Appendix G
NOISE IMPACT ANALYSIS

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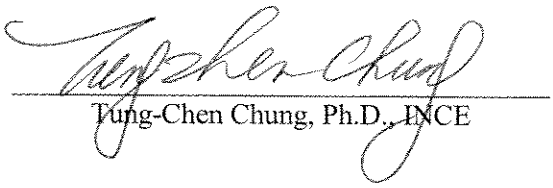
HENRY MAYO NEWHALL MEMORIAL HOSPITAL MASTER PLAN



Tung-Chen Chung, Ph.D., INCE

LSA

June 2008

NOISE IMPACT ANALYSIS

HENRO MAYO NEWHALL MEMORIAL HOSPITAL MASTER PLAN

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INTRODUCTION

This noise impact analysis has been prepared to evaluate the potential noise impacts and mitigation measures associated with the Henry Mayo Newhall Memorial Hospital Master Plan project in the City of Santa Clarita (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 project sponsors, Henry Mayo Newhall Memorial Hospital (HMNMH) and G&L Realty, propose a Master Plan to guide future development of the inpatient (hospital) and outpatient Medical Office Buildings (MOBs) and administrative medical facilities at the existing HMNMH medical campus. The Master Plan is designed to provide additional enhanced inpatient and outpatient treatment capacity. At build out, the amount of hospital and medical office space on the site (not including parking structures) would increase by 327,363 square feet (sf) to 667,434 sf, nearly double that of its current 340,071 sf. As currently proposed, the Master Plan would be implemented over an approximately 15-year period.

The HMNMH Master Plan project site encompasses approximately 30.4 acres of land generally located north of the intersection of McBean Parkway and Orchard Village Road, east of the Interstate 5 (I-5) freeway in the City of Santa Clarita. The project area is within the existing HMNMH medical campus located at 23845 McBean Parkway. Figure 1 illustrates the location and vicinity of the proposed project.

The approximately 30.4-acre site is developed with the existing HMNMH medical campus. Currently (2007/2008), the medical campus occupies 340,071 sf of building area in 11 buildings, comprising 104,160 sf of medical offices (including the 8,000 sf Foundation building), and 235,911 sf of hospital-related and support facilities floor area. The hospital-related uses include the 146,000 sf hospital, 63,800 sf Hospital Pavilion, 9,122 sf bridge, 5,286 sf hospital basement, the 8,585 sf mechanical plant, 2,384 sf facilities warehouse building, and 734 sf facilities office building. Table A presents the square footage of the various buildings, bed count, and building height, and identifies those facilities that have been approved and are under construction.

The project sponsors are proposing a long-range Master Plan for the buildout of the HMNMH medical campus. The Master Plan will include the provision of an additional 120 inpatient hospital beds, 18 additional beds in the hospital's Intensive Care Unit, nine additional beds in the existing Hospital Pavilion Building, 200,000 gross square feet of new medical office space to be used for additional outpatient, hospital administration, and associated medical uses, and an additional 1,263 parking spaces than what currently exists on the hospital campus. It is anticipated that nine new structures will be constructed on the existing 30.4-acre hospital campus built over a 15-year period, as outlined in the Development Program. Figure 2 illustrates the project's Proposed Campus Master Plan.

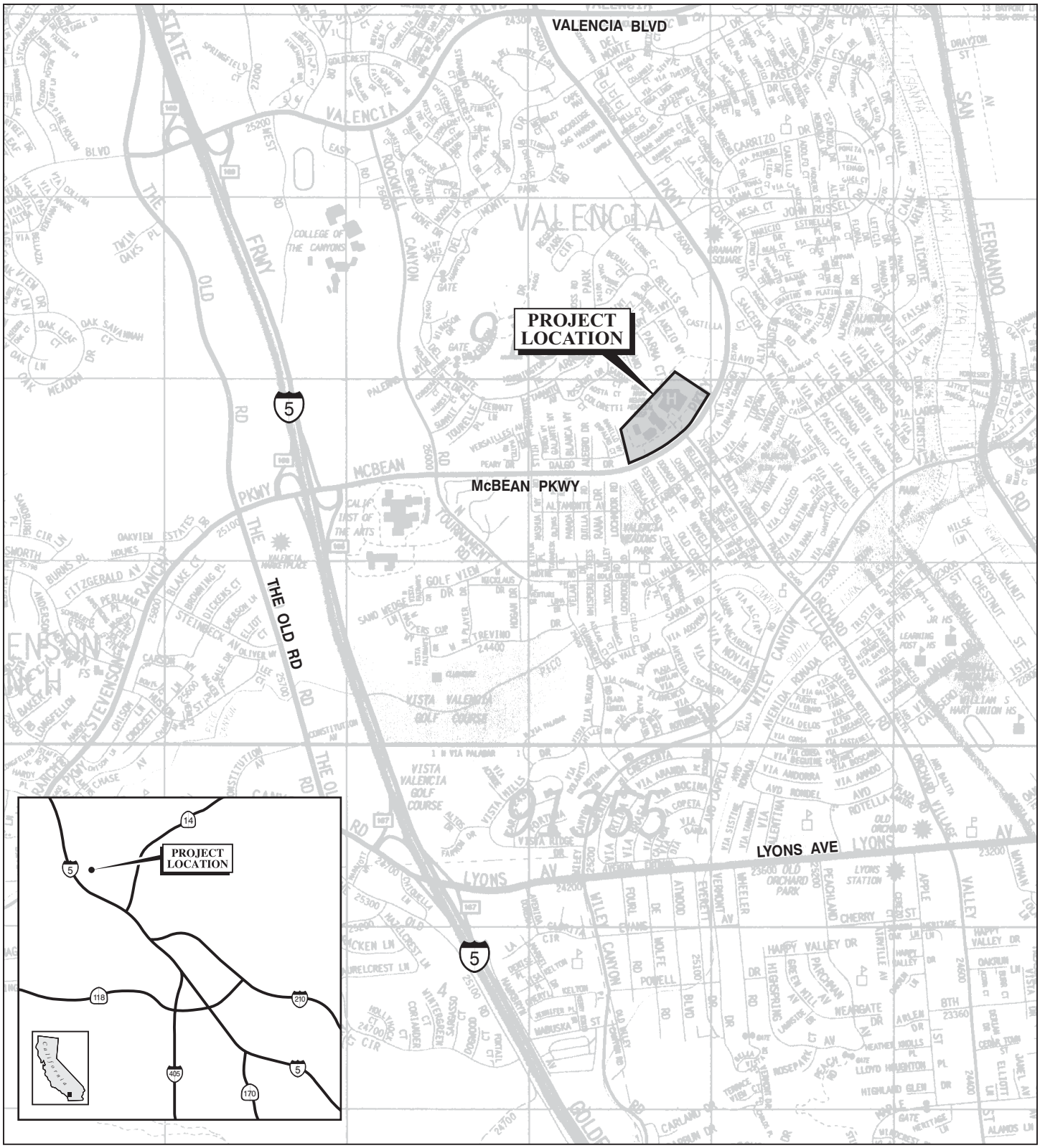

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FIGURE 1

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SOURCE: The Thomas Guide, 2005

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Newhall Hospital

Project Location

Table A: Existing Medical Campus Facilities and Uses (2007/2008)

Use	Existing Facilities (sf)	Hospital Beds	Building Height (ft)
Hospital and Related Uses			
Main Hospital[1]	146,000	121	44
Main Hospital Basement	5,286		N/A
Hospital Pavilion Building	63,800	100	35
Subtotal Hospital and Related Uses	**215,086**		
Support Facilities Uses			
Hospital Bridge (covered walkway)	9,122		N/A
Mechanical Plant	8,585		22
Facilities Building (warehouse)	2,384		
Facilities Building (office)	734		26.5
Helipad	-		N/A
Subtotal Support Facilities Uses	**20,825**		
Medical Office Buildings			
Medical Office Building A	5,302		18
Medical Office Building B	5,302		18
Medical Office Building C	5,302		18
Medical Office Building D	5,302		18
Medical Office Building E	31,040		29
Medical Office Building F/Sheila R. Veloz Breast Imaging Center	43,912		33
Foundation and Administration Office Building	8,000		12
Subtotal Medical Office Buildings	**104,160**		
Total	**340,071**	**221**	
Site Acreage	**30.4**		

Source: HMNMH Master Plan, May 2008.

[1] The total square footage for the Main Hospital includes 5,518 sf for the Emergency Department and 5,857 sf for Radiology (2,952 sf existing and 2,502 sf in construction).

ft = feet

N/A = Not applicable

sf = square feet

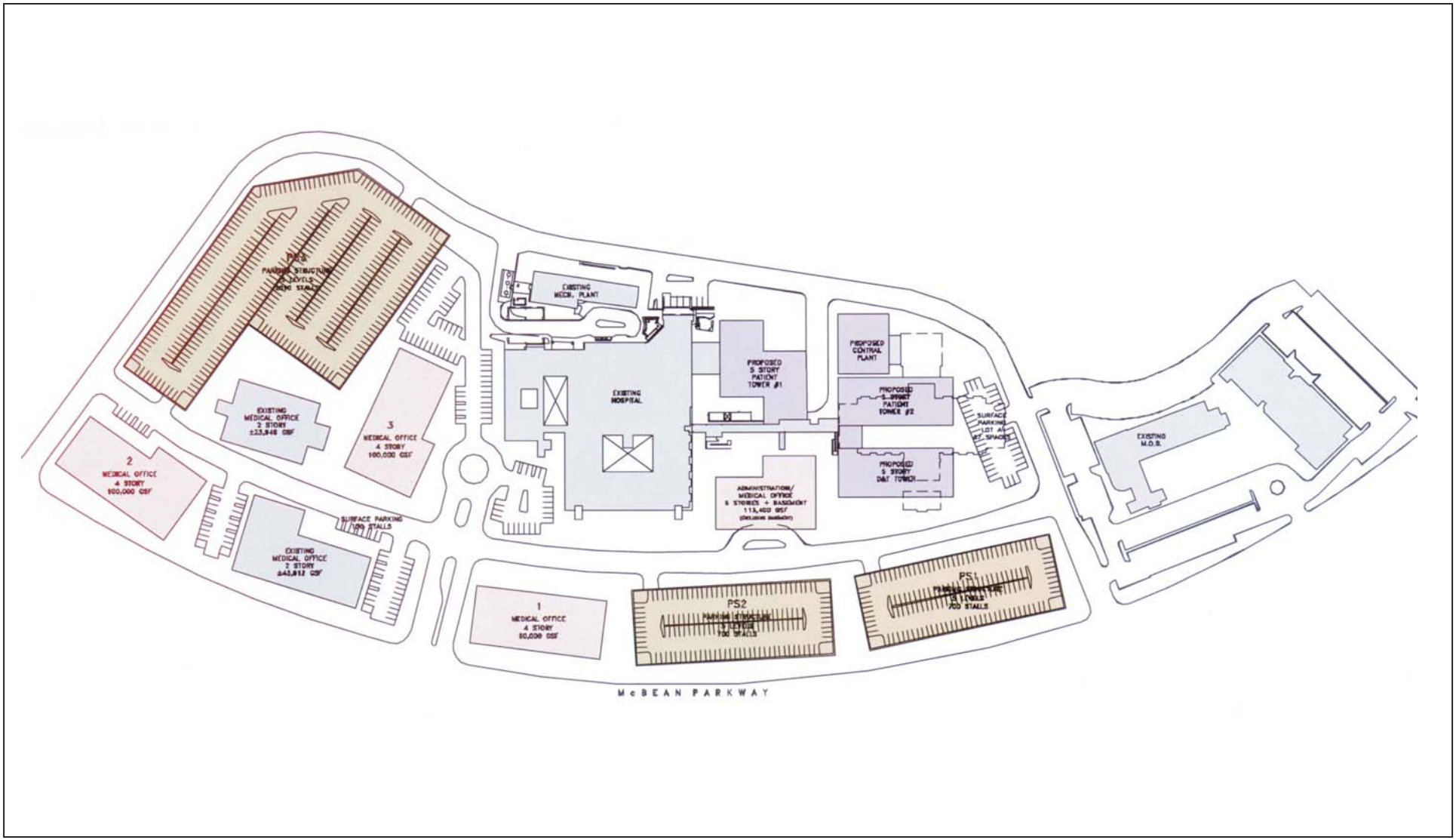

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FIGURE 2

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SOURCE: Langdon Wilson

Newhall Hospital

Master Site Plan

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Table B and Table C summarize the various facilities proposed under the HMNMH Master Plan.

Table B: Proposed Medical Campus Facilities (New Buildings)

New Buildings	Size (sf)	Building Height[1] (ft)
Inpatient Building	125,363	85
MOB-1	80,000	45.5
MOB-2	60,000	45.5
MOB-3	60,000	45.5
Central Plant	10,000	26
Total	**335,363**	

Source: HMNMH Master Plan, March 2008.
[1] Measured to the top of the parapet.
ft = feet
MOB = Medical Office Building
sf = square feet

Table C: Proposed Medical Campus Facilities (New Parking Structures)

New Parking Structures	Size (sf)	Number of Parking Spaces	Number of Levels Above Ground	Number of Levels Below Ground	Building Height[1] (ft)
Parking Structure 1	279,000	750	5	1	47
Parking Structure 2	200,334	579	5	1	47
Parking Structure 3	92,421	278	3	1	27
Parking Structure 4	85,000	316	N/A	2	Surface
Total	**656,755**	**1,917**			

Source: HMNMH Master Plan, March 2008.
[1] Measured to the top of the parapet.
ft = feet
sf = square feet

In addition to construction of the above facilities, the HMNMH Master Plan proposes to:

- Add 13 new beds in the Hospital Pavilion Building.
- Demolish the 8,000 sf Foundation building to accommodate MOB-3.
- Reconfigure surface parking to provide a total of 308 on-site spaces.
- Provide a helipad on the rooftop of both Parking Structure 1 (PS-1) and Inpatient Building A.
- Provide right-turn pockets and modify traffic signals along McBean Parkway project frontage.

- Reconfigure 9,770 sf of current administration space in the existing hospital building to accommodate 18 additional new ICU beds. The current hospital administrative functions would move to space within MOB-1.
- Export up to 93,293 cubic yards of dirt associated with subsurface excavation for Inpatient Building A and PS-1, PS-2, PS-3, and PS-4.
- Dedicate a minimum of 58 ft of public right-of-way from the centerline along the project frontage.

Helipad Proposal

The hospital is used by Los Angeles County Fire and Los Angeles County Sheriff air operations, as well as Mercy Air and other medical transport services, as a receiving location for patients flown in and out by helicopter. As part of the Master Plan, HMNMH is proposing to construct two separate above-grade helipads. The first helipad would be constructed on the roof of Parking Structure 1 to be built along McBean Parkway. With the parking structure slated to be one of the first facilities in place, this will allow the resumption of emergency air ambulance service in the most time-efficient manner. A designated elevator will be constructed to transport patients from the parking structure roof to the ground level, where they will be transported by an on-site vehicle around the ring load and into the hospital building. This near-term helipad location will be approximately 250 ft from the nearest residence across McBean Parkway.

The second helipad location will be on the roof of the Inpatient Building, which is designed to be approximately 85 ft high and approximately 240 ft from the nearest residence within the Summit community. The placement of a helipad at this location will allow for the most efficient transport to the emergency room, as the roof will be equipped with a direct elevator connection. This will be the ultimate location for the helipad

HMNMH is requesting that the initial helipad to be built on Parking Structure 1 be allowed to remain once the ultimate inpatient building helipad is constructed. This is for two reasons: to keep a secondary helipad for use during a major disaster/emergency and for use during future construction activities on the hospital campus that may temporarily preclude use of the Inpatient Building helipad due to aeronautical safety concerns. Outside of these two situations, both helipads would not be operational at the same time.

METHODOLOGY RELATED TO NOISE IMPACT ASSESSMENT

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

- Determine the noise impacts associated with short-term construction with industry-recognized noise emission levels for construction equipment and long-term operation of the proposed project with on-site noise-producing activities on adjacent noise-sensitive uses
- Determine the long-term traffic and off-site commercial use noise impacts on noise-sensitive uses on site; and
- 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 Noise Control Ordinance, as thresholds against which potential noise impacts are evaluated.

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 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 are measured on a logarithmic scale representing points on a sharply rising curve.

For example, 10 decibels (dB) 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 one 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, which refers to increases in noise levels noticeable to humans. Audible increases in noise levels generally refer to a change of 3.0 dB or greater, since this level has been found to be barely perceptible in exterior environments. The second category, potentially audible, refers to a change in the noise level between 1.0 and 3.0 dB. This range of noise levels has been found to be noticeable only in laboratory environments. The last category is changes in noise level of less than 1.0 dB, which are inaudible to the human ear. Only audible changes in existing ambient or background noise levels are considered potentially significant.

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 D lists "Definitions of Acoustical Terms;" Table E shows "Common Sound Levels and Their Noise Sources;" and Table F shows "Land Use Compatibility for Exterior Community Noise" recommended by the California Department of Health, Office of Noise Control.

SETTING

Existing Land Uses in the Project Area

Sensitive receptors include residences, schools, hospitals, and similar uses that are sensitive to noise. The areas adjacent to the project site include the following uses:

- **North:** Land uses to the north of the project site consist of single- and multifamily residences zoned Residential Low (RL) and Residential Medium High (RMH). The RMH zone corresponds to grouped housing such as townhomes, triplexes, fourplexes, and larger group housing at a density of up to 20.0 dwellings per gross acre. Existing land uses include the medical office buildings approved by Los Angeles County in 1987 and the Sunrise at Sterling Canyon facility, a senior living facility that provides independent living, assisted living, and hospice care.
- **West:** Land uses to the west of the project site consist primarily of single-family residences zoned for RL uses. The residential uses immediately west of HMNMH were developed in 1978.
- **East:** Land uses to the east consist primarily of single-family residences zoned for Residential Suburban (RS) and the United Methodist Church located on the opposite side of McBean Parkway. This zone corresponds to the single-family detached tract home at a density of up to five dwelling units per gross acre. Similar to the RMH designation, RS-zoned areas permit additional uses that are complementary to, and can exist in harmony with, a residential neighborhood. Residential uses immediately east of HMNMH were developed in 1969.
- **South:** Land uses to the south of the project site consist primarily of single-family residences zoned for RL uses.

These sensitive land uses may be potentially affected by the noise generated during construction and operation on the project site.

Overview of the Existing Noise Environment

Existing Traffic Noise. The primary existing noise sources in the project area are transportation facilities. Traffic on McBean Parkway and other streets in the project vicinity is the source of ambient noise in the project vicinity. The existing (2005) average daily traffic volumes (ADT) for roadway segments in the project vicinity are provided by Austin-Foust Associates, Inc. (April 2005).

Table D: 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 E: 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 F: 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: Office of Noise Control, California Department of Health 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.

CNEL = community noise equivalent level
dB = decibel
ft = feet
L_{dn} = Day/Night noise level

The Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate highway 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 resultant noise levels are weighted and summed over 24-hour periods to determine the CNEL values. Table G provides the existing (2005) 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.

Traffic noise is generally moderate to high along existing street segments in the project vicinity. The 70, 65, and 60 dBA CNEL extend up to 170, 357, and 764 ft, respectively, from the roadway centerline of McBean Parkway north of Magic Mountain Parkway. Other roadway segments in the project vicinity are exposed to traffic noise levels lower than along McBean Parkway.

Existing Ambient Noise Monitoring. An ambient noise survey was conducted in the project area by LSA staff on January 12, 2005. Ambient noise levels were measured over 10 to 20 minutes at 12 representative locations between 10:00 a.m. and 6:00 p.m. Table H lists the location, noise levels, and noise sources for the noise survey. Figure 3 depicts these noise monitoring locations. Based on the ambient noise survey, it was found that vehicular traffic is the dominant noise source in the project area. Aircraft, children playing in the neighboring residential communities, birds and dogs, an air-conditioning system, an emergency siren, a leaf blower, loading/unloading activities, a table saw, and a train horn also contributed to some degree to the ambient noise in the project vicinity.

Existing Helicopter Noise. The hospital is used by Los Angeles County Fire and Los Angeles County Sheriff air operations, as well as Mercy Air and other medical transport services as a receiving location for patients flown in by helicopter. Although the helicopter operations stopped in 2005, there were helicopter operations at the time of project startup (Notice of Preparation issue date). Therefore, existing helicopter noise discussion was based on operations evaluated under those conditions. Based on data provided in the Helicopter Noise Analysis for Henry Mayo Newhall Hospital (BridgeNet International, April 6, 2004), the helicopters operated at the hospital included Bell 222, Bell 412, Sikorsky S70 Blackhawk, and Koala helicopters. All of the different helicopters flew approximately the same flight paths going to and from the hospital. Based on the discussions between BridgeNet International and pilots from Los Angeles County Fire Air Operations, when approaching the hospital from either the north or the west, the helicopters fly along McBean Parkway until reaching the hospital. Once the helicopter is approximately over the hospital, the pilot then moves the aircraft over the parking lot, between the existing buildings and toward the helipad, which is at ground level. Departing helicopter flights will fly over the parking lot toward McBean Parkway and, depending upon the winds, will travel either north or west over the parkway. These paths are designed to fly over less noise-sensitive land uses when in the area of the hospital. Existing operations average 10 to 12 arrivals or departures a month. Based on the BridgeNet report, monitoring at two sites west/northwest of the hospital showed that ambient noise over a period of 35 days, taken in

Table G: Existing Traffic Noise Levels

Roadway Segment	ADT	Center-line to 70 CNEL (ft)	Center-line to 65 CNEL (ft)	Center-line to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane
McBean Parkway north of Magic Mountain Parkway	63,000	170	357	764	74.5
McBean Parkway between Magic Mountain Parkway and Valencia Boulevard	43,000	113	236	505	72.5
McBean Parkway between Valencia Boulevard and Orchard Village Road	37,000	103	214	457	71.8
McBean Parkway between Orchard Village Road and Rockwell Canyon Road	28,000	87	178	380	70.6
McBean Parkway west of Rockwell Canyon Road	39,000	106	221	473	72.1
Magic Mountain Parkway west of McBean Parkway	29,000	72	152	326	70.4
Magic Mountain Parkway between McBean Parkway and Valencia Boulevard	23,000	63	131	279	69.4
Magic Mountain Parkway east of Valencia Boulevard	17,000	50	107	228	68.1
Valencia Boulevard west of McBean Parkway	47,000	119	250	535	72.9
Valencia Boulevard between McBean Parkway and Magic Mountain Parkway	42,000	111	232	497	72.4
Valencia Boulevard east of Magic Mountain Parkway	54,000	130	274	587	73.5
Orchard Village Road between McBean Parkway and Wiley Canyon Road	29,000	72	152	326	70.4
Orchard Village Road between Wiley Canyon Road and Lyons Avenue	22,000	61	127	271	69.2
Wiley Canyon Road between Lyons Avenue and Tournament Road	18,000	54	111	237	68.4
Wiley Canyon Road between Tournament Road and Orchard Village Road	15,000	46[1]	99	210	67.6
Wiley Canyon Road east of Orchard Village Road	11,000	38	81	171	66.2
Lyons Avenue west of Wiley Canyon Road	38,000	86	182	390	71.6
Lyons Avenue between Wiley Canyon Road and Orchard Village Road/Valley Street	33,000	78	165	355	71.0
Lyons Avenue between Orchard Village Road/ Valley Street and Newhall Avenue	34,000	80	169	362	71.1

Source: LSA Associates, Inc., February 2008.
[1] Traffic noise within 50 ft of roadway centerline was manually calculated with line source drop-off rate.
ADT = average daily traffic
CNEL = community noise equivalent level
dBA = A-weighted decibel
ft = feet

Table H: Henry Mayo Newhall Memorial Hospital Noise Monitoring Results

Site	Location	Date	Start Time	Duration (minutes)	L_{eq}	L_{max}	L_{min}	L_2	L_8	L_{25}	L_{50}	Noise Sources
M-1	25695 Bellerive Drive; in the backyard	1-12-05	10:21 am	20	61.9	73.1	51.1	68.5	65.7	62.5	60.3	Traffic on McBean Parkway, some aircraft noise (helicopter), dump truck noise picking up trash across the street at the hospital
M-2	25694 Estroil Street; in the frontyard	1-12-05	11:08 am	20	61.0	67.8	42.7	66.0	64.5	62.5	60.1	Traffic on McBean Parkway
M-3	Valencia Meadows park; at the park benches	1-12-05	11:46 am	20	52.9	67.8	44.4	60.6	56.5	52.4	49.9	Children playing at the playground, parents talking to their children, dogs barking faintly in the background, and some aircraft noise
M-4	East of the Central Plant and the Emergency Building; near a bench in the parking lot	1-12-05	1:07 pm	10	61.4	72.8	56.8	66.1	63.3	61.5	60.5	Traffic in the parking lot (vehicle pass-by), people conversing, HVAC noise on the rooftop, emergency siren faintly in the background on McBean Parkway
M-5	North of the Central Plant; across the street; approximately 24 ft from the Central Plant	1-12-05	1:23 pm	10	66.8	83.2	57.6	71.1	70.9	70.7	58.6	Central Plant noise, air flowing through a vent noise, and traffic on the roadway (vehicle pass-by)
M-6	Southwest corner of the helipad; near the Hospital's loading dock	1-12-05	1:40 pm	10	66.3	72.8	55.8	71.4	70.0	68.2	65.6	Leaf blower, unloading activity at the dock, parking lot activity (door slam)
M-7	25815 McBean Parkway; Sunrise Independent & Assisted Living; 3rd apartment unit from the back (approximately 8 ft below parking lot elevation)	1-12-05	2:11 pm	10	51.3	58.6	47.6	54.4	53.1	52.1	50.9	Traffic on McBean Parkway, some parking lot noise next to the apartment complex

Table H: Henry Mayo Newhall Memorial Hospital Noise Monitoring Results

Site	Location	Date	Start Time	Duration (minutes)	L_{eq}	L_{max}	L_{min}	L_2	L_8	L_{25}	L_{50}	Noise Sources
M-8	25878 Ramittlo Way; in the backyard (4th house from the cul-de-sac)	1-12-05	2:42 pm	20	53.1	68.6	43.8	64.6	54.8	49.4	46.7	Truck noise, aircraft noise, constant beeping noise from the hospital, vehicle pass-by from the hospital parking lot, table saw operating faintly in the background, emergency siren faintly in the background
M-9	25933 Sardinia Court; in the backyard	1-12-05	3:21 pm	10	47.7	58.9	42.5	54.4	50.2	47.1	46.1	Some aircraft noise and bird noise
M-10	25850 Anizo Way; in the backyard	1-12-05	3:52 pm	20	60.6	72.2	50.1	70.7	68.1	55.0	53.6	Noise from Central Plant, dog barking next door, and train/horn noise faintly in the background
M-11	23788 Via Jacara; in the frontyard; 4th house from Avenida Navarre	1-12-05	4:39 pm	20	69.5	85.0	54.2	76.5	71.6	69.8	67.4	Traffic on McBean Parkway and emergency siren faintly in the background
M-12	23873 Via Jacara; in the backyard	1-12-05	5:10 pm	20	62.9	80.8	52.5	68.5	65.0	63.0	61.0	Traffic on McBean Parkway and emergency siren

Source: LSA Associates, Inc. January 2005.
ft = feet
L_{eq} = Equivalent continuous noise level
L_{max} = Maximum A-weighted sound level
L_{min} = Minimum A-weighted sound level
L_2 = Fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 2 percent of a stated time period
L_8 = Fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 8 percent of a stated time period
L_{25} = Fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 25 percent of a stated time period
L_{50} = Fast A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 50 percent of a stated time period

LSA

LEGEND

M-2 ◆ - Noise Monitoring Locations

FIGURE 3

N

0 250 500

FEET (APPROXIMATE)

BASE MAP SOURCE: Eagle Aerial

Newhall Hospital

Noise Monitoring Locations

I:\RBF435\G\Noise Locs.cdr (4/26/05)

December 2003 and January and February 2004 (including helicopter activities), were 59.9 dBA CNEL (Site 1, which is closer to the existing helipad) and 53.8 dBA CNEL (Site 2, which is away from the existing helipad); both were below the 65 dBA CNEL exterior noise standard for residential uses. In addition, noise measurements during helicopter operations showed that the average hourly noise levels were either at or below 72.6 dBA L_{eq} at the site closer to the existing helipad (Site 1) and at or below 58.9 dBA L_{eq} at the site away from the existing helipad (Site 2). Since the majority of the helicopter events measured at these sites occurred for durations of more than one minute but less than five minutes per hour, they are below the daytime noise level of 75 dBA L_{eq}, but are higher than the nighttime noise level of 55 dBA L_{eq} suggested by the City. Existing homes to the north and west of the hospital are farther away from the helipad than the location of the noise measurement sites; the noise exposure level in the rear yards of existing homes closest to the existing helipad is less than 60 dBA CNEL. Existing homes to the east and south of the hospital are exposed to helicopter flyover noise similar to one receptor location analyzed to the west of the hospital that has similar distance to McBean Parkway (the flight path) and are exposed to noise levels below 60 dBA CNEL from the existing helicopter operations.

Thresholds of Significance

In accordance with Appendix G to the State CEQA Guidelines, a project may be deemed to have a significant adverse noise impact if it would result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

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

These standards would apply to the land uses that would be constructed within the proposed project site. Compliance with the City's General Plan standards does not automatically ensure that there is no significant impact under CEQA. For example, the potential impact of a noise level projected to be below the maximum in the General Plan noise standards could be considered significant if the increase over the existing ambient noise level is substantial.

The CEQA Guidelines do not define the levels at which groundborne vibration is considered "excessive." This analysis uses the Federal Railway Administration's vibration impact thresholds for sensitive buildings, residences, and institutional land uses. These thresholds are 80 VdB at residences and buildings where people normally sleep (e.g., nearby residences) and 83 VdB at institutional buildings.

The CEQA Guidelines also do not define the levels at which temporary and permanent increases in ambient noise are considered "substantial." As discussed previously in this section, a noise level increase of 3 dBA is barely perceptible to most people, a 5 dBA increase is readily noticeable, and a difference of 10 dBA would be perceived as a doubling of loudness.

Based on this information, temporary increases in noise levels of 10 dBA or more due to construction activities would be substantial and, therefore, significant.

The following thresholds would apply permanent increases in noise due to the operational characteristics of the proposed project:

- Less than 3 dBA: not significant.
- Between 3 dBA and 5 dBA: not significant if noise levels remain below the City of Santa Clarita General Plan noise level standards; significant if the noise increase would meet or exceed the City of Santa Clarita General Plan noise level standards.

The applicable noise standards governing the project site are the criteria in the City's Noise Element and Noise Control Ordinance.

City of Santa Clarita Noise Standards

The City has set land use standards for noise in its General Plan Noise Element (June 25, 1991; First Amendment, May 23, 2000). One of the City's goals in the Noise Element is to prevent and mitigate significant noise levels in residential neighborhoods. It requires that developers of new single-family and multifamily residential neighborhoods in areas where the ambient noise level exceeds 55 dBA (night) and 65 dBA (day) (or the equivalent of 65 dBA CNEL) provide mitigation measures for the new residences to reduce interior noise levels. For medical office buildings, it is acceptable in areas up to 70 dBA CNEL where no outdoor active uses are proposed and the interior noise levels are mitigated (California Department of Health 1978).

In addition, the City will develop, adopt, and enforce a standard for all commercial uses of 70 dBA (night) and 80 dBA (day) (or the equivalent of 80 dBA CNEL) that cause adverse levels of significant discernible noise on adjacent residential neighborhoods.

The City's Municipal Code, Chapter 11.44, Noise Limits, establishes noise standards in various land use zones during daytime (7:00 a.m.–10:00 p.m.) and nighttime (10:00 p.m.–7:00 a.m.) periods. For residential zones, the base noise levels are 65 dBA during the daytime period and 55 dBA during the nighttime period. For commercial and manufacturing zones, the base noise levels are 80 dBA during the daytime period and 70 dBA during the nighttime period. For repetitive impulsive noise or steady, whine, screech, or hum noise, the base noise levels noted above are reduced by 5 dBA. If the noise occurs more than 5 but less than 15 minutes per hour during the daytime period, the above base noise levels are raised by 5 dBA. If the noise occurs more than 1 but less than 5 minutes per hour during the daytime period, the above base noise levels are raised by 10 dBA. If the noise occurs less than 1 minute per hour during daytime period, the above base noise levels are raised by 20 dBA.

No person shall engage in any construction work that requires a building permit from the City on sites within 300 ft of a residentially zoned property except between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday, and 8:00 a.m. and 6:00 p.m. on Saturday. Further, no work shall be performed on the following public holidays: New Year's Day, Independence Day, Thanksgiving, Christmas Day, Memorial Day, and Labor Day. The City of Santa Clarita Planning and Building Services Department may issue a permit for work to be done "after hours" provided that containment of construction noises is provided.

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 in the project area today 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. First, construction crew commutes and the transport of construction equipment and materials to the site for the proposed project would incrementally increase noise levels on access roads leading to the site. 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 ft. However, the projected construction traffic will be small when compared to the existing traffic volumes on McBean Parkway and I-5, and its associated long-term noise level change 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 the 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 I lists maximum noise levels recommended for noise impact assessments for typical construction equipment based on a distance of 50 ft between the equipment and a noise receptor. Typical maximum noise levels range up to 91 dBA at 50 ft 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 the noisiest construction equipment is earthmoving 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.

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

Type of Equipment	Range of Maximum Sound Level Measured at 50 ft (dBA)	Suggested Maximum Sound Level for Analysis at 50 ft (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: Noise Control for Buildings and Manufacturing Plants, Bolt, Beranek, & Newman 1987.
dBA = A-weighted decibel
ft = feet
ft/lb = foot-per-pound
L_{max} = The maximum A-weighted sound level measured on a sound level meter

Construction of the proposed project is expected to require the use of scrapers, bulldozers, and water and pickup trucks. This equipment would be used on the project site. Based on Table I, the maximum noise level generated by each scraper on the proposed project site is assumed to be 87 dBA L_{max} at 50 ft from the earthmover. Each bulldozer would also generate 88 dBA L_{max} at 50 ft. The maximum noise level generated by water and pickup trucks is approximately 86 dBA L_{max} at 50 ft 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 ft from the active construction area.

It is anticipated that MOB-1 and PS-1 will be constructed first, with the ultimate Master Plan buildout in 15 years. MOB-1 and PS-1 are along McBean Parkway in the project's northeastern portion.

The closest existing residences in the vicinity of the project area near MOB-1 and PS-1 are those located to the east of McBean Parkway more than 150 ft from the project's boundary. They would be exposed to intermittent construction noise reaching 81 dBA L_{max}. Although vehicular traffic on McBean Parkway would mask most construction noise for these residences. Construction noise from the project site could result in temporary increases in noise levels of 10 dBA intermittently in this neighborhood.

During the Master Plan buildout implementation period, existing residences to the west, north, and south would also experience periods of relatively high construction noise from the project site. Existing residences located west of the project site are approximately 50 ft from the nearest construction area on site. There is an existing 6 ft high wall along the property line of these residences separating them from the hospital activity. The 6 ft high sound wall would provide a minimum of 6 dBA in noise reduction from the project site for these residences. These closest residences may be subject to short-term noise reaching 86 dBA L_{max}, generated by construction activities near the project boundary. Homes to the north of the hospital are approximately 75 ft above the hospital and are 200 ft or more from the construction areas. They would be exposed to construction noise reaching 79 dBA L_{max}. Homes to the south of the hospital are more than 100 ft from the construction areas. They would be exposed to construction noise reaching 86 dBA L_{max}. Because construction on the project site could result in temporary increases in noise levels of 10 dBA intermittently at these adjacent residences, it is considered a significant impact.

Traffic Noise Impact

Exterior land uses on the project site that would be potentially exposed to high noise levels are the medical office buildings fronting McBean Parkway. The projected future traffic volumes (Austin-Foust Associates, Inc., October 2007) for roadway segments in the project vicinity are used in the traffic noise impact analysis. The FHWA Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used to evaluate future highway traffic-related noise conditions in the vicinity of the project site.

Interim Year Traffic Noise Impacts. Table J provides the Interim Year Without Project traffic noise levels adjacent to roadway segments in the project vicinity. Table K provides the Interim Year With Project traffic noise levels adjacent to roadway segments in the project vicinity. These noise levels represent the worst-case scenario, which assumes 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 K shows that project-related traffic noise increases along roadway segments in the project vicinity would be mostly small and negligible (0.5 dBA or less). This range of noise level changes is not perceptible by the human ear and is considered less than significant. No significant project-related traffic noise impacts on off-site land uses would occur.

The proposed on-site medical office buildings (MOB-1 and MOB-2) along McBean Parkway would be outside of the 70 dBA CNEL impact zones. Standard building construction for new medical office buildings normally provides more than 25 dBA exterior-to-interior noise attenuation with windows closed and therefore would provide sufficient noise attenuation to achieve the interior noise standards. No mitigation measures would be required other than that the buildings should be equipped with an air-conditioning system or any form of mechanical ventilation system that allows windows to remain closed for prolonged periods of time.

Long-Range Cumulative Year. Table L provides the Long-Range Cumulative Year Without Project traffic noise levels adjacent to roadway segments in the project vicinity. Table M provides the Long-Range Cumulative Year Plus Project traffic noise levels adjacent to roadway segments in the project vicinity. These noise levels represent the worst-case scenario, which assumes 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 M shows that project-related traffic noise increases along roadway segments in the project vicinity would be mostly small and negligible (0.5 dBA or less). This range of noise level changes is not perceptible by the human ear and is considered less than significant. No significant project-related traffic noise impacts on off-site land uses would occur.

The proposed on-site medical office buildings (MOB-1 and MOB-2) along McBean Parkway would continue to be outside of the 70 dBA CNEL impact zones. Standard building construction for new medical office buildings would provide sufficient noise attenuation to achieve the interior noise standards. No mitigation measures would be required other than that the buildings should be equipped with an air-conditioning system or any form of mechanical ventilation system that allows windows to remain closed for prolonged periods of time.

Helicopter Noise Impact

As stated previously, the hospital is used by Los Angeles County Fire and Los Angeles County Sheriff air operations, as well as Mercy Air and other medical transport services, as a receiving location for patients flown in by helicopter. As part of the proposed Master Plan, a helipad will be proposed on the rooftop of PS-1 and on Inpatient Building A.

Table J: Interim Year Traffic Noise Levels without Project

Roadway Segment	ADT	Center-line to 70 CNEL (ft)	Center-line to 65 CNEL (ft)	Center-line to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane
McBean Parkway north of Magic Mountain Parkway	82,000	200	424	910	75.7
McBean Parkway between Magic Mountain Parkway and Valencia Boulevard	61,000	140	297	637	74.0
McBean Parkway between Valencia Boulevard and Orchard Village Road	44,500	115	241	516	72.6
McBean Parkway between Orchard Village Road and Rockwell Canyon Road	29,000	89	182	389	70.8
McBean Parkway west of Rockwell Canyon Road	45,000	116	243	520	72.7
Magic Mountain Parkway west of McBean Parkway	53,000	106	226	486	73.1
Magic Mountain Parkway between McBean Parkway and Valencia Boulevard	42,500	92	196	420	72.1
Magic Mountain Parkway east of Valencia Boulevard	44,000	94	200	430	72.2
Valencia Boulevard west of McBean Parkway	64,000	145	306	657	74.2
Valencia Boulevard between McBean Parkway and Magic Mountain Parkway	46,500	118	248	532	72.8
Valencia Boulevard east of Magic Mountain Parkway	61,000	140	297	637	74.0
Orchard Village Road between McBean Parkway and Wiley Canyon Road	39,000	87	185	397	71.7
Orchard Village Road between Wiley Canyon Road and Lyons Avenue	26,000	68	141	303	70.0
Wiley Canyon Road between Lyons Avenue and Tournament Road	23,000	63	131	279	69.4
Wiley Canyon Road between Tournament Road and Orchard Village Road	21,000	59	123	263	69.0
Wiley Canyon Road east of Orchard Village Road	26,000	68	141	303	70.0
Lyons Avenue west of Wiley Canyon Road	50,000	102	218	468	72.8
Lyons Avenue between Wiley Canyon Road and Orchard Village Road/Valley Street	41,000	90	191	410	71.9
Lyons Avenue between Orchard Village Road/Valley Street and Newhall Avenue	47,000	98	209	449	72.5

Source: LSA Associates, Inc., February 2008.
ADT = average daily traffic
CNEL = community noise equivalent level
dBA = A-weighted decibel
ft = feet

Table K: Interim Year Traffic Noise Levels with Project

Roadway Segment	ADT	Center-line to 70 CNEL (ft)	Center-line to 65 CNEL (ft)	Center-line to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Conditions
McBean Parkway north of Magic Mountain Parkway	83,000	202	428	918	75.7	0.0
McBean Parkway between Magic Mountain Parkway and Valencia Boulevard	62,000	142	300	644	74.1	0.1
McBean Parkway between Valencia Boulevard and Orchard Village Road	46,500	118	248	532	72.8	0.2
McBean Parkway between Orchard Village Road and Rockwell Canyon Road	33,000	96	198	423	71.3	0.5
McBean Parkway west of Rockwell Canyon Road	48,000	121	253	543	73.0	0.3
Magic Mountain Parkway west of McBean Parkway	53,000	106	226	486	73.1	0.0
Magic Mountain Parkway between McBean Parkway and Valencia Boulevard	42,500	92	196	420	72.1	0.0
Magic Mountain Parkway east of Valencia Boulevard	44,000	94	200	430	72.2	0.0
Valencia Boulevard west of McBean Parkway	64,000	145	306	657	74.2	0.0
Valencia Boulevard between McBean Parkway and Magic Mountain Parkway	47,500	120	252	539	72.9	0.1
Valencia Boulevard east of Magic Mountain Parkway	61,000	140	297	637	74.0	0.0
Orchard Village Road between McBean Parkway and Wiley Canyon Road	41,000	90	191	410	71.9	0.2
Orchard Village Road between Wiley Canyon Road and Lyons Avenue	27,000	69	145	311	70.1	0.1
Wiley Canyon Road between Lyons Avenue and Tournament Road	23,000	63	131	279	69.4	0.0
Wiley Canyon Road between Tournament Road and Orchard Village Road	21,000	59	123	263	69.0	0.0
Wiley Canyon Road east of Orchard Village Road	27,000	69	145	311	70.1	0.1
Lyons Avenue west of Wiley Canyon Road	50,000	102	218	468	72.8	0.0
Lyons Avenue between Wiley Canyon Road and Orchard Village Road/Valley Street	41,000	90	191	410	71.9	0.0
Lyons Avenue between Orchard Village Road/Valley Street and Newhall Avenue	47,000	98	209	449	72.5	0.0

Source: LSA Associates, Inc., February 2008.
ADT = average daily traffic
CNEL = community noise equivalent level
dBA = A-weighted decibel
ft = feet

Table L: Long-Range Cumulative Year Traffic Noise Levels without Project

Roadway Segment	ADT	Center-line to 70 CNEL (ft)	Center-line to 65 CNEL (ft)	Center-line to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane
McBean Parkway north of Magic Mountain Parkway	68,000	178	375	804	74.9
McBean Parkway between Magic Mountain Parkway and Valencia Boulevard	57,000	134	284	609	73.7
McBean Parkway between Valencia Boulevard and Orchard Village Road	40,500	109	227	485	72.2
McBean between Orchard Village Road and Rockwell Canyon Road	32,000	94	194	415	71.2
McBean Parkway west of Rockwell Canyon Road	48,000	121	253	543	73.0
Magic Mountain Parkway west of McBean Parkway	52,000	105	223	480	73.0
Magic Mountain Parkway between McBean Parkway and Valencia Boulevard	46,500	98	208	446	72.5
Magic Mountain Parkway east of Valencia Boulevard	53,000	106	226	486	73.1
Valencia Boulevard west of McBean Parkway	69,000	152	322	691	74.5
Valencia Boulevard between McBean Parkway and Magic Mountain Parkway	51,500	126	265	569	73.3
Valencia Boulevard east of Magic Mountain Parkway	55,000	131	277	594	73.6
Orchard Village Road between McBean Parkway and Wiley Canyon Road	42,000	91	194	417	72.0
Orchard Village Road between Wiley Canyon Road and Lyons Avenue	27,000	69	145	311	70.1
Wiley Canyon Road between Lyons Avenue and Tournament Road	24,000	64	134	287	69.6
Wiley Canyon Road between Tournament Road and Orchard Village Road	22,000	61	127	271	69.2
Wiley Canyon Road east of Orchard Village Road	27,000	69	145	311	70.1
Lyons Avenue west of Wiley Canyon Road	52,000	105	223	480	73.0
Lyons Avenue between Wiley Canyon Road and Orchard Village Road/Valley Street	44,000	94	200	430	72.2
Lyons Avenue between Orchard Village Road/Valley Street and Newhall Avenue	50,000	102	218	468	72.8

Source: LSA Associates, Inc., February 2008.
ADT = average daily traffic
CNEL = community noise equivalent level
dBA = A-weighted decibel
ft = feet

Table M: Long-Range Cumulative Year Traffic Noise Levels with Project

Roadway Segment	ADT	Center-line to 70 CNEL (ft)	Center-line to 65 CNEL (ft)	Center-line to 60 CNEL (ft)	CNEL (dBA) 50 ft from Centerline of Outermost Lane	Increase from Baseline Conditions
McBean Parkway north of Magic Mountain Parkway	69,000	180	379	812	74.9	0.0
McBean Parkway between Magic Mountain Parkway and Valencia Boulevard	57,000	134	284	609	73.7	0.0
McBean Parkway between Valencia Boulevard and Orchard Village Road	42,000	111	232	497	72.4	0.2
McBean Parkway between Orchard Village Road and Rockwell Canyon Road	36,000	101	210	449	71.7	0.5
McBean Parkway west of Rockwell Canyon Road	51,000	125	264	565	73.2	0.2
Magic Mountain Parkway west of McBean Parkway	52,000	105	223	480	73.0	0.0
Magic Mountain Parkway between McBean Parkway and Valencia Boulevard	46,000	97	206	443	72.4	-0.1
Magic Mountain Parkway east of Valencia Boulevard	53,000	106	226	486	73.1	0.0
Valencia Boulevard west of McBean Parkway	68,000	150	319	685	74.5	0.0
Valencia Boulevard between McBean Parkway and Magic Mountain Parkway	52,500	128	269	576	73.4	0.1
Valencia Boulevard east of Magic Mountain Parkway	56,000	133	281	602	73.6	0.0
Orchard Village Road between McBean Parkway and Wiley Canyon Road	44,000	94	200	430	72.2	0.2
Orchard Village Road between Wiley Canyon Road and Lyons Avenue	27,000	69	145	311	70.1	0.0
Wiley Canyon Road between Lyons Avenue and Tournament Road	25,000	66	138	295	69.8	0.2
Wiley Canyon Road between Tournament Road and Orchard Village Road	22,000	61	127	271	69.2	0.0
Wiley Canyon Road east of Orchard Village Road	28,000	71	149	318	70.3	0.2
Lyons Avenue west of Wiley Canyon Road	52,000	105	223	480	73.0	0.0
Lyons Avenue between Wiley Canyon Road and Orchard Village Road/Valley Street	44,000	94	200	430	72.2	0.0
Lyons Avenue between Orchard Village Road/Valley Street and Newhall Avenue	51,000	104	221	474	72.9	0.1

Source: LSA Associates, Inc., February 2008.
ADT = average daily traffic
CNEL = community noise equivalent level
dBA = A-weighted decibel
ft = feet

Initial Helipad Location. As part of the Long-Range Cumulative Year plan, the helipad will be temporarily relocated to a location northeast of its current location. The BridgeNet report (April 6, 2004) evaluated potential noise impacts to adjacent residences as a result of this relocation. The primary factor dictating the location of the noise impacts will be the location of the flight tracks to and from the helipad. In order to gain lift and maintain control of the aircraft, helicopters, like fixed winged aircraft, need to take off and land facing in the direction of the oncoming wind. Therefore, the location of the flight tracks are governed primarily by the prevailing winds at the time of flight. Changes in the wind direction and speed have a direct correlation to changes in path that the helicopter must fly.

Under typical meteorological conditions, the winds in the area of the hospital are coming from the west and are less than ten knots (nautical miles per hour) in speed. Under calm conditions, the pilot can land and depart the aircraft in any direction, depending upon clearance from obstacles. Currently, the helicopters operating at the hospital must be flown between two buildings when either arriving or departing the helipad, regardless of the direction of the winds. The new helipad will be raised to an elevation equal to the roof of the hospital. This change in elevation will eliminate the obstacles that currently surround the existing helipad.

At the initial helipad location (northeast of the existing location) and under calm wind conditions, where the winds are less than ten knots, the pilots will follow the same flight procedures they currently follow to the existing pad. They will continue to fly along McBean Parkway until they reach the hospital, then turn toward the pad by flying over the parking lot. Departing flights will take off toward the parking lot to the south and then continue along the parkway, either north or west depending upon their next destination and prevailing winds at the time.

Under the condition when winds from the west exceed ten knots, the helicopters will not be able to approach the initial helipad directly from the southwest direction, but more from the northwest direction. In this case, the pilots will approach the hospital from the northwest along McBean Parkway. They will make an approach similar to the existing approach to the existing helipad; however, they will be at a higher elevation. When they reach the site of the existing helipad, they will turn to the northeast and approach the initial helipad by flying into the prevailing winds.

Relocating the helipad from the existing location to the initial location northeast of the existing location will increase the noise to the homes on the northeast side of the hospital and will decrease the noise to the homes to the west of the hospital. Based on the BridgeNet report, the noise level at the homes on the northeast side of the hospital will experience an increase in noise of about 2 dBA under calm wind conditions, while the homes on the west side of the hospital will see a reduction in noise of up to 2.7 dBA, also under calm wind conditions. Under the west wind conditions, the increase in noise is more evenly distributed. However, none of the existing or projected noise levels associated with this initial relocation is in excess of 65 dBA CNEL, the threshold for impact to residential use. The projected change in noise level at any location, due to the initial helipad relocation under calm wind conditions, is less than 3 dBA. The worst-case increase in noise level is 3 dBA, assuming the worst-case weather conditions. Therefore, temporary relocation of the helipad in the Initial Helipad Location will have no significant noise impact on surrounding noise-sensitive land uses adjacent to the hospital.

Long-Range Cumulative Year. According to the Long-Range Cumulative Year plan, the helipad will be relocated to either the top of the five-story Inpatient Building A, a location very close to its current location, or at the rooftop of PS-1. At Inpatient Building A, the new ultimate helipad will be raised to an elevation equal to the roof of the hospital. This change in elevation will eliminate the obstacles that currently surround the existing helipad. Based on the BridgeNet report (April 6, 2004), the hospital currently accommodates 10 to 12 helicopter flights each month. If the new helipad at the top of Inpatient Building A is operational before the increase in helicopter flights, residences in the neighborhood of the hospital will experience helicopter noise similar to their current conditions. According to the hospital, they expect the level of activity to increase to 15 to 17 a month in the future. This is an estimate based on the growth over several years in the past, and it is not expected to be seen for several more years in the future. An increase in flight activity from 12 to 17 a month represents an increase in the noise exposure level of about 1.5 dBA (in terms of the 24-hour weighted average scale of CNEL), which is not large enough to be perceptible. For example, the increase of the noise level at the two monitoring sites to 61.4 dBA CNEL (Site 1 in the BridgeNet report) and 55.3 dBA CNEL (Site 2 in the BridgeNet report) would not result in their noise levels to exceed the City's 65 dBA CNEL exterior noise standard for residential uses. Therefore, no significant long-term noise impacts would occur from the helicopter operations at the hospital.

If the helipad is relocated to the rooftop of PS-1, noise associated with the helicopter operations would be reduced for existing residences to the west and south of the project site. Existing residences to the north and east (near PS-1) would experience a slight increase in noise from future helicopter operations. However, since PS-1 is near the existing flight route for the helicopter operations and is adjacent to McBean Parkway, where heavy traffic dominates the ambient noise, the increase in helicopter noise with the helipad on the rooftop of PS-1 would not be noticeable and would be less than significant.

Although HMNMH is requesting that the initial helipad on PS-1 be allowed to remain once the ultimate Inpatient Building helipad is constructed, both helipads would not be operational at the same time. Therefore, noise impacts associated with helipads would be less than significant.

Stationary Noise Impact

Interim Operations. There would be stationary noise sources associated with the interim operations (2018) on the project site. These stationary sources of noise include noises associated with delivery truck loading and unloading, truck movements on driveways, and other parking-lot activities. Such isolated peak noises are measured in dBA L_{max}, as the volume or frequency of such events is not critical, and the noises are not an averaged calculation, such as CNEL.

Because these on-site stationary sources or activities would not occur at distances closer to any existing residential uses in the project vicinity, noise associated with these stationary sources would not have any significant impacts on adjacent uses.

Long-Range Cumulative Year. Similar to the interim operations, there would be stationary noise sources associated with the proposed Long-Range Cumulative Year plan on the project site. These stationary sources of noise include noises associated with delivery truck loading and unloading, truck movements on driveways, and other parking-lot activities. Such isolated peak noises are measured in dBA L_{max}, as the volume or frequency of such events is not critical, and the noises are not an averaged calculation, such as the CNEL.

Because these on-site stationary sources or activities would not occur at distances closer to any existing residential uses in the project vicinity, noise associated with these stationary sources would not have any significant impacts on adjacent uses.

MITIGATION MEASURES

Construction Impacts

Construction will be limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 6:00 p.m. on Saturday, in accordance with the City's Noise Control Ordinance. No construction activities are permitted outside of these hours or on Sundays and federal holidays.

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

1. 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.
2. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
3. The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.

Helicopter Noise

No mitigation is required.

Traffic Noise Impacts

Outdoor Active Use Area. No mitigation measures are required for outdoor active use areas associated with the on-site uses.

Interior Noise Sound Wall. To meet the 45 dBA CNEL interior noise standard for medical office uses, the following mitigation measures will be required:

1. Mechanical ventilation, such as an air-conditioning system, shall be required for MOB-1 and MOB-2 that are along McBean Parkway to ensure that windows can remain closed for prolonged periods of time.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

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

REFERENCES

Austin-Foust Associates, Inc., Traffic Impact Analysis, Henry Mayo Newhall Memorial Hospital Master Plan, October 2007.

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

City of Santa Clarita, Noise Element of the General Plan.

City of Santa Clarita, Municipal Code Noise Ordinance.

County of Los Angeles, Noise Element of the General Plan.

County of Los Angeles, Noise Control Ordinance.

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

APPENDIX A

FHWA TRAFFIC NOISE MODEL PRINTOUTS

HENRY MAYO HOSPITAL

FHWA ROADWAY NOISE LEVEL ANALYSIS

CONTOUR6 MODEL PRINTOUTS

EXISTING BASELINE CONDITIONS

TABLE Existing-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean north of Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 63000 SPEED (MPH): 55 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
169.7	356.7	764.1	1643.8

TABLE Existing-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Magic Mtn. and Valencia
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 43000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

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

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
112.7	235.8	504.7	1085.6

TABLE Existing-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Valencia and Orchard Village
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 37000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.83

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
102.7	213.7	456.8	982.2

TABLE Existing-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Orchard Village and Rockwell Cyn.
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28000 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): 30 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.62

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
86.9	178.3	379.7	815.9

TABLE Existing-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean west of Rockwell Cyn.
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 39000 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): 30 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.06

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
106.1	221.2	473.0	1017.3

TABLE Existing-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn west of McBean
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29000 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

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* * 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
72.3	152.0	325.6	700.5

TABLE Existing-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn between McBean and Valencia
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23000 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) = 69.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
62.7	130.6	279.1	600.3

TABLE Existing-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn east of Valencia
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 17000 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) = 68.11

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	107.3	228.5	490.9

TABLE Existing-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia west of McBean
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 47000 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): 30 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	65 CNEL	60 CNEL	55 CNEL
119.1	250.0	535.4	1151.9

TABLE Existing-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia between McBean and Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 42000 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): 30 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
111.0	232.2	496.9	1068.8

TABLE Existing-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia east of Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 54000 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): 30 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.47

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
129.9	273.9	587.2	1263.6

TABLE Existing-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Orchard Village between McBean and Wiley Cyn.
NOTES: Henry Mayo Hospital General Plan - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29000 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) = 70.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
72.3	152.0	325.6	700.5

TABLE Existing-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Orchard Village between Wiley Cyn. and Lyons
NOTES: Henry Mayo Hospital General Plan - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22000 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) = 69.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
61.0	126.8	271.0	582.8

TABLE Existing-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn between Lyons and Tournement
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 18000 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) = 68.36

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

TABLE Existing-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn between Tournement and Orchard Village
NOTES: Henry Mayo Hospital General Plan - Existing

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* * 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): 18 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 67.57

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	98.9	210.3	451.7

TABLE Existing-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn east of Orchard Village
NOTES: Henry Mayo Hospital General Plan - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 11000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 66.22

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
0.0	81.1	171.3	367.5

TABLE Existing-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons west of Wiley Cyn
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 38000 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) = 71.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
85.8	181.6	389.7	838.7

TABLE Existing-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons between Wiley Cyn and Orchard Village Rd.
NOTES: Henry Mayo Hospital General Plan - Existing

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 33000 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) = 70.99

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
78.5	165.5	354.8	763.5

TABLE Existing-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons between Orchard Village Rd. and Newhall
NOTES: Henry Mayo Hospital General Plan - Existing

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 34000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
80.0	168.8	361.9	778.8

HENRY MAYO HOSPITAL

FHWA ROADWAY NOISE LEVEL ANALYSIS

CONTOUR6 MODEL PRINTOUTS

INTERIM YEAR WITHOUT PROJECT SCENARIO

TABLE 2018 w/o Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean north of Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 82000 SPEED (MPH): 55 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) = 75.69

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
200.5	424.3	910.4	1959.4

TABLE 2018 w/o Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Magic Mtn. and Valencia
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 61000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
140.3	296.8	636.8	1370.5

TABLE 2018 w/o Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Valencia and Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44500 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): 30 SITE CHARACTERISTICS: SOFT

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* * 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
115.1	241.2	516.3	1110.7

TABLE 2018 w/o Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Orchard Village and Rockwell Cyn.
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 29000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.78

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
88.7	182.4	388.6	835.1

TABLE 2018 w/o Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean west of Rockwell Cyn.
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.68

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
115.9	243.0	520.2	1119.0

TABLE 2018 w/o Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn west of McBean
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 53000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
106.3	226.3	486.3	1046.9

TABLE 2018 w/o Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn between McBean and Valencia
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 42500 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.09

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
92.2	195.6	419.8	903.7

TABLE 2018 w/o Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn east of Valencia
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
94.3	200.1	429.6	924.8

TABLE 2018 w/o Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia west of McBean
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 64000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
144.7	306.4	657.5	1415.0

TABLE 2018 w/o Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia between McBean and Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 46500 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): 30 SITE CHARACTERISTICS: SOFT

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* * 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
118.3	248.2	531.6	1143.7

TABLE 2018 w/o Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia east of Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 61000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
140.3	296.8	636.8	1370.5

TABLE 2018 w/o Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Orchard Village between McBean and Wiley Cyn.
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 39000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.72

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
87.2	184.8	396.5	853.4

TABLE 2018 w/o Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Orchard Village between Wiley Cyn. and Lyons
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
67.6	141.5	302.8	651.4

TABLE 2018 w/o Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn between Lyons and Tournement
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23000 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) = 69.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
62.7	130.6	279.1	600.3

TABLE 2018 w/o Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn between Tournement and Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21000 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) = 69.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
59.3	123.0	262.8	565.0

TABLE 2018 w/o Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn east of Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 26000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
67.6	141.5	302.8	651.4

TABLE 2018 w/o Project-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons west of Wiley Cyn
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 50000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.80

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
102.3	217.8	467.8	1007.1

TABLE 2018 w/o Project-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons between Wiley Cyn and Orchard Village Rd.
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 41000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
90.1	191.0	409.9	882.3

TABLE 2018 w/o Project-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons between Orchard Village Rd. and Newhall
NOTES: Henry Mayo Hospital General Plan - 2018 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 47000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
98.3	209.0	448.9	966.4

HENRY MAYO HOSPITAL

FHWA ROADWAY NOISE LEVEL ANALYSIS

CONTOUR6 MODEL PRINTOUTS

INTERIM YEAR WITH PROJECT SCENARIO

TABLE 2018 with Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean north of Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 83000 SPEED (MPH): 55 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 75.74

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
202.0	427.7	917.8	1975.3

TABLE 2018 with Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Magic Mtn. and Valencia
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 62000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.07

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL	70 CNEL	65 CNEL	60 CNEL	55 CNEL
	141.8	300.0	643.7	1385.4

TABLE 2018 with Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Valencia and Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 46500 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): 30 SITE CHARACTERISTICS: SOFT

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* * 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
118.3	248.2	531.6	1143.7

TABLE 2018 with Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Orchard Village and Rockwell Cyn.
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 33000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.34

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
95.8	198.3	423.4	910.2

TABLE 2018 with Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean west of Rockwell Cyn.
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 48000 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): 30 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
120.6	253.5	543.0	1168.2

TABLE 2018 with Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn west of McBean
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 53000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
106.3	226.3	486.3	1046.9

TABLE 2018 with Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn between McBean and Valencia
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 42500 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) = 72.09

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
92.2	195.6	419.8	903.7

TABLE 2018 with Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn east of Valencia
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
94.3	200.1	429.6	924.8

TABLE 2018 with Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia west of McBean
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 64000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.21

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
144.7	306.4	657.5	1415.0

TABLE 2018 with Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia between McBean and Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 47500 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.92

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
119.9	251.7	539.2	1160.1

TABLE 2018 with Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia east of Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 61000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.00

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
140.3	296.8	636.8	1370.5

TABLE 2018 with Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Orchard Village between McBean and Wiley Cyn.
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 41000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
90.1	191.0	409.9	882.3

TABLE 2018 with Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Orchard Village between Wiley Cyn. and Lyons
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27000 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) = 70.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
69.2	145.0	310.5	668.0

TABLE 2018 with Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn between Lyons and Tournement
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 23000 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) = 69.43

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
62.7	130.6	279.1	600.3

TABLE 2018 with Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn between Tournement and Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 21000 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) = 69.03

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
59.3	123.0	262.8	565.0

TABLE 2018 with Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn east of Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27000 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) = 70.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
69.2	145.0	310.5	668.0

TABLE 2018 with Project-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons west of Wiley Cyn
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 50000 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) = 72.80

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
102.3	217.8	467.8	1007.1

TABLE 2018 with Project-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons between Wiley Cyn and Orchard Village Rd.
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 41000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
90.1	191.0	409.9	882.3

TABLE 2018 with Project-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons between Orchard Village Rd. and Newhall
NOTES: Henry Mayo Hospital General Plan - 2018 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 47000 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) = 72.53

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
98.3	209.0	448.9	966.4

HENRY MAYO HOSPITAL

FHWA ROADWAY NOISE LEVEL ANALYSIS

CONTOUR6 MODEL PRINTOUTS

LONG RANGE YEAR (2030) WITHOUT PROJECT SCENARIO

TABLE 2030 w/o Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean north of Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 68000 SPEED (MPH): 55 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.88

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
178.0	375.0	803.9	1729.6

TABLE 2030 w/o Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Magic Mtn. and Valencia
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 57000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
134.4	283.8	608.7	1309.9

TABLE 2030 w/o Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Valencia and Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 40500 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): 30 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
108.6	226.7	485.0	1043.2

TABLE 2030 w/o Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Orchard Village and Rockwell Cyn.
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 32000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.20

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
94.1	194.4	414.8	891.7

TABLE 2030 w/o Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean west of Rockwell Cyn.
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 48000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.96

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
120.6	253.5	543.0	1168.2

TABLE 2030 w/o Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn west of McBean
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
105.0	223.5	480.2	1033.7

TABLE 2030 w/o Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn between McBean and Valencia
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 46500 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
97.7	207.5	445.7	959.5

TABLE 2030 w/o Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn east of Valencia
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 53000 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) = 73.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
106.3	226.3	486.3	1046.9

TABLE 2030 w/o Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia west of McBean
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 69000 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): 30 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.54

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
151.8	322.0	691.2	1487.7

TABLE 2030 w/o Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia between McBean and Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 51500 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.27

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
126.1	265.5	569.0	1224.3

TABLE 2030 w/o Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia east of Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 55000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.55

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
131.4	277.2	594.4	1279.1

TABLE 2030 w/o Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Orchard Village between McBean and Wiley Cyn.
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 42000 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) = 72.04

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
91.5	194.0	416.5	896.6

TABLE 2030 w/o Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Orchard Village between Wiley Cyn. and Lyons
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
69.2	145.0	310.5	668.0

TABLE 2030 w/o Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn between Lyons and Tournement
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 24000 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) = 69.61

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
64.3	134.3	287.1	617.5

TABLE 2030 w/o Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn between Tournement and Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
61.0	126.8	271.0	582.8

TABLE 2030 w/o Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn east of Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 70.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
69.2	145.0	310.5	668.0

TABLE 2030 w/o Project-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons west of Wiley Cyn
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
105.0	223.5	480.2	1033.7

TABLE 2030 w/o Project-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons between Wiley Cyn and Orchard Village Rd.
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
94.3	200.1	429.6	924.8

TABLE 2030 w/o Project-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons between Orchard Village Rd. and Newhall
NOTES: Henry Mayo Hospital General Plan - 2030 w/o Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 50000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.80

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
102.3	217.8	467.8	1007.1

HENRY MAYO HOSPITAL

FHWA ROADWAY NOISE LEVEL ANALYSIS

CONTOUR6 MODEL PRINTOUTS

LONG RANGE YEAR (2030) WITH PROJECT SCENARIO

TABLE 2030 with Project-01
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean north of Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 69000 SPEED (MPH): 55 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.94

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
179.7	378.7	811.7	1746.5

TABLE 2030 with Project-02
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Magic Mtn. and Valencia
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 57000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
134.4	283.8	608.7	1309.9

TABLE 2030 with Project-03
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Valencia and Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 42000 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): 30 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
111.0	232.2	496.9	1068.8

TABLE 2030 with Project-04
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean between Orchard Village and Rockwell Cyn.
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 36000 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): 30 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 71.71

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
101.0	209.9	448.5	964.5

TABLE 2030 with Project-05
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: McBean west of Rockwell Cyn.
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 51000 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): 30 SITE CHARACTERISTICS: SOFT

---

* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
125.3	263.8	565.3	1216.3

TABLE 2030 with Project-06
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn west of McBean
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
105.0	223.5	480.2	1033.7

TABLE 2030 with Project-07
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn between McBean and Valencia
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 46000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.44

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
97.0	206.1	442.5	952.6

TABLE 2030 with Project-08
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Magic Mtn east of Valencia
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 53000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.05

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
106.3	226.3	486.3	1046.9

TABLE 2030 with Project-09
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia west of McBean
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 68000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 74.48

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
150.4	318.9	684.5	1473.3

TABLE 2030 with Project-10
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia between McBean and Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52500 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.35

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
127.6	268.9	576.3	1240.1

TABLE 2030 with Project-11
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Valencia east of Magic Mtn.
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 56000 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): 30 SITE CHARACTERISTICS: SOFT

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 73.63

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
132.9	280.5	601.6	1294.5

TABLE 2030 with Project-12
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Orchard Village between McBean and Wiley Cyn.
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44000 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) = 72.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
94.3	200.1	429.6	924.8

TABLE 2030 with Project-13
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Orchard Village between Wiley Cyn. and Lyons
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 27000 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) = 70.12

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
69.2	145.0	310.5	668.0

TABLE 2030 with Project-14
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn between Lyons and Tournement
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 25000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 69.79

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
66.0	137.9	295.0	634.6

TABLE 2030 with Project-15
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn between Tournement and Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 22000 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) = 69.23

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
61.0	126.8	271.0	582.8

TABLE 2030 with Project-16
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Wiley Cyn east of Orchard Village
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 28000 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) = 70.28

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
70.8	148.5	318.1	684.3

TABLE 2030 with Project-17
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons west of Wiley Cyn
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 52000 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) = 72.97

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL			
70 CNEL	65 CNEL	60 CNEL	55 CNEL
105.0	223.5	480.2	1033.7

TABLE 2030 with Project-18
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons between Wiley Cyn and Orchard Village Rd.
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

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* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 44000 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) = 72.24

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL

70 CNEL	65 CNEL	60 CNEL	55 CNEL
94.3	200.1	429.6	924.8

TABLE 2030 with Project-19
FHWA ROADWAY NOISE LEVEL ANALYSIS

RUN DATE: 06/09/2008
ROADWAY SEGMENT: Lyons between Orchard Village Rd. and Newhall
NOTES: Henry Mayo Hospital General Plan - 2030 with Project

---

* * ASSUMPTIONS * *

AVERAGE DAILY TRAFFIC: 51000 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

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* * CALCULATED NOISE LEVELS * *

CNEL AT 50 FT FROM NEAR TRAVEL LANE CENTERLINE (dB) = 72.89

DISTANCE (FEET) FROM ROADWAY CENTERLINE TO CNEL 70 CNEL	65 CNEL	60 CNEL	55 CNEL
103.7	220.6	474.0	1020.4
