along property line North of French Camp Road	71.6	6'	63.1 ^a
		8'	61.6
		10'	59.7
		12'	58.0
French Camp Road			
Along property line between Ash Street and Airport Way	71.8	6'	67.1
		8'	63.1
		10'	60.8
		12'	58.9
Along property line East of Airport Way	72.0	6'	67.2
		8'	63.2
		10'	61.0
		12'	59.0

^a Traffic noise levels reductions are only at first floor receivers.

Source: LSA Associates, March 13, 2007.

Second floor balconies or decks directly exposed to these portions of French Camp Road and Airport Way would be exposed to traffic-related noise levels of up to 72.0 dBA CNEL. These levels would exceed the maximum allowable noise exposure standard from transportation related noise sources of 65 dBA L_{dn}/CNEL for residential outdoor activity areas.¹ To reduce the exterior noise level for these residential outdoor activity areas to acceptable levels, a 6-foot-high sound barrier on these balconies or decks shall be constructed so as to provide 5 dBA or more in noise reduction when the direct line of sight to the traffic is blocked. The sound barrier can be of wood, brick, concrete, Plexiglas, or a combination of these and must be constructed without gaps (including at the bottom); it must be of at least 1 inch thickness and have equivalent mass to that of solid wood fencing boards.

The traffic volumes along the roadways within the interior of the proposed project site would not result in long-term traffic noise levels exceeding the City's exterior or interior noise standards. Therefore, no mitigation measures would be required.

On-site Traffic Noise

¹ Stockton, City of, 2004. *Stockton Municipal Code, Chapter 16, Development Code, Table 3-7.* August.

Table J: Existing (2006) Baseline Traffic Noise Levels

Roadway Segment	ADT	Center-line to 70 CNEL (feet)	Center-line to 65 CNEL (feet)	Center-line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
Airport Way - North of Sperry Road	8,100	< 50	67	140	64.9
Airport Way - Sperry Road to Performance Drive	9,100	< 50	72	151	65.4
Airport Way - Performance Drive to French Camp Road	10,100	< 50	77	162	65.9
Airport Way - South of French Camp Road	6,900	< 50	58	125	65.3
French Camp Road - West of El Dorado Street	8,800	< 50	69	147	66.3
French Camp Road - El Dorado Street to Ash Street	7,300	< 50	61	130	65.5
French Camp Road - Ash Street to Airport Way	9,600	< 50	73	156	66.7
French Camp Road - East of Airport Way	11,100	< 50	80	172	67.3
Ash Street - East of French Camp Road	600	< 50	< 50	< 50	52.0
Ash Street - West of French Camp Road	3,900	< 50	< 50	57	60.1
Sperry Road - McKinley Avenue to Performance Drive	5,300	< 50	< 50	105	64.1
Sperry Road - Performance Drive to Airport Way	5,200	< 50	< 50	106	62.7
Arch-Airport Road - Airport Way to Quantas Lane	7,900	< 50	66	138	64.8
Arch-Airport Road - East of Quantas Lane	11,000	< 50	79	171	67.3
Performance Drive - West of Airport Way	1,700	< 50	< 50	< 50	58.6
CE Dixon Street - East of Airport Way	1,500	< 50	< 50	< 50	57.6

^a Traffic noise within 50 feet of the roadway centerline requires site-specific analysis.
Source: LSA Associates Inc., April 2007

Table K: Existing Plus Approved Projects Traffic Noise Levels

Roadway Segment	ADT	Center-line to 70 CNEL (feet)	Center-line to 65 CNEL (feet)	Center-line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
Airport Way - North of Sperry Road	14,700	< 50	98	208	67.5
Airport Way - Sperry Road to Performance Drive	16,100	< 50	104	220	67.9
Airport Way - Performance Drive to French Camp Road	15,600	< 50	101	216	67.7
Airport Way - South of French Camp Road	12,200	< 50	85	183	67.7
French Camp Road - West of El Dorado Street	12,800	< 50	88	189	68.0
French Camp Road - El Dorado Street to Ash Street	11,800	< 50	83	179	67.6
French Camp Road - Ash Street to Airport Way	17,800	51	109	235	69.4
French Camp Road - East of Airport Way	17,800	51	109	235	69.4
Ash Street - East of French Camp Road	1,300	< 50	< 50	< 50	55.3
Ash Street - West of French Camp Road	9,600	< 50	< 50	103	64.0
Sperry Road - McKinley Avenue to Performance Drive	9,300	< 50	71	153	66.6
Sperry Road - Performance Drive to Airport Way	7,900	< 50	67	138	64.6
Arch-Airport Road - Airport Way to Quantas Lane	12,900	< 50	90	190	66.9
Arch-Airport Road - East of Quantas Lane	16,600	< 50	104	225	69.1
Performance Drive - West of Airport Way	3,200	< 50	< 50	76	61.4
CE Dixon Street - East of Airport Way	3,200	< 50	< 50	77	60.9

^a Traffic noise within 50 feet of the roadway centerline requires site-specific analysis.
Source: LSA Associates Inc., April 2007

Table L: Existing Plus Approved Projects Plus Project Traffic Noise Levels

Roadway Segment	ADT	Center line to 70 CNEL (feet)	Center line to 65 CNEL (feet)	Center line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane	Increase from Baseline Conditions
Airport Way - North of Sperry Road	18,400	55	113	241	68.5	1.0
Airport Way - Sperry Road to Performance Drive	26,700	69	144	308	70.1	2.2
Airport Way - Performance Drive to French Camp Road	28,600	72	151	323	70.4	2.7
Airport Way - South of French Camp Road	16,000	< 50	102	219	68.9	1.2
French Camp Road - West of El Dorado Street	19,700	55	117	252	69.8	1.8
French Camp Road - El Dorado Street to Ash Street	17,400	< 50	108	232	69.3	1.7
French Camp Road - Ash Street to Airport Way	30,000	72	155	333	71.7	2.3
French Camp Road - East of Airport Way	25,100	64	137	296	70.9	1.5
Ash Street - East of French Camp Road	1,300	< 50	< 50	< 50	55.3	0.0
Ash Street - West of French Camp Road	19,100	< 50	76	163	67.0	3.0
Sperry Road - McKinley Avenue to Performance Drive	15,000	< 50	98	210	68.6	2.0
Sperry Road - Performance Drive to Airport Way	13,700	< 50	94	198	67.0	2.4
Arch-Airport Road - Airport Way to Quantas Lane	22,100	61	127	272	69.3	2.4
Arch-Airport Road - East of Quantas Lane	23,600	61	132	284	70.6	1.5
Performance Drive - West of Airport Way	4,600	< 50	< 50	96	62.9	1.5
CE Dixon Street - East of Airport Way	3,200	< 50	< 50	77	60.9	0.0

^a Traffic noise within 50 feet of the roadway centerline requires site-specific analysis.
Source: LSA Associates Inc., April 2007

Table M: Future (2025) Traffic Noise Levels

Roadway Segment	ADT	Center-line to 70 CNEL (feet)	Center-line to 65 CNEL (feet)	Center-line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
Airport Way - North of Sperry Road	24,800	66	137	293	69.8
Airport Way - Sperry Road to Performance Drive	24,500	65	136	291	69.7
Airport Way - Performance Drive to French Camp Road	19,100	56	116	247	68.6
Airport Way - South of French Camp Road	18,000	54	111	237	68.4
French Camp Road - West of El Dorado Street	14,100	< 50	94	201	68.4
French Camp Road - El Dorado Street to Ash Street	14,900	< 50	97	209	68.6
French Camp Road - Ash Street to Airport Way	16,500	< 50	104	224	69.1
French Camp Road - East of Airport Way	18,400	52	112	240	69.5
Ash Street - East of French Camp Road	2,500	< 50	< 50	< 50	58.2
Ash Street - West of French Camp Road	7,900	< 50	< 50	91	63.2
Sperry Road - McKinley Avenue to Performance Drive	8,900	< 50	69	148	66.4

Sperry Road - Performance Drive to Airport Way	48,700	125	257	548	72.4
Arch-Airport Road - Airport Way to Quantas Lane	50,300	128	263	560	72.5
Arch-Airport Road - East of Quantas Lane	51,100	129	265	566	72.6
Performance Drive - West of Airport Way	8,700	< 50	70	147	65.2
CE Dixon Street - East of Airport Way	12,600	< 50	88	187	66.8

^a Traffic noise within 50 feet of the roadway centerline requires site-specific analysis.
Source: LSA Associates Inc., April 2007

Table N: Future (2025) Plus Project Traffic Noise Levels

Roadway Segment	ADT	Center line to 70 CNEL (feet)	Center line to 65 CNEL (feet)	Center line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane	Increase from Baseline Conditions
Airport Way - North of Sperry Road	28,100	71	149	319	70.3	0.5
Airport Way - Sperry Road to Performance Drive	31,100	76	159	341	70.7	1.0
Airport Way - Performance Drive to French Camp Road	32,300	77	163	350	70.9	2.3
Airport Way - South of French Camp Road	27,200	70	146	312	70.2	1.8
French Camp Road - West of El Dorado Street	15,700	< 50	101	216	68.8	0.4
French Camp Road - El Dorado Street to Ash Street	17,000	< 50	106	228	69.2	0.6
French Camp Road - Ash Street to Airport Way	23,700	62	132	285	70.6	1.5
French Camp Road - East of Airport Way	24,900	64	137	294	70.8	1.3
Ash Street - East of French Camp Road	2,500	< 50	< 50	< 50	58.2	0.0
Ash Street - West of French Camp Road	12,300	< 50	57	122	65.1	1.9
Sperry Road - McKinley Avenue to Performance Drive	9,800	< 50	74	158	66.8	0.4
Sperry Road - Performance Drive to Airport Way	54,000	133	275	587	72.8	0.4
Arch-Airport Road - Airport Way to Quantas Lane	56,600	137	284	606	73.0	0.5
Arch-Airport Road - East of Quantas Lane	59,200	141	292	624	73.2	0.6
Performance Drive - West of Airport Way	8,700	< 50	70	147	65.2	0.0
CE Dixon Street - East of Airport Way	12,600	< 50	88	187	66.8	0.0

^a Traffic noise within 50 feet of the roadway centerline requires site-specific analysis.
Source: LSA Associates Inc., April 2007

Table O: Future (2035) Traffic Noise Levels

Roadway Segment	ADT	Center-line to 70 CNEL (feet)	Center-line to 65 CNEL (feet)	Center-line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
Airport Way - North of Sperry Road	32,400	81	165	351	70.1
Airport Way - Sperry Road to Performance Drive	37,300	88	181	385	70.7
Airport Way - Performance Drive to French Camp Road	24,100	64	135	288	69.6
Airport Way - South of French Camp Road	31,600	76	161	345	70.8
French Camp Road - West of El Dorado Street	17,300	73	134	278	67.9
French Camp Road - El Dorado Street to Ash Street	25,600	88	171	359	69.6

French Camp Road - Ash Street to Airport Way	31,100	97	193	408	70.4
French Camp Road - East of Airport Way	37,200	107	216	459	71.2
Ash Street - East of French Camp Road	4,200	< 50	< 50	91	62.0
Ash Street - West of French Camp Road	18,500	55	113	242	68.5
Sperry Road - McKinley Avenue to Performance Drive	52,000	130	269	573	72.7
Sperry Road - Performance Drive to Airport Way	50,300	128	263	560	72.5
Arch-Airport Road - Airport Way to Quantas Lane	50,000	127	262	558	72.5
Arch-Airport Road - East of Quantas Lane	45,000	119	244	520	72.0
Performance Drive - West of Airport Way	11,900	< 50	85	180	66.6
CE Dixon Street - East of Airport Way	20,900	59	123	262	69.0

^a Traffic noise within 50 feet of the roadway centerline requires site-specific analysis.
Source: LSA Associates Inc., April 2007

Table P: Future (2035) Plus Project Traffic Noise Levels

Roadway Segment	ADT	Center line to 70 CNEL (feet)	Center line to 65 CNEL (feet)	Center line to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane	Increase from Baseline Conditions
Airport Way - North of Sperry Road	37,300	88	181	385	70.7	0.6
Airport Way - Sperry Road to Performance Drive	44,100	97	202	430	71.4	0.7
Airport Way - Performance Drive to French Camp Road	37,900	86	181	389	71.6	2.0
Airport Way - South of French Camp Road	37,200	85	179	384	71.5	0.7
French Camp Road - West of El Dorado Street	19,000	76	142	295	68.3	0.4
French Camp Road - El Dorado Street to Ash Street	28,000	92	180	380	70.0	0.4
French Camp Road - Ash Street to Airport Way	42,900	116	237	504	71.8	1.4
French Camp Road - East of Airport Way	44,300	118	242	515	72.0	0.8
Ash Street - East of French Camp Road	4,200	< 50	< 50	91	62.0	0.0
Ash Street - West of French Camp Road	29,300	73	153	328	70.5	2.0
Sperry Road - McKinley Avenue to Performance Drive	56,200	136	282	603	73.0	0.3
Sperry Road - Performance Drive to Airport Way	54,500	134	277	591	72.9	0.4
Arch-Airport Road - Airport Way to Quantas Lane	57,300	138	286	611	73.1	0.6
Arch-Airport Road - East of Quantas Lane	51,600	129	267	570	72.6	0.6
Performance Drive - West of Airport Way	12,800	< 50	89	189	66.9	0.3
CE Dixon Street - East of Airport Way	24,100	64	135	288	69.6	0.6

^a Traffic noise within 50 feet of the roadway centerline requires site-specific analysis.
Source: LSA Associates Inc., April 2007

Train Noise Impact

There are two existing Union Pacific Railroad lines within the vicinity of the proposed project site and a third Union Pacific Railroad line located approximately 1,600 feet west of the project site. The centerlines of the Union Pacific Railroad tracks within the project area are approximately 100 feet from the proposed residential land use areas. The rail line along the western edge of the project site is currently used by 30 to 40 trains per day. The rail line located within the project area is an access line

that is currently used by 3 to 4 trains per day. However, at any time the railroad can increase the number of trains on either track. Therefore, the future train activity along these railroad tracks is unknown. The potential train noise impact was estimated using the Federal Transit Administration's (FTA) *Transit Noise Impact Assessment* (April 1995). Table 5-7 of this document lists the estimated noise exposures at various distances from a railroad line. At a distance of 100 feet, the FTA estimates that a railroad line generates a noise level of 65 dBA L_{dn} . This noise level exceeds the 60 dBA L_{dn} (or CNEL) standard established by the City. Therefore mitigation measures are required. At a distance of 1,600 feet the rail noise from the third railroad line would be below 45 dBA L_{dn} . Therefore, no mitigation measures would be required.

Based on the 100 foot distance to the 65 dBA L_{dn} contour, residences within 316 feet of a railroad centerline will be exposed to noise levels exceeding the 60 dBA L_{dn} noise standard. Residential homes with outdoor active use areas exposed to the train noise levels of 60 to 65 dBA L_{dn} would require a freestanding sound wall or sound wall and berm combination with an effective height of six feet above the railroad grade. This six foot sound wall or sound wall/berm combination would provide 5 dBA or more in noise reduction.

Residential units within 631 feet of a railroad centerline would be exposed to train noise levels exceeding 57 dBA L_{dn} . With windows or doors open, interior noise levels at these residences would exceed 45 dBA L_{dn} (i.e., 57 dBA - 12 dBA = 45 dBA). Therefore, air-conditioning systems, a form of mechanical ventilation, would be required to ensure that windows can remain closed for a prolonged period of time.

Train Vibration Impact

Based on Table 9-2 of the FTA's *Transit Noise Impact Assessment* (April 1995) homes within 200 feet of railroad tracks would potentially be exposed to vibration impacts. Mitigation measures, if necessary, shall be determined based on the final site plans and a geotechnical analysis.

Airport Noise Impact

The Stockton Metropolitan Airport is located adjacent to the project site to the North. Based on the *CNEL Contours for the 1994-95 Operations* the eastern most portion of the proposed project site, which is to be developed with industrial facilities, is located within the 60 and 65 dBA CNEL aircraft noise contours. The proposed residential, school, and park areas are located outside of the 60 dBA CNEL noise contour.

Stationary Noise Impact

Potential long-term noise impacts would be associated with stationary sources within the proposed commercial and industrial land uses. These activities are potential point sources of noise that could affect on-site and off-site noise-sensitive receptors such as residences. On-site noise-producing activities include traffic, doors slamming, vehicle engine start-ups, truck loading and unloading activities, HVAC equipment, and people conversing in a parking lot.

As noise spreads from a source it loses energy; so the farther the noise receiver is from the noise source, the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate, or be reduced, resulting in a 6 dBA reduction in the noise level for each doubling of

distance from a single-point source of noise, such as a car door slam, to the noise-sensitive receptor of concern. Although individual activities may generate relatively high and intermittent noise, when added to the typically lower ambient noise and averaged over a longer period of time, the cumulative noise level would be much lower and would be considered a less than significant impact.

Truck Delivery Loading/Unloading Noise. During loading and unloading activities, noise would be generated by the trucks' diesel engines, exhaust systems, and brakes during low-speed gear shifting; braking activities; backing up toward the docks; dropping down the dock ramps; and while maneuvering away from the docks. These peak-event noise sources are measured as a single event from a point source.

Based on similar projects and LSA's experience with the analysis of periodic truck loading and unloading activities, peak noise levels from the proposed on-site truck loading and unloading activities would range up to 75 dBA L_{max} when measured at 50 feet from the point source. Therefore, sensitive land uses located within 160 feet of the loading and unloading activities would be potentially exposed to noise levels exceeding the City's 65 dBA L_{max} nighttime noise threshold. Mitigation measures such as constructing a 10 foot barrier adjacent to the loading/unloading area or limiting deliveries to the hours of 7:00 a.m. and 10:00 p.m. shall be required.

Parking Lot Noise. Proposed parking facilities are located throughout the proposed development. Noise associated with parking lot activities include on-site vehicular traffic, car door slamming, car alarm, vehicle engine start-up, tire squealing, and people conversing.

Representative parking activities, such as employees or customers conversing and slamming doors, would generate approximately 60 dBA L_{max} at 50 feet. This level of noise is much lower than that of the truck delivery and loading/unloading activities. Parking lot noise is not anticipated to be a significant noise issue with respect to residences within or adjacent to the project site.

HVAC Equipment Noise. HVAC equipment is typically located on the building rooftop. HVAC equipment generates a sound pressure level (SPL) of up to 95 dBA at one foot. The roof edge creates a natural noise barrier that reduces noise levels from these rooftop HVAC units by 8 dBA or more. It is assumed that HVAC equipment would operate continuously through the day, evening, and night. The closest residence to the HVAC equipment is approximately 100 feet and would experience a noise level of 55 dBA L_{max} . This noise level would not exceed the City's nighttime maximum noise level of 65 dBA L_{max} . Therefore, noise generated from HVAC equipment associated with commercial uses would not have a significant noise impact. No mitigation measures are required.

MITIGATION MEASURES

Construction Impacts

Construction will be limited to the hours of 7:00 a.m. to 10:00 p.m. on weekdays and weekends in accordance with the City's Municipal Code.

The following measures can be implemented to reduce potential construction noise impacts on nearby sensitive receptors:

- During all site excavation and grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest to the project site.
- The construction contractor shall locate equipment staging in areas that will create the greatest practical distance between construction-related noise sources and noise-sensitive receptors nearest to the project site during all project construction.
- Construction contractors shall provide the Building Division a name and phone number of a contact person in the event that noise levels become disruptive. The name and phone number shall also be posted on site, informing the public who to contact. Adjacent residents within 100 feet of the property shall also be notified prior to construction activities and given the contact information. The Building Division shall monitor compliance.

On-site Traffic Noise

The following mitigation measures shall be required to reduce the on-site traffic noise impacts:

The following mitigation measures shall be required to reduce the on-site traffic noise impacts:

- A form of mechanical ventilation such as air conditioning systems shall be required for all residences in the following areas within the project site to ensure that windows can remain closed for a prolonged period of time:

- all residences located within approximately 500 feet of French Camp Road; and
- all residences located within approximately 400 feet of Airport Way.

- All second floor residential exterior facades that are within 150 feet of and directly exposed to French Camp Road or that are within 100 feet of and directly exposed to Airport Way shall be constructed to guarantee a minimum STC-30 rating (including windows, doors and walls). Quality control must be exercised in construction to ensure all air-gaps and penetrations of the building shell are controlled and sealed.

- A sound barrier with a minimum height of 10 feet is required along the project property line bordering Airport Way to provide noise attenuation for noise sensitive land uses within the proposed project site.

- A sound barrier with a minimum height of 12 feet is required along the project property line bordering French Camp Road to provide noise attenuation for noise sensitive land uses within the proposed project site.

- Second floor balconies or decks shall not be permitted on residential facades within the project that are directly exposed to and within 150 feet of French Camp Road or that are directly exposed to and within 100 feet of Airport Way.

Train Noise Impact

The following mitigation measures shall be required to reduce the on-site train noise impacts:

- A six-foot-high sound wall or sound wall/berm combination shall be constructed to protect sensitive exterior land uses located within 316 feet of the railroad right-of-way.
- Mechanical ventilation shall be required for all residences located within 631 feet of the railroad right-of-way.

Train Vibration Impact

A site specific vibration impact analysis shall be required prior to the construction of any sensitive structures within 200 feet of a railroad right-of-way. Mitigation measures, if necessary, shall be determined based on the final site plans and a geotechnical analysis.

Stationary Source Noise Impacts

If there are sensitive land uses, such as the proposed residences, school, and parks, within 200 feet of a proposed loading/unloading area one of the following measures shall be implemented:

- A ten-foot-high sound barrier shall be constructed adjacent to the loading/unloading area, or
- Loading/unloading activities shall be restricted to the hours of 7:00 a.m. and 10:00 p.m. daily.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of the identified mitigation measures, potential short-term and long-term noise impacts would be reduced to below a level of significance.

REFERENCES

Bolt, Beranek & Newman, Noise Control for Buildings and Manufacturing Plants, 1987.

City of Stockton, Municipal Code.

City of Stockton, Noise Element of the General Plan, 1998.

Federal Highway Administration, Highway Traffic Noise Prediction Model, FHWA RD-77-108, 1977.

Fehr & Peers Transportation Consultants, *Traffic Impact Analysis*, August 2006.

U.S. Department of Transportation, Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, April 1995.

APPENDIX A

FHWA TRAFFIC NOISE MODEL PRINTOUTS

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Sperry Road to Performance Drive
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.40

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
0.0	72.0	151.2	323.9

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - North of Sperry Road
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
0.0	67.0	140.1	299.8

TABLE Existing-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - South of French Camp Road
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 6900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT) : 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	58.4	125.2	269.4	

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Performance Drive to French Camp Road
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 10100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT) : 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	76.9	162.0	347.2	

TABLE Existing-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - El Dorado Street to Ash Street
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	60.6	129.9	279.7
0.0			

TABLE Existing-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - West of El Dorado Street
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	68.5	147.2	316.8
0.0			

TABLE Existing-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - East of Airport Way
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	79.9	171.8	369.8	

TABLE Existing-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - Ash Street to Airport Way
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	72.6	155.9	335.7	

TABLE Existing-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - West of French Camp Road
NOTES: - Existing

* * ASSUMPTIONS * *
AVERAGE DAILY TRAFFIC: 3900 SPEED (MPH): 35 GRADE: .5
TRAFFIC DISTRIBUTION PERCENTAGES
DAY EVENING NIGHT

AUTOS 75.51 12.57 9.34
M-TRUCKS 1.56 0.09 0.19
H-TRUCKS 0.64 0.02 0.08
ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.10
DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL
70 CNEL 60 CNEL 55 CNEL

0.0 0.0 56.9 122.0

TABLE Existing-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - East of French Camp Road
NOTES: - Existing

* * ASSUMPTIONS * *
AVERAGE DAILY TRAFFIC: 600 SPEED (MPH): 35 GRADE: .5
TRAFFIC DISTRIBUTION PERCENTAGES
DAY EVENING NIGHT

AUTOS 75.51 12.57 9.34
M-TRUCKS 1.56 0.09 0.19
H-TRUCKS 0.64 0.02 0.08
ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 51.98
DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL
70 CNEL 60 CNEL 55 CNEL

0.0 0.0 0.0

TABLE Existing-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - Performance Drive to Airport Way
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 21 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	0.0	105.5	223.7
0.0	0.0	105.5	223.7

TABLE Existing-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - McKinley Avenue to Performance Drive
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 5300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.13

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	0.0	105.1	226.0
0.0	0.0	105.1	226.0

TABLE Existing-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - East of Quantas Lane
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	79.4	170.7	367.6	

TABLE Existing-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - Airport Way to Quantas Lane
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.79

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	65.9	137.8	294.9	

TABLE Existing-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: CE Dixon Street - East of Airport Way
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 57.57

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0	98.9

TABLE Existing-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Performance Drive - West of Airport Way
NOTES: - Existing

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0	106.5

TABLE Existing Plus Approved Projects-02
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
 ROADWAY SEGMENT: Airport Way - Sperry Road to Performance Drive
 NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (db) = 67.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
0.0	103.6	220.4	473.5

TABLE Existing Plus Approved Projects-01
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
 ROADWAY SEGMENT: Airport Way - North of Sperry Road
 NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (db) = 67.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
0.0	97.6	207.5	445.7

TABLE Existing Plus Approved Projects-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - South of French Camp Road
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.64	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (db) = 67.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	60 CNEL	55 CNEL
70	85.1	182.9
0.0		393.8

TABLE Existing Plus Approved Projects-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Performance Drive to French Camp Road
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.64	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (db) = 67.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	60 CNEL	55 CNEL
70	101.5	215.8
0.0		463.6

TABLE Existing Plus Approved Projects-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - El Dorado Street to Ash Street
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT) : 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	83.2	178.9		385.2

TABLE Existing Plus Approved Projects-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - West of El Dorado Street
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT) : 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	87.8	188.8		406.6

TABLE Existing Plus Approved Projects-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - East of Airport Way
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70	109.3	235.2	506.5
51.0			

TABLE Existing Plus Approved Projects-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - Ash Street to Airport Way
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.39

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70	109.3	235.2	506.5
51.0			

TABLE Existing Plus Approved Projects-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - West of French Camp Road
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9600 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 64.02

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	103.3	222.2	

TABLE Existing Plus Approved Projects-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - East of French Camp Road
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 1300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 55.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	58.9	

TABLE Existing Plus Approved Projects-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - Performance Drive to Airport Way
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *			
AVERAGE DAILY TRAFFIC:	7900	SPEED (MPH):	45
		GRADE:	.5
TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	-----	NIGHT	-----
AUTOS	75.51		9.34
M-TRUCKS	1.56		0.19
H-TRUCKS	0.64		0.08
ACTIVE HALF-WIDTH (FT):	21	SITE CHARACTERISTICS:	SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) =	64.56
DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	
70 CNEL	65 CNEL
60 CNEL	55 CNEL
66.8	138.2
0.0	295.0

TABLE Existing Plus Approved Projects-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - McKinley Avenue to Performance Drive
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *			
AVERAGE DAILY TRAFFIC:	9300	SPEED (MPH):	45
		GRADE:	.5
TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	-----	NIGHT	-----
AUTOS	75.51		9.34
M-TRUCKS	1.56		0.19
H-TRUCKS	0.64		0.08
ACTIVE HALF-WIDTH (FT):	6	SITE CHARACTERISTICS:	SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) =	66.57
DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	
70 CNEL	65 CNEL
60 CNEL	55 CNEL
71.1	152.7
0.0	328.6

TABLE Existing Plus Approved Projects-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - East of Quantas Lane
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.09

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	104.4	224.5	483.5
0.0			

TABLE Existing Plus Approved Projects-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - Airport Way to Quantas Lane
NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	89.8	190.3	408.6
0.0			

TABLE Existing Plus Approved Projects-16
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
 ROADWAY SEGMENT: CE Dixon Street - East of Airport Way
 NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL	162.2
0.0	0.0	77.0	162.2	

TABLE Existing Plus Approved Projects-15
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
 ROADWAY SEGMENT: Performance Drive - West of Airport Way
 NOTES: - Existing Plus Approved Projects

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 61.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL	161.7
0.0	0.0	75.8	161.7	

TABLE
Existing Plus Approved Projects Plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Sperry Road to Performance Drive
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *			
AVERAGE DAILY TRAFFIC:	26700	SPEED (MPH):	45
		GRADE:	.5
TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	-----	NIGHT	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08
ACTIVE HALF-WIDTH (FT): 18			
SITE CHARACTERISTICS: SOFT			

* * CALCULATED NOISE LEVELS * *			
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (AB) = 70.07			
DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL
	-----	-----	-----
	68.7	144.0	308.2
			663.0

TABLE
Existing Plus Approved Projects Plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - North of Sperry Road
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *			
AVERAGE DAILY TRAFFIC:	18400	SPEED (MPH):	45
		GRADE:	.5

TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	-----	NIGHT	-----
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08
ACTIVE HALF-WIDTH (FT): 18			
SITE CHARACTERISTICS: SOFT			

* * CALCULATED NOISE LEVELS * *			
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (AB) = 68.46			
DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL
	-----	-----	-----
	54.8	112.9	240.7
			517.4

TABLE
Existing Plus Approved Projects Plus Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - South of French Camp Road
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENTING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	CNEL
70 CNEL	65 CNEL
60 CNEL	60 CNEL
55 CNEL	55 CNEL
47.1.8	47.1.8
101.9	219.1
0.0	0.0

TABLE
Existing Plus Approved Projects Plus Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Performance Drive to French Camp Road
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENTING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.37

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	CNEL
70 CNEL	65 CNEL
60 CNEL	60 CNEL
55 CNEL	55 CNEL
694.1	694.1
150.6	322.6
71.7	71.7

TABLE
Existing Plus Approved Projects Plus Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - El Dorado Street to Ash Street
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.29

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	107.7	231.7	499.0	

TABLE
Existing Plus Approved Projects Plus Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - West of El Dorado Street
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
54.5	116.9	251.6	541.9	

TABLE
Existing Plus Approved Projects Plus Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - East of Airport Way
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *			
AVERAGE DAILY TRAFFIC:	25100	SPEED (MPH):	45
		GRADE:	.5
TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENTING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08
ACTIVE HALF-WIDTH (FT): 6			
SITE CHARACTERISTICS: SOFT			

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (db) = 70.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL	636.9
	64.0	137.4	295.7		

TABLE
Existing Plus Approved Projects Plus Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - Ash Street to Airport Way
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *			
AVERAGE DAILY TRAFFIC:	30000	SPEED (MPH):	45
		GRADE:	.5
TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENTING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08
ACTIVE HALF-WIDTH (FT): 6			
SITE CHARACTERISTICS: SOFT			

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (db) = 71.66

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL	717.2
	72.0	154.7	333.0		

TABLE
Existing Plus Approved Projects Plus Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - West of French Camp Road
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *			
AVERAGE DAILY TRAFFIC:	19100	SPEED (MPH):	35
		GRADE:	.5
TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08
ACTIVE HALF-WIDTH (FT): 6			
SITE CHARACTERISTICS: SOFT			

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	75.9	163.2	351.3	

TABLE
Existing Plus Approved Projects Plus Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - East of French Camp Road
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *			
AVERAGE DAILY TRAFFIC:	1300	SPEED (MPH):	35
		GRADE:	.5
TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08
ACTIVE HALF-WIDTH (FT): 6			
SITE CHARACTERISTICS: SOFT			

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 55.33

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	58.9	

TABLE
Existing Plus Approved Projects Plus Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - Performance Drive to Airport Way
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *			
AVERAGE DAILY TRAFFIC:	13700	SPEED (MPH):	45
		GRADE:	.5
TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08
ACTIVE HALF-WIDTH (FT): 21			
SITE CHARACTERISTICS: SOFT			

* * CALCULATED NOISE LEVELS * *

CNELL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	93.9	198.3	425.3
0.0			

TABLE
Existing Plus Approved Projects Plus Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - McKinley Avenue to Performance Drive
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *			
AVERAGE DAILY TRAFFIC:	15000	SPEED (MPH):	45
		GRADE:	.5
TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08
ACTIVE HALF-WIDTH (FT): 6			
SITE CHARACTERISTICS: SOFT			

* * CALCULATED NOISE LEVELS * *

CNELL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.64

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	97.6	209.9	452.0
0.0			

TABLE
Existing Plus Approved Projects Plus Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - East of Quantas Lane
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNWL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (db) = 70.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNWL	65 CNWL	60 CNWL	55 CNWL
70 CNWL	131.9	283.8	611.2
61.5			

TABLE
Existing Plus Approved Projects Plus Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - Airport Way to Quantas Lane
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNWL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (db) = 69.25

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNWL	65 CNWL	60 CNWL	55 CNWL
70 CNWL	127.2	271.8	584.5
61.2			

TABLE
Existing Plus Approved Projects Plus Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: CE Dixon Street - East of Airport Way
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 3200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 60.86

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	0.0	0.0	77.0
0.0			162.2

TABLE
Existing Plus Approved Projects Plus Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Performance Drive - West of Airport Way
NOTES: - Existing Plus Approved Projects Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 12 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.93

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	0.0	0.0	96.1
0.0			205.8

TABLE Future 2025 without Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Sperry Road to Performance Drive
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.70

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
70	65.2	136.1	291.1
-----	-----	-----	-----
60	65.2	136.1	291.1
-----	-----	-----	-----
55	65.2	136.1	291.1
-----	-----	-----	-----
50	65.2	136.1	291.1

TABLE Future 2025 without Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - North of Sperry Road
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.75

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
70	65.6	137.2	293.5
-----	-----	-----	-----
60	65.6	137.2	293.5
-----	-----	-----	-----
55	65.6	137.2	293.5
-----	-----	-----	-----
50	65.6	137.2	293.5

TABLE Future 2025 without Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - South of French Camp Road
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.36

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70	111.3	237.2	509.9
54.1			

TABLE Future 2025 without Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Performance Drive to French Camp Road
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70	115.7	246.8	530.4
56.0			

TABLE Future 2025 without Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - El Dorado Street to Ash Street
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	97.2	209.0	449.9
0.0			

TABLE Future 2025 without Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - West of El Dorado Street
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 14100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.38

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	93.7	201.4	433.7
0.0			

TABLE Future 2025 without Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - East of Airport Way
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----	-----
52.2	111.8	240.4	517.8	

TABLE Future 2025 without Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - Ash Street to Airport Way
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 16500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----	-----
0.0	104.0	223.6	481.6	

TABLE Future 2025 without Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - West of French Camp Road
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 7900 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 63.17

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	90.7	195.1

TABLE Future 2025 without Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - East of French Camp Road
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2500 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.17

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	0.0	90.8

TABLE Future 2025 without Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - Performance Drive to Airport Way
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 48700 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.38

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
125.1	257.3	548.5	1178.7	

TABLE Future 2025 without Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - McKinley Avenue to Performance Drive
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.38

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	69.0	148.3	319.2	

TABLE Future 2025 without Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - East of Quantas Lane
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 51100 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT) : 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.59

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
128.7	265.5	566.2	1217.1	

TABLE Future 2025 without Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - Airport Way to Quantas Lane
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 50300 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT) : 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
127.5	262.8	560.4	1204.3	

TABLE Future 2025 without Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: CE Dixon Street - East of Airport Way
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	88.5	187.4	402.2
0.0			

TABLE Future 2025 without Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Performance Drive - West of Airport Way
NOTES: - Future 2025 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 8700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	70.0	146.8	314.4
0.0			

TABLE Future 2025 Plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Sperry Road to Performance Drive
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
70	75.6	159.2	341.1	733.9

TABLE Future 2025 Plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - North of Sperry Road
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.30

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
70	70.9	148.9	318.9	686.0

TABLE Future 2025 Plus Project-04
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
 ROADWAY SEGMENT: Airport Way - South of French Camp Road
 NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.16

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	145.7	312.0	671.2
69.5			

TABLE Future 2025 Plus Project-03
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
 ROADWAY SEGMENT: Airport Way - Performance Drive to French Camp Road
 NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.90

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	163.2	349.8	752.7
77.4			

TABLE Future 2025 Plus Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - El Dorado Street to Ash Street
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17000 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT) : 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNELL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.19

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNELL	70 CNELL	65 CNELL	60 CNELL	55 CNELL
0.0	106.0	228.1	491.3	

TABLE Future 2025 Plus Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - West of El Dorado Street
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 15700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT) : 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNELL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.84

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNELL	70 CNELL	65 CNELL	60 CNELL	55 CNELL
0.0	100.6	216.4	465.9	

TABLE Future 2025 Plus Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - East of Airport Way
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT) : 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.85

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	136.7	294.1	633.5
	63.7		

TABLE Future 2025 Plus Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - Ash Street to Airport Way
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT) : 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.63

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	132.2	284.6	613.0
	61.6		

TABLE Future 2025 Plus Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - West of French Camp Road
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12300 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.09

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	56.8	121.8	262.0	

TABLE Future 2025 Plus Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - East of French Camp Road
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 2500 SPEED (MPH): 35 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 58.17

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	0.0	0.0	90.8	

TABLE Future 2025 Plus Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - Performance Drive to Airport Way
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 54000 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----	-----
133.1	275.2	587.4	1262.6	

TABLE Future 2025 Plus Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - McKinley Avenue to Performance Drive
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 9800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 6 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.80

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----	-----
0.0	73.6	158.1	340.3	

TABLE Future 2025 Plus Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - East of Quantas Lane
NOTES: - Future 2025 Plus Project

*** ASSUMPTIONS ***
AVERAGE DAILY TRAFFIC: 59200 SPEED (MPH): 50 GRADE: .5
TRAFFIC DISTRIBUTION PERCENTAGES
DAY EVENING NIGHT
AUTOS 75.51 12.57 9.34
M-TRUCKS 1.56 0.09 0.19
H-TRUCKS 0.64 0.02 0.08
ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

*** CALCULATED NOISE LEVELS ***
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.22
DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL
70 CNEL 60 CNEL 55 CNEL

140.7 292.2 624.3 1342.3

TABLE Future 2025 Plus Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - Airport Way to Quantas Lane
NOTES: - Future 2025 Plus Project

*** ASSUMPTIONS ***
AVERAGE DAILY TRAFFIC: 56600 SPEED (MPH): 50 GRADE: .5
TRAFFIC DISTRIBUTION PERCENTAGES
DAY EVENING NIGHT
AUTOS 75.51 12.57 9.34
M-TRUCKS 1.56 0.09 0.19
H-TRUCKS 0.64 0.02 0.08
ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

*** CALCULATED NOISE LEVELS ***
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.03
DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL
70 CNEL 60 CNEL 55 CNEL

136.9 283.8 606.0 1302.8

TABLE Future 2025 Plus Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: CE Dixon Street - East of Airport Way
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *
AVERAGE DAILY TRAFFIC: 12600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES
DAY EVENING NIGHT

AUTOS 75.51 12.57 9.34
M-TRUCKS 1.56 0.09 0.19
H-TRUCKS 0.64 0.02 0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL
70 CNEL 65 CNEL 60 CNEL 55 CNEL

0.0 88.5 187.4 402.2

TABLE Future 2025 Plus Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Performance Drive - West of Airport Way
NOTES: - Future 2025 Plus Project

* * ASSUMPTIONS * *
AVERAGE DAILY TRAFFIC: 8700 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES
DAY EVENING NIGHT

AUTOS 75.51 12.57 9.34
M-TRUCKS 1.56 0.09 0.19
H-TRUCKS 0.64 0.02 0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *
CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 65.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL
70 CNEL 65 CNEL 60 CNEL 55 CNEL

0.0 70.0 146.8 314.4

TABLE Future 2035 without Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Sperry Road to Performance Drive
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT) : 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	180.8	385.2	827.8
88.0			

TABLE Future 2035 without Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - North of Sperry Road
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32400 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT) : 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	165.1	350.9	753.8
81.1			

TABLE Future 2035 without Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - South of French Camp Road
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31600 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.81

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	76.3	160.8	344.7	741.8

TABLE Future 2035 without Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Performance Drive to French Camp Road
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.63

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	64.5	134.6	287.9	619.3

TABLE Future 2035 without Project-06
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
 ROADWAY SEGMENT: French Camp Road - El Dorado Street to Ash Street
 NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25600 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.58

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	87.5	170.6	358.7	768.4

TABLE Future 2035 without Project-05
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
 ROADWAY SEGMENT: French Camp Road - West of El Dorado Street
 NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17300 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	72.5	134.1	277.5	592.3

TABLE Future 2035 without Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - East of Airport Way
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37200 SPEED (MPH) : 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT) : 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----	-----
107.1	216.3	458.9	985.2	

TABLE Future 2035 without Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - Ash Street to Airport Way
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 31100 SPEED (MPH) : 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT) : 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----	-----
97.0	192.9	407.7	874.6	

TABLE Future 2035 without Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - West of French Camp Road
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18500 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
---	---	---	---	---
70	113.3	241.6	519.3	
55.0				

TABLE Future 2035 without Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - East of French Camp Road
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.04

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
---	---	---	---	---
70	0.0	91.5	194.0	
0.0				

TABLE Future 2035 without Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - Performance Drive to Airport Way
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 50300 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70	262.8	560.4	1204.3
127.5			

TABLE Future 2035 without Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - McKinley Avenue to Performance Drive
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52000 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.66

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70	268.5	572.8	1231.3
130.1			

TABLE Future 2035 without Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - East of Quantas Lane
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 45000 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (DB) = 72.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
119.4	244.5	520.5	1118.3

TABLE Future 2035 without Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - Airport Way to Quantas Lane
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 50000 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES			
DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (DB) = 72.49

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
127.1	261.8	558.1	1199.6

TABLE Future 2035 without Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: CE Dixon Street - East of Airport Way
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 20900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.01

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL	50 CNEL
---	---	---	---	---	---
---	59.1	122.7	262.0	563.2	---

TABLE Future 2035 without Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Performance Drive - West of Airport Way
NOTES: - Future 2035 without Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.57

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL	50 CNEL
---	---	---	---	---	---
---	0.0	85.3	180.5	387.2	---

TABLE Future 2035 Plus Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - Sperry Road to Performance Drive
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.45

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	201.6	430.5	925.5
97.3			

TABLE Future 2035 Plus Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Airport Way - North of Sperry Road
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	12.57	9.34
M-TRUCKS	0.09	0.19
H-TRUCKS	0.02	0.08

ACTIVE HALF-WIDTH (FT): 30 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	180.8	385.2	827.8
88.0			

TABLE Future 2035 Plus Project-04
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
 ROADWAY SEGMENT: Airport Way - South of French Camp Road
 NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.52

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
---	---	---	---	---
---	84.7	179.1	384.2	826.9

TABLE Future 2035 Plus Project-03
 FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
 ROADWAY SEGMENT: Airport Way - Performance Drive to French Camp Road
 NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37900 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.60

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
---	---	---	---	---
---	85.7	181.3	389.0	837.3

TABLE Future 2035 Plus Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - E1 Dorado Street to Ash Street
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28000 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	180.5	380.5	815.6
91.7			

TABLE Future 2035 Plus Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - West of E1 Dorado Street
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 19000 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 68.29

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70 CNEL	141.9	295.0	630.4
75.7			

TABLE Future 2035 Plus Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - East of Airport Way
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44300 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNELL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNELL	70 CNELL	60 CNELL	55 CNELL
118.4	242.0	515.1	1106.7

TABLE Future 2035 Plus Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: French Camp Road - Ash Street to Airport Way
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 42900 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT	
AUTOS	75.51	12.57	9.34
M-TRUCKS	1.56	0.09	0.19
H-TRUCKS	0.64	0.02	0.08

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNELL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNELL	70 CNELL	60 CNELL	55 CNELL
116.2	237.1	504.3	1083.3

TABLE Future 2035 Plus Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - West of French Camp Road
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29300 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
72.8	153.0	327.8	705.3

TABLE Future 2035 Plus Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Ash Street - East of French Camp Road
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 4200 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 62.04

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
0.0	0.0	91.5	194.0

TABLE Future 2035 Plus Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - Performance Drive to Airport Way
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 54500 SPEED (MPH) : 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT) : 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.87

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
133.8	276.9	591.0	1270.4

TABLE Future 2035 Plus Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Sperry Road - McKinley Avenue to Performance Drive
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 56200 SPEED (MPH) : 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT) : 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	60 CNEL	55 CNEL
-----	-----	-----	-----
136.3	282.5	603.1	1296.7

TABLE Future 2035 Plus Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - East of Quantas Lane
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 51600 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.63

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL	50 CNEL
129.5	267.2	569.9	1225.0		

TABLE Future 2035 Plus Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Arch-Airport Road - Airport Way to Quantas Lane
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 57300 SPEED (MPH): 50 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 42 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.08

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL	50 CNEL
137.9	286.1	610.9	1313.5		

TABLE Future 2035 Plus Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: CE Dixon Street - East of Airport Way
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24100 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.63

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70	134.6	287.9	619.3
64.5			

TABLE Future 2035 Plus Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 04/12/2007
ROADWAY SEGMENT: Performance Drive - West of Airport Way
NOTES: - Future 2035 Plus Project

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 12800 SPEED (MPH): 45 GRADE: .5

TRAFFIC DISTRIBUTION PERCENTAGES

DAY	EVENING	NIGHT
AUTOS	75.51	12.57
M-TRUCKS	1.56	0.09
H-TRUCKS	0.64	0.02

ACTIVE HALF-WIDTH (FT): 18 SITE CHARACTERISTICS: SOFT

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	65 CNEL	60 CNEL	55 CNEL
70	89.3	189.4	406.4
0.0			