

NATURAL ENVIRONMENT & HAZARDS ELEMENT

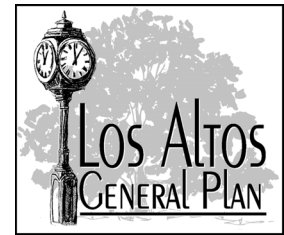


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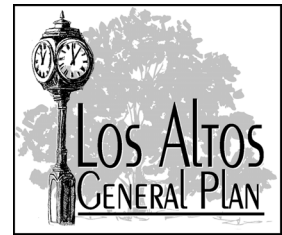
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NATURAL ENVIRONMENT & HAZARDS ELEMENT



INTRODUCTION

Natural events and conditions such as earthquakes, landslides, flooding, and fire can endanger human life and property, while hazardous conditions due to human activity, such as noise and air pollutants, can impact community safety and quality of life. Los Altos seeks to protect the community from unreasonable risks associated with natural hazards and to minimize the hazards associated with human activities. The Natural Environment & Hazards Element establishes goals, policies and a plan for that purpose.

PURPOSE OF THE NATURAL ENVIRONMENT & HAZARDS ELEMENT

The purpose of the Natural Environment & Hazards Element is to identify and address those features or characteristics in or near the City's planning area, which represent a potential hazard to the people, property, and/or infrastructure in Los Altos. Goals and policies in the element are intended to protect the community from injury, loss of life, property damage, and deteriorating quality of life resulting from natural hazards and hazards relating to human activity.

SCOPE AND CONTENT OF THE NATURAL ENVIRONMENT & HAZARDS ELEMENT

The Los Altos Natural Environment & Hazards Element satisfies the requirements of two state-mandated components of the General Plan: the Safety Element and the Noise Element. Air quality is also addressed in this element to comply with the requirements of the Bay Area Air Quality Management District (BAAQMD).

According to Government Code Section 65302(g), the Safety Element establishes policies and programs to protect the community from risks associated with seismic, geologic, flood, and fire hazards. Specifically, the element must cover the following topics:

- ❖ Seismically induced conditions including ground shaking, surface rupture, ground failure, tsunami, and seiche;
- ❖ Slope instability leading to mudslides and landslides;
- ❖ Subsidence and other geologic hazards;
- ❖ Wildland and urban fires; and
- ❖ Evacuation routes.

As specified in Government Code Section 65302(f), the Noise Element must identify and appraise noise problems in the community to ensure acceptable levels of noise exposure. Existing (baseline) and future noise conditions are quantified as noise exposure contours. This information serves as the basis to develop guidelines for compatible land uses.

The Natural Environment & Hazards Element is comprised of four sections: 1) Introduction, 2) the Natural Environment & Hazards Plan; 3) Issues, Goals and Policies; and 4) Implementation Programs Appendix. The Plan provides background information and explains how the goals and policies will be achieved and implemented. In the Issues, Goals and Policies section, natural hazards and hazards associated with human activity are identified and related goals and policies are established to address these issues. The goals, which are overall statements of the community's desires, are comprised of broad statements of purpose and direction. The policies serve as guides for determining acceptable risks/impacts, regulating development in hazard-prone areas, reducing or avoiding adverse effects,



and ensuring land use compatibility. The Natural Environment & Hazards Implementation Programs Appendix identifies the specific implementation programs for this element.

RELATED LAWS, PLANS AND PROGRAMS

There are a number of existing plans and programs that directly relate to the goals of the Natural Environment & Hazards Element. Enacted through state and local action, these plans and programs are administered by agencies with responsibility for their enforcement.

California Environmental Quality Act

The California Environmental Quality Act (CEQA) was adopted by the state legislature in response to a public mandate for a thorough environmental analysis of projects that might adversely affect the environment. The provisions of the law, review procedure and any subsequent analysis are described in the CEQA Statutes and Guidelines as amended in 1998. Safety hazards, as well as noise and air quality impacts are recognized as environmental impacts under CEQA.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act requires the state Geologist to identify earthquake fault zones along traces of both recently and potentially active major faults. Cities and counties that contain such zones must inform the public regarding zone location.

Seismic Hazards Mapping Act

Pursuant to the Seismic Hazards Mapping Act, the state Geologist compiles maps identifying seismic hazard zones. Development in seismic hazard areas is subject to policies and criteria established by the State Mining and Geology Board. Additionally, approval of development on a site within a seismic hazard area mandates the preparation of a geotechnical report and local agency consideration of compliance with applicable state requirements.

Landslide Hazard Identification Program

The Landslide Hazard Identification Program requires the state Geologist to prepare maps of landslide hazards within urbanizing areas.

Colbey-Alquist Floodplain Management Act

The Colbey-Alquist Floodplain Management Act encourages local governments to plan, adopt and enforce land use regulations for floodplain management, in order to protect people and property from flooding hazards. This act also identifies requirements which jurisdictions must meet in order to receive state financial assistance for flood control.

Santa Clara Valley Water District

The Santa Clara Valley Water District is a special district with responsibility for water supply, flood protection and watershed management in Santa Clara County.

Santa Clara County General Plan Safety Element

The Santa Clara County General Plan Safety Element identifies geologic and other natural hazards. A key strategy of the element for reducing the potential risks to life and property from natural hazards is to minimize the number of people who permanently reside in high hazard areas.



Los Altos Flood Hazard Area Regulations Ordinance

The City's Flood Hazard Area Regulations (adopted as part of the Municipal Code) establish regulations of use, structures, grading and streambed alteration within designated flood, flood-related erosion, and mudslide hazard areas. These provisions apply to property identified in the Flood Insurance Study for the City of Los Altos (dated July 16, 1980) and the Flood Insurance Rate Map generated by the Federal Emergency Management Agency.

Hazardous Waste Management Plan

The Santa Clara County Hazardous Waste Management Plan provides basic policy direction to address current and future hazardous waste management issues. All facilities and personnel of the County and affected cities are organized in the plan to effectively respond to hazardous materials emergencies.

California Noise Insulation Standards

The California Commission of Housing and Community Development officially adopted noise insulation standards in 1974. Revised in 1988, the standards established an interior noise standard of 45 dBA for residential space (CNEL or Ldn). Acoustical studies are required for residential structures proposed within noise contours of 60 dBA or greater from industrial or transportation noise sources to demonstrate compliance with interior noise standards.

Uniform Building Code

The Uniform Building Code includes Sound Transmission Control standards for building construction under Appendix 12, Division 2/2a.

Los Altos Noise Control Ordinance

The City's Noise Ordinance (adopted as part of the Municipal Code) establishes interior and exterior noise standards for daytime and nighttime hours by zoning district, identifies prohibited acts relative to noise, including maximum noise levels for mobile and stationary noise sources, and special exemptions. Noise Ordinance requirements are identified in this Element.

Federal Clean Air Act

The Federal Clean Air Act established National Ambient Air Quality Standards (NAAQS) in 1970 for six pollutants: carbon monoxide, ozone, particulates, nitrogen dioxide, sulfur dioxide, and lead. The Act requires states with air pollution that exceeds the NAAQS to prepare air quality plans demonstrating how the standards would be met (State Implementation Plans-SIPs). In 1990, amendments to the Act established categories of severity for non-attainment areas ("marginal" to "extreme"). In 1994, the California Air Resources Board adopted a revised State Implementation Plan for ozone to meet the requirements of the 1990 amendments.

California Clean Air Act

The California Clean Air Act (CCAA) was enacted in 1988 requiring attainment of California's ambient air quality standards. Amended in 1992 and 1996, the state's ambient air quality standard are more stringent than the national standards. In general, the CCAA requires regions whose air quality exceeds state standards to reduce pollutants by five percent or more per year, or to implement all feasible measures to meet the state air quality standards as expeditiously as possible.



Emergency Preparedness Plan

The City adopted an Emergency Preparedness Plan outlining disaster response that will minimize harmful impacts. The plan is implemented by the local Police and Fire Departments, in conjunction with the Santa Clara County Office of Emergency Services. The disaster plan conforms to state requirements in designating the emergency operations center and emergency shelters, assigning duties to City staff, identifying critical facilities (e.g., medical buildings and utilities), and establishing an emergency broadcast system. The Disaster Preparedness Committee functions to support the Plan, develop implementation programs to educate community members, and to advise the City Council on the Community Emergency Response Team and disaster preparedness projects.



RELATIONSHIP TO OTHER GENERAL PLAN ELEMENTS

According to state planning law, the Natural Environment & Hazards Element must be consistent with the other General Plan elements. While all of the elements are interdependent, they are also interrelated to a degree. Certain goals and policies of each element may also address issues that are primary subjects of other elements. This integration of issues throughout the General Plan creates a strong basis for the implementation of plans and programs and achievement of community goals. The Natural Environment & Hazards Element is most directly related to Land Use, Housing, and Open Space, Conservation & Community Facilities Elements.



NATURAL ENVIRONMENT & HAZARDS PLAN

As in all communities, natural conditions and human activities occur in Los Altos which have an effect on the quality of life of its residents. Reducing the risks associated with such hazards and being prepared for emergency situations is essential for creating an attractive and healthy environment for residences and businesses within the City. This section of the Natural Environment & Hazards Element identifies the City's approach for reducing potential hazards from natural conditions and human activities, along with the City's emergency preparedness plan. The Plan is based on goals and policies identified in the subsequent section of this element.

SEISMIC AND GEOLOGIC HAZARDS

The City of Los Altos is located in a region with active seismic faults and is therefore subject to risk of hazards associated with earthquakes. Seismic activity poses two types of hazards: primary and secondary. Primary hazards include ground rupture, ground shaking, ground displacement, and subsidence and uplift from earth movement. Primary hazards can induce secondary hazards including ground failure (lurch cracking, lateral spreading, and slope failure), liquefaction, water waves (tsunamis and seiches), movement on nearby faults (sympathetic fault movement), dam failure and fires.

No known active faults traverse Los Altos planning area and no Alquist-Priolo Earthquake Fault Zoning has been established by the state. However, the city is located between the active San Andreas and Hayward faults, as well as numerous smaller faults.

Ground Rupture: Because there are no active faults within the planning area, the potential for ground rupture and ground failure is low.

Ground Shaking: Given the City's proximity to active faults in the region, seismic ground shaking could damage buildings and cause objects to fall, creating hazards to life and property.

According to the 1996 U.S. Geological Survey shaking-hazard map, Los Altos, like most of the Bay Area and coastal California, has the highest hazard level for ground shaking. Los Altos has a ground motion hazard value used to establish construction requirements, determine insurance rates, estimate landslide potential, and allocate federal assistance funds.

In a probable earthquake scenario, the majority of one- and two-story wood structures in the planning area would not sustain serious damage. Older, unreinforced masonry buildings in the downtown area that were built prior to improved building codes may be subject to severe damage or collapse in the event of an earthquake.

Slope Failure: Landslides are most likely on hillsides where rock strata parallels surface slopes, high clay content absorbs excess water, displacement has fractured a fault zone, or the base of a slope has been removed by erosion or people.

Landslides are unlikely to occur where slopes are less than 15 percent. Within the Los Altos planning area, slopes that are 15 percent or more are isolated to the southwest portions of the City (See Figure NEH-1). While there are no recent examples of landslides in the planning area, development on such slopes should be carefully reviewed for mitigation of landslide risks.



Liquefaction: Liquefaction occurs primarily in areas of recently deposited sands and silts with poorly consolidated sediment and in areas of high groundwater levels. Los Altos sits on the very deep alluvial soils of the Santa Clara Valley floor. These soils, consisting of silt, clay, sand, and gravel deposits, extend to a depth of 4,000 to 5,000 feet throughout most of the city. Although severe ground motion resulting from an earthquake would be apparent in Los Altos because of the depth of the loosely consolidated soils, damage generally would not be serious to the predominant one- or two-story wood frame structures.

Tsunami/Seiche: Los Altos is located five to six miles from the Bay with an elevation of 150 feet or more above sea level. Consequently, potential hazards associated with water waves are not likely.

Earthquake preparedness is one of the best methods to minimize personal injury and property damage and accelerate recovery. The City will continue to promote earthquake preparedness in the community through its Emergency Preparedness Plan and mock exercises coordinated through the Emergency Preparedness Committee.

FLOOD HAZARDS

Flood hazards fall into three categories: natural flooding, dam inundation, and mud and debris flows. Los Altos is subject to periodic flood hazards associated with creek overflow, dam inundation, and potential mud and debris flows during rain storms of a few hillsides within the planning area. The Los Altos planning area contains both 100- and 500-year floodplain areas as shown on Figure NEH-1.

Natural Flooding

Natural flooding occurs when major rainstorms cause stream overflows. Portions of the four creeks flowing through Los Altos have been channelized to increase the capacity of the creeks to reduce flooding and to permit development of the flood plain. Further channelization is not recommended for any of the creeks in Los Altos because of the conflict with preservation of natural resources.

Adobe Creek is the most flood-prone of Los Altos creeks. The Santa Clara Valley Water district has requested the City to require setbacks along the creek and to require property owners to dedicate an easement or fee title to the District. In accordance with the adopted watercourse protection regulations, special setbacks are required and development restrictions applied along Adobe Creek from Shoup Park to O'Keefe Lane.

Dam Inundation

Dam inundation could occur with the failure of the Stevens Creek Dam. California Government Code Section 8589.5 requires the city to have in place emergency procedures for the evacuation and control of populated areas within the limits of inundation below dams. In addition, real estate disclosure upon sale or transfer of property in the inundation area is required under AB 1195 Chapter 65 passed in June 1998.

Los Altos participates in the National Flood Insurance Program (NFIP), which is administered by the Federal Emergency Management Agency (FEMA). The NFI program provides federal flood insurance and federally financed loans for property owners in flood prone areas. To qualify for federal flood insurance, the City must identify flood hazard area and implement a system of protective controls. See Figure NEH-1.

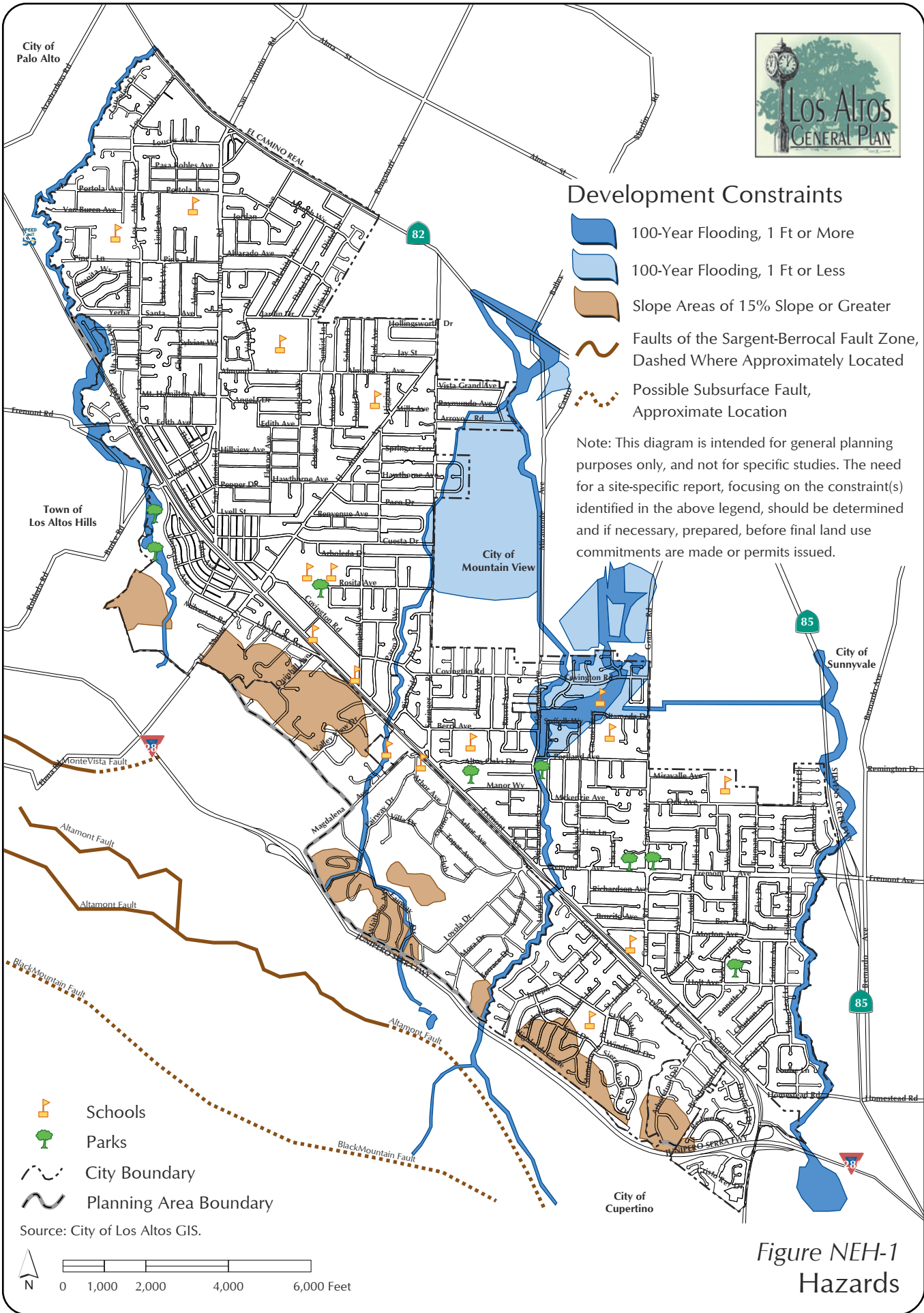


Figure NEH-1
Hazards



Mud and Debris Flows

Mud and debris flows originate in hillside areas having deep top soils with poor drainage. The majority of the Los Altos planning area is relatively flat terrain that is not subject to mud and debris flows. The rolling terrain in the southwest portion of the planning area contains deep soils consisting of silt, clay, sand, and gravel deposits. While there are no recent examples of mud or debris flows in the planning area, development in the southwest slopes should be carefully reviewed for mitigation of mud and debris flow risks.

The City will reduce the potential for flood hazards by implementing the adopted flood hazard area regulations for designated floodways, mudflow prone areas, and flood-related erosion prone areas.

FIRE HAZARDS

Wildland fire hazards are not a major concern in Los Altos because the community is urbanized and most of the natural vegetation is isolated in small areas. Urban fire hazards in Los Altos are concentrated primarily in dense non-residential areas with limited landscape and separation between structures.

The City will reduce the potential for dangerous fires by coordinating with the Santa Clara County Fire Department to implement fire hazard education and fire protection programs. The City will also ensure that construction is consistent with the current Uniform Fire Code and that water pressure is adequate for fire fighting purposes.

HAZARDOUS MATERIALS

In Los Altos, commercial businesses that use hazardous materials include, but are not limited to, dry cleaners, film processors, auto service providers, and medical clinics.

Residences also generate household hazardous wastes in the form of paints, thinners, pesticides, fertilizers, etc.

Hazardous waste generators and users in the City are required to comply with regulations enforced by several federal, state, and county agencies. The regulations aim toward reducing risk associated with human exposure to hazardous materials and minimizing adverse environmental effects. Los Altos contracts with the Santa Clara County Fire Department for fire protection services. The Fire Department conducts inspections related to hazardous materials. The Hazardous Materials Compliance Division of the County Environmental Health Services Department ensures compliance and reporting in accordance with the Santa Clara County Hazardous Waste Management Plan.

Hazardous materials also pass through the City in route to other designations via the freeway, rail, and surface street system. The Department of Transportation (DOT) regulates the transport of hazardous materials on state highways and rail lines using established criteria for safe handling procedures. Federal safety standards are also included in the California Administrative Code and the California Health Services Department regulates the haulers of hazardous waste.

EMERGENCY PREPAREDNESS

The first line of defense against any catastrophe is to avoid threatening situations and to prepare disaster response plans that will minimize the harmful impacts. Quick action in the event of an emergency will reduce the probability of additional injuries and damage.

Government disaster preparedness planning efforts are handled primarily by the police departments and the County Office of Emergency Services. The County and each city are required to prepare disaster plans in



accordance with state regulations, to assign duties for emergency response, to designate an emergency operations center and emergency shelters, and to establish an emergency broadcast system.

The City adopted an Emergency Preparedness Plan identifying potential risks, facilities and resources relied upon in the event of a catastrophe, and persons responsible for implementation. The City's Emergency Preparedness Committee determines the appropriate means of community support, develops and implements programs to educate and prepare the community for emergencies, and advises the City Council. The Emergency Preparedness Plan should be updated and coordinated with appropriate county and regional agencies.

NOISE

In Los Altos, the predominant source of noise is transportation-related noise from vehicle and truck traffic on the City's road system. Commercial noise sources in Los Altos are not significant enough to warrant identification as significant stationary noise sources. In order to minimize impacts associated with transportation-related noise sources, residential development and redevelopment proposed within areas where a noise of 60 dBA is or will be exceeded should conduct acoustical analysis to ensure compliance with the City's noise level standards.

Noise is generally defined as unwanted sound – unwanted being dependent on when and where the sound occurs, what the listener is doing, characteristics of the sound, and how intrusive it is above background sound levels. Noise hazards are a function of increasing mechanization, with noise being principally produced by machines for transportation and production. In Los Altos, traffic movement on the City's road system is the predominant source of noise.

Noise levels are measured on a logarithmic scale in decibels which are then weighted and added over a 24-hour period to reflect not only the magnitude of the sound but also its duration, frequency, and time of occurrence. In this manner, various acoustical scales and units of measurement have been developed such as equivalent sound levels (Leq), day-night average sound levels (Ldn) and Community Noise Equivalent Levels (CNEL).

These measurements become the basis for setting acceptable standards at sensitive noise receptors and identifying potential noise generators. The State of California Office of Noise Control, in its Land Use Compatibility Standards table (Table NEH-1), defines an outdoor level of Ldn 60 dBA or less as being "normally acceptable" for residential uses, schools, libraries, churches, and hospitals. This standard also intends to provide for interior noise levels no greater than 45 dBA (Ldn), which is generally accepted as the maximum acceptable noise level for most indoor residential activities. Maximum noise exposure levels acceptable in Los Altos are consistent with the standards in Table NEH-1.


In 1974, the state adopted Noise Insulation Standards (Chapter 2-35 of Title 24) for new hotels, motels, and dwellings other than single family detached dwellings. Those standards established 45 dBA (Ldn) as the maximum interior sound level (attributable to exterior sources) in any room. Where exterior sound levels are 60 dBA (Ldn) or above, acoustical analyses for projects are required to ensure that the structure has been designed to limit outside noise to the allowable interior levels.

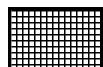


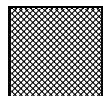
**Table NEH-1
Land Use Compatibility Standards**


Land Use	Community Noise Exposure (Ldn or CNEL)					
	55	60	65	70	75	80
Residential	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Transient Lodging – Motel, Hotel	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Sports Arena, Outdoor Spectator Sports	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Playgrounds, Parks	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Golf Course, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial, and Professional	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable

Source: Modified by CBA from 1998 State of California General Plan Guidelines.

 **Normally Acceptable:** Specified land use is satisfactory, based upon the assumption that any buildings involved meet conventional Title 24 construction standards. No special noise insulation requirements.

 **Conditionally Acceptable:** New construction or development shall be undertaken only after a detailed noise analysis is made and noise reduction measures are identified and included in the project design.

 **Normally Unacceptable:** New construction or development is discouraged. If new construction is proposed, a detailed analysis is required, noise reduction measures must be identified, and noise insulation features included in the design.

 **Clearly Unacceptable:** New construction or development should not be undertaken.



Title 24 also includes standards to be met for sound transmission between units. Multi-family attached units must incorporate noise reduction features sufficient to assure that interior noise levels in all habitable rooms do not exceed 45 dBA.

Existing Noise Sources in Los Altos

Noise emanates from stationary and mobile sources. Fixed sources include construction, refrigeration units, radio or television, loud speakers, power tools (including leaf blowers), and animals. Mobile noise sources typically are transportation related. In Los Altos, motor vehicles on the City's roadway system are the major source of continuous noise.

The state's planning laws require identification of areas exposed to high noise levels. "Noise exposure areas" are defined as those areas where noise levels exceed 60 dBA (Ldn). In Los Altos, these noise exposure areas exist along some collector streets, minor arterials, and principal arterials with high traffic volumes and relatively high speeds. The distance from the road centerline to points at which noise levels are 80, 75, 70, 65, and 60 dBA have been calculated from the 2001 Average Daily Traffic (ADT) for arterials and collectors throughout Los Altos. Assumptions and results are listed in Table NEH-2 and shown in Figure NEH-2.

No commercial or industrial uses have been identified to be major on-going noise sources for which noise contours need to be prepared.

Projected Future Noise Sources

Growth in and near Los Altos will generate increased traffic volumes and thereby increase the exposure to high noise levels. Resulting future noise contours for the year 2025 are shown in Table NEH-3 and Figure NEH-3.

Land use planning, with appropriate noise reduction mitigation, will establish land use, site, and building design acceptable for new development adjacent to major roadways. Acoustic architectural design, involving site plans, building heights, room arrangements, window size, balcony and courtyard design, and acoustic construction, involving treatment of various parts of a building to reduce interior noise levels, shall be considered in mitigating noise hazards at new developments.

Noise barriers should be considered when other mitigation is infeasible. Ideally, noise barriers will incorporate berms, walls, and appropriate landscaping to reduce the visual impact of the sound walls.

Certain areas within Los Altos are subject to high noise levels. The primary noise source impacting Los Altos results from transportation-related activities, especially along major transportation corridors. Other noise sources not related to transportation include construction, business operation, recreational activities, and property maintenance. Consideration of the sources and recipients of noise early in the land use planning and development process can be an effective method of minimizing the impact of noise on people in the community. Consideration may be given to reducing noise in areas already impacted by noise through rehabilitative improvements and enforcement of local noise regulations.





Table NEH-2
Distance to Existing CNEL Contour Lines

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Existing Contours From Near Lane Centerline, feet					
					Med/Heavy	2001	2001	60dB	65dB	70dB
Almond Avenue:										
E of San Antonio	25	1.8/0.7%	7,380	61.0	62	--	--	--	--	--
E of Solana	25	1.8/0.7%	6,010	60.0	50	--	--	--	--	--
Covington Road:										
E of El Monte	25	1.8/0.7%	3,610	58.0	--	--	--	--	--	--
W of Springer	25	1.8/0.7%	2,670	57.0	--	--	--	--	--	--
E of Springer	25	1.8/0.7%	5,220	59.5	--	--	--	--	--	--
E of Miramonte	25	1.8/0.7%	5,910	60.0	50	--	--	--	--	--
Cristo Rey Drive:										
W of Foothill	30	1.8/0.7%	6,950	64.0	110	--	--	--	--	--
Cuesta Drive:										
E of El Monte	25	1.8/0.7%	8,540	61.5	69	--	--	--	--	--
San Antonio - El Monte	25	1.8/0.7%	5,830	60.0	50	--	--	--	--	--
Distel Drive:										
S of El Camino Real	25	1.8/0.7%	2,190	56.5	--	--	--	--	--	--
Edith Avenue:										
Los Altos - San Antonio	25	1.8/0.7%	7,210	61.0	62	--	--	--	--	--
El Monte Avenue:										
S of Foothill Expy.	25	2.0/2.0%	31,180	69.0	255	110	--	--	--	--
N of Foothill Expy.	25	1.8/0.7%	14,660	64.0	110	--	--	--	--	--
S of Jay	25	1.8/0.7%	12,290	63.0	90	--	--	--	--	--
Fallen Leaf Lane:										
N of Fremont	25	1.8/0.7%	1,180	54.0	--	--	--	--	--	--
S of Fremont	25	1.8/0.7%	2,860	57.5	--	--	--	--	--	--
N of Homestead	25	1.8/0.7%	1,410	54.5	--	--	--	--	--	--
Fremont Avenue:										
Miramonte - Grant	35	1.8/0.7%	9,360	65.0	130	50	--	--	--	--
Grant - Truman	35	1.8/0.7%	17,500	67.5	200	83	--	--	--	--
E of Truman	35	1.8/0.7%	23,470	69.0	255	110	--	--	--	--
Granger Avenue:										
N of Grant	25	1.8/0.7%	1,510	55.0	--	--	--	--	--	--
Grant Road:										
Foothill Exwy. - Morton	25	1.8/0.7%	14,120	63.5	100	--	--	--	--	--
Morton - Fremont	25	1.8/0.7%	11,880	63.0	90	--	--	--	--	--
Morton - Fremont	35	1.8/0.7%	21,370	68.5	235	100	--	--	--	--
N of Fremont	35	1.8/0.7%	24,200	69.0	255	110	--	--	--	--
S of North City Limits										
Homestead Road:										
S of Grant	35	1.8/0.7%	4,030	61.5	69	--	--	--	--	--
W of SR-85	35	1.8/0.7%	15,660	67.0	185	75	--	--	--	--
Jordan Avenue:										
S of El Camino Real	25	1.8/0.7%	2,890	57.5	--	--	--	--	--	--



**Table NEH-2
Distance to Existing CNEL Contour Lines**

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Existing Contours From Near Lane Centerline, feet				
		Med/Heavy	2001	2001	60dB	65dB	70dB	75dB	80dB
Los Altos Avenue:									
S of El Camino	25	1.8/0.7%	5,240	59.5	--	--	--	--	--
Real	25	1.8/0.7%	4,540	59.0	--	--	--	--	--
Louck – Pine	25	1.8/0.7%	5,690	60.0	50	--	--	--	--
Pine – Edith	25	1.8/0.7%	6,680	60.5	56	--	--	--	--
Edith – Main	25	1.8/0.7%	6,590	60.5	56	--	--	--	--
Main – San Antonio									
Main Street:									
Los Altos – San Antonio	25	1.8/0.7%	9,710	62.0	75	--	--	--	--
Miramonte Avenue:									
N of Fremont Avenue	25	1.8/0.7%	11,880	63.0	90	--	--	--	--
S of North City Limits	35	1.8/0.7%	11,610	66.0	155	62	--	--	--
Oak Avenue:									
E of Grant	25	1.8/0.7%	2,650	57.0	--	--	--	--	--
Portland Avenue:									
E of Miramonte	25	1.8/0.7%	3,360	58.0	--	--	--	--	--
Saint Joseph Avenue:									
S. of Foothill Exwy	25	1.8/0.7%	5,380	60.0	50	--	--	--	--
San Antonio Road:									
S of El Camino	35	2.0/2.0%	29,150	69.5	278	120	--	--	--
Real	35	2.0/2.0%	29,710	70.0	300	130	50	--	--
Loucks – Almond	35	2.0/2.0%	32,000	70.0	300	130	50	--	--
Almond – Hillview	35	2.0/2.0%	20,970	68.5	235	100	--	--	--
Hillview – Foothill Exwy									
Sherwood Avenue:									
E of San Antonio	25	1.8/0.7%	2,460	56.5	--	--	--	--	--
Springer Road:									
N of Foothill Exwy.	30	1.8/0.7%	12,930	65.5	143	56	--	--	--
S of El Monte	30	1.8/0.7%	8,990	64.0	110	--	--	--	--
Truman Avenue:									
N of Fremont	25	1.8/0.7%	4,800	59.5	--	--	--	--	--
S of Fremont	25	1.8/0.7%	380	50.0	--	--	--	--	--
University Avenue:									
W of El Monte	25	1.8/0.7%	3,040	57.5	--	--	--	--	--



Table NEH-2
Distance to Existing CNEL Contour Lines

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Existing Contours From Near Lane Centerline, feet					
					Med/Heavy	2001	2001	60dB	65dB	70dB
SR-82:										
S of El Monte	35	3.5/0.5%	46,500	71.0	340	155	62	--	--	
N of El Monte	35	3.5/0.5%	46,500	71.0	340	155	62	--	--	
S of San Antonio	35	3.5/0.5%	44,500	71.0	320	143	56	--	--	
N of San Antonio	35	3.5/0.5%	49,700	71.0	340	155	62	--	--	
SR-85:										
I-280 – Homestead	65	1.6/1.6%	118,000	75.0	600	300	130	50	--	
Homestead – Fremont	65	1.6/1.6%	125,000	75.0	600	300	130	50	--	
Fremont – SR-82	65	2.5/2.0%	116,000	75.0	600	300	130	50	--	
I-280:										
SF-85 – Foothill	65	1.9/1.4%	142,000	82.0	1,250	760	395	185	75	
Foothill – Magdalena	65	1.9/1.4%	127,000	75.5	640	320	143	56	--	
Foothill Expressway:										
Homestead – Arboretm	45	2.0/2.0%	40,540	(1) 69/73	(1) --	(1) --	(1) --	--	--	
Arboretm – Grant	45	2.0/2.0%	40,540	69/73	95/140	74/90	--/69	--	--	
Grant – Fremont	45	2.0/2.0%	40,540	69/73	255/140	110/90	--/69	--	--	
Fremont – Springer	45	2.0/2.0%	40,540	73	460	215	90/--	--	--	
Springer – El Monte	45	2.0/2.0%	40,540	69/73	255/460	110	90/--	--	--	
El Monte – San Antonio	45	2.0/2.0%	40,540	69/73	255/460	110	90/--	--	--	
San Antonio – Main	45	2.0/2.0%	40,540	69/73	255/140	110/90	--/69	--	--	
Main – Edith	45	2.0/2.0%	40,540	69/73	460/140	--/90	--/69	--	--	
Edith to Arastadero	45	2.0/2.0%	40,540	69/73	195/140	--/90	--/69	--	--	
<i>Source: Weiland Associates, Inc. 2001</i> (1) numbers in this section represent the west/east sides of the road segment.										

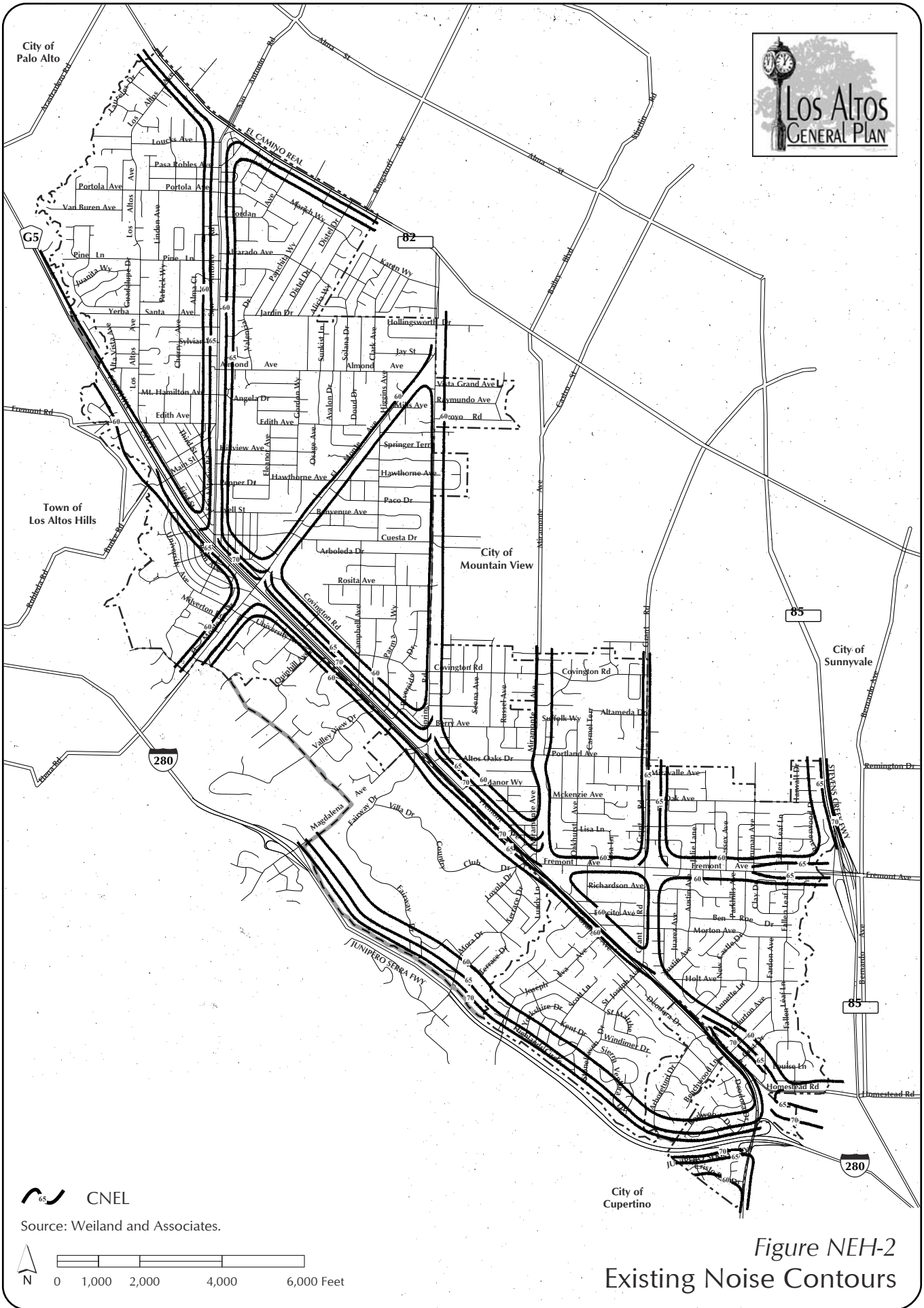


Figure NEH-2
Existing Noise Contours



**Table NEH-3
Distance to Future CNEL Contour Lines**

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Future Contours From Near Lane Centerline, feet					
					Med/Heavy	2025	2025	60dB	65dB	70dB
Almond Avenue:										
E of San Antonio	25	1.8/0.7%	8,920	62.0	75	--	--	--	--	--
E of Solana	25	1.8/0.7%	7,270	61.0	62	--	--	--	--	--
Covington Road:										
El Monte - Fremont	25	1.8/0.7%	6,780	60.5	56	--	--	--	--	--
Riverside - Springer	25	1.8/0.7%	3,020	57.5	--	--	--	--	--	--
Springer - Spencer	25	1.8/0.7%	5,850	60.0	50	--	--	--	--	--
Thatcher - Eastwood	25	1.8/0.7%	6,670	60.5	56	--	--	--	--	--
Cristo Rey Drive:										
Foothill - Friar	35	1.8/0.7%	7,090	64.0	110	--	--	--	--	--
Cuesta Drive:										
Clark - Springer	25	1.8/0.7%	9,650	62.0	75	--	--	--	--	--
El Monte - Gabilan	25	1.8/0.7%	6,590	60.5	56	--	--	--	--	--
Distel Drive:										
ECR - Distel	25	1.8/0.7%	2,230	56.5	--	--	--	--	--	--
Edith Avenue:										
Third - View	25	1.8/0.7%	8,830	61.5	69	--	--	--	--	--
El Monte Avenue:										
University - Milverton	25	2.0/2.0%	35,220	69.5	278	120	--	--	--	--
Giffin - Shirlynn	25	1.8/0.7%	16,580	64.5	120	--	--	--	--	--
Jay - Almond	25	1.8/0.7%	13,890	63.5	100	--	--	--	--	--
Fallen Leaf Lane:										
Fremont - Brookmill	25	1.8/0.7%	1,440	54.5	--	--	--	--	--	--
Fremont - Alexander	25	1.8/0.7%	3,410	58.0	--	--	--	--	--	--
Homestead - Marshall	25	1.8/0.7%	1,470	55.0	--	--	--	--	--	--
Fremont Avenue:										
Grant - Lisa	35	1.8/0.7%	10,560	65.5	130	50	--	--	--	--
Grant - Siesta	35	1.8/0.7%	19,770	68.0	200	83	--	--	--	--
Fallen Leaf - Stevens Creek	35	1.8/0.7%	26,580	69.5	255	110	--	--	--	--
Granger Avenue:										
St Joseph - Sandalwood	25	1.8/0.7%	1,570	55.0	--	--	--	--	--	--
Grant Road:										
Foothill Exwy. - Morton	25	1.8/0.7%	15,970	64.0	110	--	--	--	--	--
	25	1.8/0.7%	13,430	63.5	100	--	--	--	--	--
Fremont - Richardson	35	1.8/0.7%	24,150	69.0	255	110	--	--	--	--
Fremont - Garthwick	35	1.8/0.7%	27,340	69.5	278	120	--	--	--	--
Covington - Levin										
Homestead Road:										
S of Grant	35	1.8/0.7%	4,190	62.0	75	--	--	--	--	--
Fallen Leaf - Stevens Creek	35	1.8/0.7%	16,910	67.5	200	83	--	--	--	--



**Table NEH-3
Distance to Future CNEL Contour Lines**

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Future Contours From Near Lane Centerline, feet				
					Med/Heavy	2025	2025	60dB	65dB
Jordan Avenue: ECR - Marich	25	1.8/0.7%	3,010	57.5	--	--	--	--	--
Los Altos Avenue: ECR - Santa Rita	25	1.8/0.7%	7,220	61.0	62	--	--	--	--
Pine - Spagnoli	25	1.8/0.7%	6,520	60.5	56	--	--	--	--
W. Edith - Mt Hamilton	25	1.8/0.7%	7,050	61.0	62	--	--	--	--
Main Street: Foothill Exwy. - First	25	1.8/0.7%	9,710	62.0	75	--	--	--	--
Miramonte Avenue: A - B	25	1.8/0.7%	13,540	63.5	100	--	--	--	--
Covington - Alegre	35	1.8/0.7%	13,120	66.5	170	69	--	--	--
Oak Avenue: Grant - Braddale	25	1.8/0.7%	2,760	57.0	--	--	--	--	--
Portland Avenue: Grant - Carvo	25	1.8/0.7%	4,050	58.5	--	--	--	--	--
Saint Joseph Avenue: Deodora - Stonehaven	25	1.8/0.7%	5,490	60.0	50	--	--	--	--
San Antonio Road: ECR - Loucks	35	2.0/2.0%	35,970	70.5	320	143	56	--	--
Pine - Arbuelo	35	2.0/2.0%	36,830	70.5	320	143	56	--	--
Edith - Mt. Hamilton	35	2.0/2.0%	39,000	71.0	340	155	62	--	--
Pepper - Hawthorn	35	2.0/2.0%	23,790	69.0	255	110	--	--	--
Sherwood Avenue: San Antonio - Acacia	25	1.8/0.7%	2,930	57.5	--	--	--	--	--
Springer Road: Berry to Fremont	30	1.8/0.7%	14,620	66.0	155	62	--	--	--
Vista Grande - El Monte	30	1.8/0.7%	10,160	64.5	120	--	--	--	--
Truman Avenue: Fremont - Wakefield	25	1.8/0.7%	4,990	59.5	--	--	--	--	--
University Avenue: El Monte - Edgewood	25	1.8/0.7%	3,430	58.0	--	--	--	--	--
SR-82: S of El Monte	35	3.5/0.5%	52,000	71.5	368	170	69	--	--
N of El Monte	35	3.5/0.5%	52,000	71.5	368	170	69	--	--
S of San Antonio	35	3.5/0.5%	50,000	71.0	340	155	62	--	--
N of San Antonio	35	3.5/0.5%	56,000	71.5	368	170	69	--	--
SR-85: I-280 - Homestead	65	1.6/1.6%	130,000	75.5	640	320	143	56	--
Homestead - Fremont	65	1.6/1.6%	137,000	75.5	640	320	143	56	--
Fremont - SR-82	65	2.5/2.0%	128,000	75.5	640	320	143	56	--



**Table NEH-3
Distance to Future CNEL Contour Lines**

Roadway/Reach	Speed Limit mph	% Trucks	Average Daily Traffic	CNEL @ 50' from near lane C/L	Distance to Future Contours From Near Lane Centerline, feet					
					Med/Heavy	2025	2025	60dB	65dB	70dB
I-280:										
SF-85 – Foothill	65	1.9/1.4%	156,000	82.5	1,325	810	428	200	82.5	
Foothill – Magdalena	65	1.9/1.4%	139,000	78.0	860	460	215	90	--	
Foothill Expressway:				(1)	(1)	(1)	(1)			
Homestead – Arboretm	45	2.0/2.0%	40,540	69/73	255/460	110/215	-/90	--	--	
Arboretm – Grant	45	2.0/2.0%	40,540	69/73	95/140	74/90	--/69	--	--	
Grant – Fremont	45	2.0/2.0%	40,540	69/73	255/140	110/90	--/69	--	--	
Fremont – Springer	45	2.0/2.0%	40,540	73	460	215	90/--	--	--	
Springer – El Monte	45	2.0/2.0%	40,540	69/73	255/460	110	90/--	--	--	
El Monte – San Antonio	45	2.0/2.0%	40,540	69/73	255/460	110	90/--	--	--	
San Antonio – Main	45	2.0/2.0%	40,540	69/73	255/140	110/90	--/69	--	--	
Main – Edith	45	2.0/2.0%	40,540	69/73	460/140	--/90	--/69	--	--	
Edith to Arastadero	45	2.0/2.0%	40,540	69/73	195/140	--/90	--/69	--	--	
<i>Source: Weiland Associates, Inc. 2001</i>										
(1) numbers in this section represent the west/east sides of the road segment.										

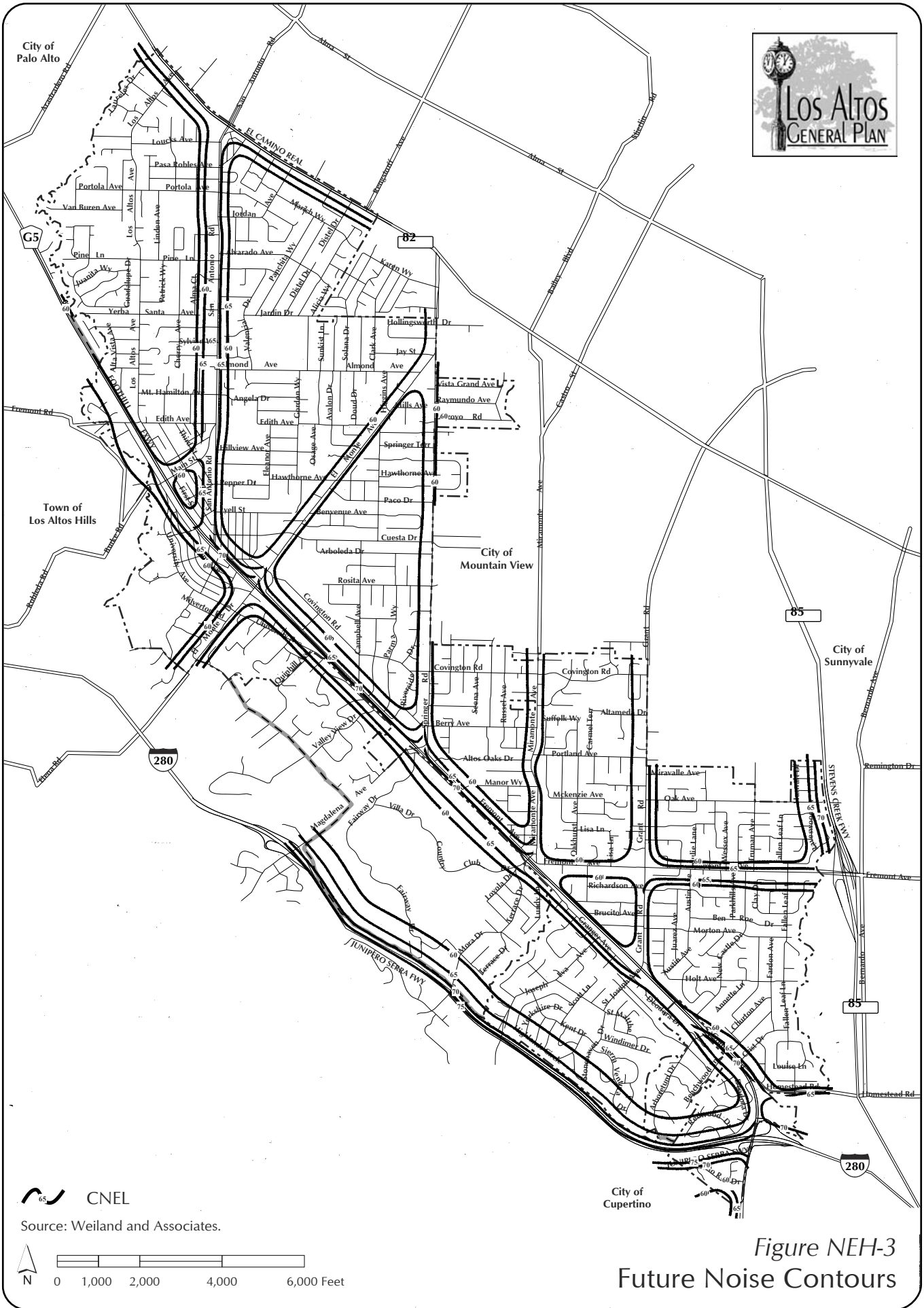


Figure NEH-3
Future Noise Contours



AIR QUALITY

The City of Los Altos is located within the Bay Area Air Quality Management District (BAAQMD). The district is governed by a 21-member Board of Directors, responsible for developing and enforcing regulations to control air pollution. Air pollutants regulated by the district include:

Particulate matter

- ❖ Organic compounds
- ❖ Nitrogen oxides
- ❖ Sulfur dioxide/oxides
- ❖ Carbon monoxide
- ❖ Hydrogen sulfide
- ❖ Photochemical smog
- ❖ Acid deposition

The generation of air pollutants degrade the air quality and can pose a significant health hazard. Air pollutants are closely linked to land use, transportation, and energy use planning. Daily automobile travel from suburban areas to the employment centers of Santa Clara County is the primary cause of air pollution in the subregion. Planning that can reduce the overall vehicle miles traveled (VMT) will also reduce the amount of air pollutants generated. In addition, air movement patterns in the Bay Area carry air pollutants from north to south. The Santa Clara Valley thereby receives the accumulated air pollution from its neighbors to the north.

The Bay Area experienced 12 days of ozone non-attainment in 2000, down from 20 days in 1999. The monitoring station in Mountain View near Los Altos registered seven days of ozone non-attainment in 1999 and the monitoring station was out of service in 2000. Unless federal legislation is changed, non-compliance with federal standards means that the Environmental Protection Agency will cease funding for clean-up of air pollution, ban construction of wastewater treatment facilities, and cease high-water funding.

Air pollution problems in Los Altos are a result of activities in the entire Bay region and cannot be solved at the local level. However, through appropriate land use, transportation, and energy use planning, the City can participate in the most feasible remedies.

Cooperation among all agencies in the BAAQMD is necessary to achieve desired improvements to air quality. Los Altos can participate and contribute its share in those efforts by proper planning for land use and transportation consistent with the most recent Air Quality Management Plan.





ISSUES, GOALS AND POLICIES

Certain natural conditions and human activities in Los Altos create risks to individuals and property within the community. Excessive risk and impact from such hazards can be reduced or avoided through implementation of the Natural Environment & Hazards Element.

Major issues addressed by the goals, policies, and plan of the Natural Environment & Hazards Element are as follows:

- 1) Reducing risk from seismic and geologic hazards;
- 2) Reducing risk from flood hazards;
- 3) Reducing risk from wildland and urban fire hazards;
- 4) Reducing risk associated with hazardous materials;
- 5) Minimizing impacts associated with stationary and transportation-related noise sources;
- 6) Reducing impacts associated with air pollutants;
- 7) Preparing for emergency situations.

Each issue and the related goals and policies are included in this section of the Natural Environment & Hazards Element.

SEISMIC/GEOLOGIC HAZARDS

Due to its geographic location in a seismically active region, Los Altos is subject to several types of seismic hazards. Los Altos lies between the active San Andreas and Hayward faults, as well as numerous

smaller faults. None of the surface traces actually traverse the Los Altos planning area, but any of the surrounding faults could cause ground shaking, ground rupture, and ground failure (mudslide, landslide, liquefaction) or settlement (subsidence). This risk of exposure can be reduced through appropriate planning, land use designations, development engineering, and building construction practices.

Goal 1: Minimize risks of personal injury and property damage associated with seismic activity, landslides, and other geologic hazards.

Policy 1.1: Update acceptable levels of risk/life safety standards when necessary, and see that buildings are brought up to those standards, consistent with state law.

Policy 1.2: Avoid placement of critical facilities and high occupancy structures in areas known to be prone to ground failure during an earthquake.

Policy 1.3: Require soil analysis and erosion mitigation for all development proposed on sites known to be prone to erosion or ground failure.

FLOOD HAZARDS

The community of Los Altos is subject to periodic flooding hazards. Natural flooding results from overflow along the City's four creeks during major rainstorms. While in the past, creek flooding was addressed through channelization to increase the capacity of the creeks, the City prefers to preserve the natural resources along the creekbeds and use less intrusive methods to minimize flooding hazards. Other flood-related hazards within the City include



dam inundation if the Stevens Creek Dam fails, and potential mud and debris flow during rain storms on the few hillsides within the planning area.

Goal 2: Reduce the potential for flooding along creeks that traverse Los Altos.

Policy 2.1: Work with other jurisdictions to regulate land uses in flood-prone areas and allow development in those areas only with appropriate mitigation.

Policy 2.2: Identify and seek sources of funding to be used toward the prevention of flooding.

Policy 2.3: Continue to discourage concrete lining of creek beds, and encourage the Santa Clara Valley Water District to use environmentally sensitive solutions to control local erosion problems.

FIRE HAZARDS

Within the Los Altos planning area, wildland fire hazards are not a major concern because the developed community with landscaped yard areas creates fire breaks. Rather, fire hazards are concentrated in the urban areas where risk levels should be low.

The Open Space, Conservation, & Community Services Element contains goals and policies sufficient to assure adequate levels of fire protection services.

HAZARDOUS MATERIALS

Hazardous materials are used in Los Altos for a variety of purposes including research and development, service industries, small

businesses, agriculture, medical clinics, schools and households. Many chemicals used in household cleaning, construction, dry cleaning, film processing, landscaping and automotive maintenance and repair are considered hazardous. Accidents can occur in the production, use, transport, and disposal of hazardous materials. In order to effectively manage hazardous materials and waste, the City implements applicable plans and policies of the Santa Clara County Health Department and Office of Emergency Services.

Goal 3: Protect the community's health, safety, welfare, natural resources, and property through regulation of use, storage, transport, and disposal of hazardous materials.

Policy 3.1: Cooperate with and participate in development of the policies and future programs of the Santa Clara County Health Department and the California Legislature.

Policy 3.2: Support the management of hazardous materials contamination and abatement by public and private agencies.

EMERGENCY PREPAREDNESS

One of the City's roles is to protect its citizens from potential hazards and reduce the impact of those risks that are unavoidable. The following sections outline goals and policies that, when implemented, will help to protect the community from natural hazards and hazards associated with human activity.

Goal 4: Minimize the risk of hazards to Los Altos residents.

Policy 4.1: Seek to inform the public of areas of risk from hazards.



Major emergencies occur periodically in all communities. Proper preparation for emergencies is an essential action to minimize the disruption, personal injury, and property damage associated with such events. Preventative measures and preparatory responses before an emergency occurs will hasten recovery from these situations. Cooperation with other agencies and jurisdictions is an important factor in preparing for future emergencies.

Goal 5: Minimize risks of personal injury and property damage associated with human activities, such as criminal activity and air and ground transportation.

Policy 5.1: Continue to explore new techniques and approaches in community policing to maintain the safe neighborhood character of the community.

Policy 5.2: Apply design techniques and standards that are aimed at avoiding criminal activity in new development and reuse/revitalization projects.

Policy 5.3: Continue to encourage key emergency personnel to live within the community by allowing the development of mixed-use housing in the Downtown area and along El Camino Real, Foothill Plaza and other appropriate commercial districts.

Policy 5.4: Reduce the risk from air and ground transportation hazards, such as aircraft, rail, truck and roadway systems.

Goal 6: Plan for City and citizen actions in the event of a disaster.

Policy 6.1: Maintain an updated Emergency Preparedness Plan. The plan should increase public awareness of natural hazards and hazards associated with human activity and of methods to avoid or mitigate the effects of these hazards, and should ensure that critical facilities will function during and after a disaster.

Policy 6.2: Maintain communications with other agencies to provide effective emergency services.

Policy 6.3: Cooperate with and encourage the County and neighboring cities to develop and implement a regional Emergency Preparedness Plan.

Policy 6.4: Cooperate with school districts to protect children's safety.

NOISE

Certain areas within Los Altos are subject to high noise levels. The primary noise source impacting Los Altos results from transportation-related activities, especially along major transportation corridors. Other noise sources not related to transportation include construction, business operation, recreational activities, and property maintenance. Consideration of the sources and recipients of noise early in the land use planning and development process can be an effective method of minimizing the impact of noise on people in the community. Consideration may be given to reducing noise in areas already impacted by noise through rehabilitative improvements and enforcement of local noise regulations.



Goal 7: Minimize the amount of noise to which the community is exposed and the amount of noise created by future development and urban activities.

Policy 7.1: Ensure that new development can be made compatible with the noise environment by utilizing noise/land use compatibility standards and the Noise Contours Map as a guide for future planning and development decisions.

Policy 7.2: Enforce the following maximum acceptable noise levels for new construction of various noise-sensitive uses in an existing noise environment.

- ❖ 60 dBA CNEL is the maximum acceptable outdoor noise exposure level for single-family residential areas.
- ❖ 65 dBA CNEL is the maximum acceptable outdoor noise exposure level for multiple-family residential areas.
- ❖ 70 dBA CNEL is the maximum acceptable outdoor noise exposure level for schools (public and private), libraries, churches, hospitals, nursing homes, parks, commercial, and recreation areas. Excepted from these standards are golf courses, stables, water recreation, and cemeteries.

Policy 7.3: Work to achieve indoor noise levels not exceeding 45 dBA CNEL in the event that outdoor acceptable noise exposure levels cannot be achieved by various noise attenuation mitigation measures.

Policy 7.4: Consider the potential impact on the general noise level when planning changes and improvements to the circulation system.

Policy 7.5: Require reasonable mitigation measures to reduce noise levels to those determined to be acceptable in the event that significant increased noise levels will result from an improvement to the circulation system.

Policy 7.6: Consider noise attenuation measures to reduce noise levels to City-adopted acceptable levels for any development along roadways.

Policy 7.7: Require the inclusion of design features in development and reuse/revitalization projects to reduce the impact of noise on residential development.

Policy 7.8: Require an acoustical analysis for new construction and in areas with a higher than established noise levels.

Policy 7.9: Minimize stationary noise sources and noise emanating from construction activities.

Policy 7.10: Publicize and enforce local noise regulations to reduce nuisance noises related to private developments and residences.



AIR QUALITY

Los Altos is located within the Bay Area Air Quality Management District, which is considered a non-attainment air basin since it exceeds some of the allowable levels for various air pollutants. Cooperation among all agencies in the district is necessary to achieve desired improvements to air quality. Los Altos can participate and contribute its share in those efforts by proper planning for land use and transportation.



Goal 8: Maintain or improve air quality in Los Altos.

Policy 8.1: Support the principles of reducing air pollutants through land use, transportation, and energy use planning.

Policy 8.2: Encourage transportation modes that minimize contaminant emissions from motor vehicle use.

Policy 8.3: Interpret and implement the General Plan to be consistent with the regional Bay Area Air Quality Management Plan, as periodically updated.

Policy 8.4: Ensure location and design of development projects so as to conserve air quality and minimize direct and indirect emissions of air contaminants.



IMPLEMENTATION PROGRAMS APPENDIX

The Implementation Programs Appendix provides a guide to implement adopted General Plan policies and plans for City elected officials, staff and the public. The purpose of the Implementation Programs are to ensure the overall direction provided in the General Plan for City growth and development is translated from general terms to specific actions.

Each implementation program is a measure, procedure, or technique that requires additional City action. This action may either occur on a City-wide basis or in specific areas within the City. The City Council, by relating the Implementation Programs to the General Plan, recognizes the importance of long-range planning considerations in day-to-day decision making and budgeting. Implementation of the specific programs will be subject to funding constraints.

USE OF THE GENERAL PLAN IMPLEMENTATION PROGRAM

The Implementation Programs are intended for use in preparing the Annual Report to the City Council on the status of the City's progress in implementing the General Plan, as described in Section 65400 of the California Government Code. Because some of the individual actions and programs described in the Implementation Programs Appendix act as mitigation for significant environmental impacts resulting from planned development identified in the General Plan, the annual report can also provide a means of monitoring the application of the mitigation measures as required by Section 15097 of the State CEQA Guidelines. This

Implementation Programs Appendix may be updated annually with the budget process and whenever the City's General Plan is amended or updated to ensure continued consistency and usefulness.



NATURAL ENVIRONMENT & HAZARDS

This Implementation Program provides actions to implement the adopted policies and plans identified in the Natural Environment & Hazards Element. The Natural Environment & Hazards Implementation Program is a series of actions, procedures and techniques which includes a description of the responsible agency/department, funding source, time frame and related policies in the Natural Environment & Hazards Element.

SEISMIC/GEOLOGIC HAZARDS

NEH 1: AVOID HAZARDS IN NEW DEVELOPMENT

Assess development proposals for potential seismic/geologic hazards pursuant to the California Environmental Quality Act. Require measures to mitigate all identified significant public safety hazards. In addition, monitor new development for potential hazards to Los Altos residents and request mitigation measures where appropriate.

Responsible Agency/Department:	Community Development, Public Works
Funding Source:	Development fees
Time Frame:	Ongoing
Related Policies:	1.2

NEH 2: STRUCTURAL SAFETY STANDARDS

To minimize damage from earthquakes and other geologic activity, implement and enforce the most recent State seismic guidelines and guidelines for other geologic hazards for structural design. Particularly emphasize the integrity of structures for inhabitable structures, critical structures and vital emergency facilities.

Responsible Agency/Department:	Community Development
Funding Source:	Development fees
Time Frame:	Ongoing
Related Policies:	1.1

NEH 3: HAZARDOUS BUILDING IDENTIFICATION

Identify potentially seismically hazardous buildings, defined as “all public and private buildings intended for human habitation, except buildings having less than five dwelling units, constructed prior to enactment of local codes requiring earthquake resistant design and constructed with unreinforced masonry bearing walls”, and establish a mitigation program based on the type of use, level of occupancy, and/or type of construction.

Responsible Agency/Department:	Community Development
Funding Source:	General Fund
Time Frame:	Ongoing
Related Policies:	1.1, 1.2



NEH 4: SOIL AND GEOLOGIC SURVEYS

During the review of development proposals, require surveys of soil and geologic conditions by a State-licensed engineering geologist where appropriate. The purpose of the surveys is to determine the geologic stability of the site and identify design measures to minimize geologic hazards. Require the project design recommendations as conditions of the project approval.

Responsible Agency/Department: Public Works, Community Development
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: 1.3

NEH 5: RESTRICT DEVELOPMENT ON SLOPES

Restrict development on slopes greater than 30 percent.

Responsible Agency/Department: Community Development
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: 1.3

NEH 6: EARTHQUAKE PREPAREDNESS

Promote earthquake preparedness in the community with periodic earthquake awareness programs. The program could include mailing brochures to residences and businesses, press releases, school education programs and presentation to homeowner groups and property managers. Coordinate programs with emergency service providers and the school districts to maximize public participation.

Responsible Agency/Department: Police
Funding Source: General Fund, School Districts
Time Frame: Annual
Related Policies: 4.1

FLOOD HAZARDS

NEH 7: FLOOD CONTROL INSURANCE

Participate in the National Flood Insurance Administration (NFIP) program administered through the Federal Emergency Management Agency (FEMA). The NFIA program provides federal flood insurance subsidies and federally financed loans for property owners in flood prone areas. To qualify for federal flood insurance, the City must identify flood hazard areas and implement a system of protective controls. Areas in the planning area prone to flooding have been mapped by FEMA and the City will continue to implement the following land use controls to minimize flooding impacts:

- 1) Floodway. Development is usually prohibited unless encroachment will not obstruct flows or cause increased flood levels.



- 2) Floodway fringe. Development encroachment is permitted if the lowest floor of the structure is one foot above the highest estimated flood elevation.

Responsible Agency/Department: Public Works, Community Development
Funding Source: Development Fees
Time Frame: Ongoing
Related Policies: 6.2

NEH 8: FLOOD CONTROL SYSTEM

Coordinate with the Santa Clara Valley Water District to ensure regularly scheduled maintenance of flood control channels and completion of necessary repairs.

Responsible Agency/Department: Public Works
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: 2.1, 2.3

NEH 9: FLOODING EMERGENCY PROCEDURES

In accordance with Section 8589.5 of the California Government Code, maintain emergency procedures for the evacuation and control of populated areas within identified floodplain areas.

Responsible Agency/Department: Public Works, Police
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: 4.1

NEH 10: STORM DRAINAGE MASTER PLAN

Update the Storm Drainage Master Plan by coordinating with Santa Clara Valley Water District to identify flood control deficiencies and necessary improvements.

Responsible Agency/Department: Public Works
Funding Source: General Fund, development and drainage fees
Time Frame: Ongoing
Related Policies: 2.1, 2.3

NEH11: FLOOD HAZARD AREA REGULATIONS

Continue to control development in the flood hazard areas through implementation of the Flood Hazard Area Regulations Ordinance.

Responsible Agency/Department: Public Works, Community Development
Funding Source: General Fund, development fees
Time Frame: Ongoing
Related Policies: 2.1, 2.3



NEH 12: WATERCOURSE PROTECTION ORDINANCE

Continue to protect the creeks and creek habitat through implementation of the Watercourse Protection Ordinance. Maintain the special setback provisions along Adobe Creek from Shoup Park to O'Keefe Lane.

Responsible Agency/Department: Public Works, Community Development,
Funding Source: General Fund, Federal and State funds, Development fees
Time Frame: Ongoing
Related Policies: 2.3

NEH 13: EROSION CONTROL

Implement erosion and sediment control measures to reduce soil erosion and volume and velocity of surface runoff from construction sites and large parking lots or other impervious surfaces.

Responsible Agency/Department: Community Development
Funding Source: General Fund, development fees, mitigation
Time Frame: Ongoing
Related Policies: 1.3, 2.3

HAZARDOUS MATERIALS

NEH 14: REDUCE RISKS FROM HAZARDOUS MATERIALS

Minimize public health and environmental risks from the use, transport, storage and disposal of hazardous materials with the following approaches:

- 1) Cooperating with federal, state, and local agencies to effectively regulate the management of hazardous materials and waste;
- 2) Cooperating with Santa Clara County to implement applicable portions of the County Hazardous Waste Management Plan;
- 3) Establishing defined transportation routes in the planning area for the conveyance of hazardous materials; and
- 4) Developing an emergency response plan for accidents involving hazardous materials.

Responsible Agency/Department: Public Works, Community Development, Santa Clara County Environmental Health
Funding Source: General Fund, Federal and State funds, local regulatory agencies
Time Frame: Ongoing
Related Policies: 3.1



NEH 15: HOUSEHOLD HAZARDOUS WASTE PROGRAM

Adopt a Household Hazardous Waste Program to protect residents from danger resulting from the use, transportation and disposal of hazardous materials used in the home. The program should include public education about health and environmental hazards of household hazardous materials, and periodic collection campaigns at established sites.

Responsible Agency/Department: Public Works, Santa Clara County Environmental Health
Funding Source: General Fund
Time Frame: 2002/2003
Related Policies: 3.2

EMERGENCY PREPAREDNESS

NEH 16: EMERGENCY PREPAREDNESS PLAN

Prepare and maintain an Emergency Preparedness Plan to maximize the efforts of emergency service providers (e.g., fire, medical and law enforcement) and minimize human suffering and property damage during disasters. The Plan should do the following:

- 1) Identify resources available for emergency response and establish coordinated action plans for specific emergency situations and disasters including earthquake, fire, major rail and roadway accident, flooding, hazardous materials incident, civil disturbance, and chemical, biological, and nuclear attack;
- 2) Identify public shelters where aid and supplies will be available;
- 3) Identify water sources in case of major disruption of water delivery capacity; and
- 4) Involve citizen volunteers in disaster relief activities where feasible.

Responsible Agency/Department: City Manager, Police
Funding Source: General Fund
Time Frame: 2002/2003 and Ongoing
Related Policies: 6.1, 6.3, 6.4

NEH 17: EMERGENCY PREPAREDNESS EDUCATION

Educate residents and businesses to take appropriate action to safeguard life and property during and immediately after emergencies. Education about emergency preparedness can occur through the distribution of brochures, presentations to civic groups and homeowner associations, and instruction in local schools.

Responsible Agency/Department: Police, Local School Districts
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: 6.4



NEH 18: COMMUNICATION NETWORK FOR EMERGENCIES

Support a high level of multi-jurisdictional cooperation and communication for emergency planning and management. Solicit private individuals and organizations to enhance service provider communication and response with cellular telephones, ham radios, AM/FM radio and cable television and local school districts.

Responsible Agency/Department: City Manager, Police
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: 6.2

NEH 19: SECURE EMERGENCY FACILITIES

Ensure that all existing and proposed vital facilities such as hospitals, fire stations and communication stations, are designed and operated to remain functional during a disaster.

Responsible Agency/Department: City Manager, Police
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: 6.1

NEH 20: FIRST AID TRAINING

Work with school districts to provide training programs in first aid and cardio-pulmonary resuscitation (CPR).

Responsible Agency/Department: Police, Fire
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: 6.4

NOISE

NEH 21: COMPATIBLE DEVELOPMENT

Use noise and land use compatibility standards to guide future planning and development decisions. Table NEH-2 in the Natural Environment & Hazards Element summarizes the standard for acceptable noise levels by land use types. Review development proposals to ensure that the City's noise standards and compatibility criteria are met. Require mitigation measures, where necessary, to reduce noise levels to meet these standards and criteria.

Responsible Agency/Department: Community Development
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: 7.1



NEH 22: ACCEPTABLE NOISE LEVELS FOR NEW DEVELOPMENT

Ensure that new development is exposed to acceptable noise levels. Require acoustical analyses for all proposed development within the 60 dB CNEL contour as shown on Figure NEH-3, Future Noise Contours in the Natural Environment & Hazards Element. Also require acoustical analyses for selected proposed residential projects in the vicinity of existing and proposed commercial areas that may generate excessive noise. Where the noise analyses indicates that the City's noise standards will be exceeded, require noise control measures to be incorporated into the proposed development to reduce noise to acceptable levels. Noise control measures may include berms, walls, and sound attenuating architectural design and construction methods. Only permit new development if the noise standards and the City's Noise Ordinance can be met.

Responsible Agency/Department: Community Development
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: 7.2

NEH 23: NOISE INSULATION STANDARDS

Enforce the provisions of the State of California Noise Insulation Standards (Title 24) that specify that indoor noise levels for multi-family residential living spaces shall not exceed 45 dB CNEL. The Title 24 noise standard is defined as the combined effect of all noise sources and is implemented when existing or future exterior noise levels exceed 60 dB CNEL. Figure NEH-3, Future Noise Contours, will be used to determine where exterior noise levels exceed 60 dB CNEL. Title 24 requires that the standard be applied to all new hotels, motels, apartment houses and dwellings other than single-family dwellings. Also apply the standard to single-family dwellings and condominium conversion projects as official policy.

Responsible Agency/Department: Community Development
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: 7.3

NEH 24: NOISE ORDINANCE IMPLEMENTATION AND ENFORCEMENT

Implement and enforce the City's Noise Ordinance to protect residents from excessive noise levels.

Responsible Agency/Department: Community Development, Public Works, Police
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: 7.10



NEH 25: REDUCE ROADWAY NOISE

Reduce noise impacts from transportation activity to enhance the quality of the community. Incorporate noise control measures, such as sound walls and berms, into roadway improvement projects to mitigate impacts to adjacent development. Request Caltrans and the Santa Clara County Transportation Agencies to provide noise control for roadway projects within the Planning Area. Particularly advocate reducing noise impacts from the list of major noise sources.

Responsible Agency/Department: Public Works, Community Development
Funding Source: General Fund, development fees, gas tax revenues
Time Frame: Ongoing
Related Policies: 7.5, 7.6

NEH 26: MINIMIZE VEHICLE, BUS AND TRUCK NOISE

Coordinate with the Police Department, Santa Clara County Sheriffs Department and the California Highway Patrol to enforce the California Vehicle Code pertaining to noise standards for cars, trucks and motorcycles. Periodically review truck and bus routes in the Planning Area for noise impacts to residential and other sensitive land uses. Where noise impacts are identified from truck traffic, modify the designated truck routes to avoid impacts. Where impacts are identified from bus traffic, recommend alternative routes to the Santa Clara County Transportation Authority.

Responsible Agency/Department: Public Works, Police
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: 7.5, 7.6

NEH 27: MINIMIZE COMMERCIAL NOISE

Amend the City Noise Ordinance to limit delivery hours for stores with loading areas or docks that front, side, border or gain access on driveways next to residential and other noise sensitive areas. Only approve exceptions if full compliance with the nighttime limits of the noise ordinance is achieved.

Responsible Agency/Department: Community Development
Funding Source: General Fund
Time Frame: Ongoing
Related Policies: 7.8, 7.9

NEH 28: MINIMIZE CONSTRUCTION NOISE

Require all construction activity to comply with the limits established in the City Noise Ordinance.

Responsible Agency/Department: Community Development
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: 7.9



AIR QUALITY

NEH 29: MINIMIZE IMPACTS OF NEW DEVELOPMENT

Review development proposals for potential impacts pursuant to CEQA and the BAAQMD Air Quality Handbook. Reduce impacts of new development using available land use and transportation planning techniques such as:

- 1) Incorporation of public transit stops;
- 2) Pedestrian and bicycle linkage to commercial centers, employment centers, schools, and parks;
- 3) Preferential parking for car pools;
- 4) Traffic flow improvements; and
- 5) Employer trip reduction programs.

Responsible Agency/Department: Community Development, Public Works
Funding Source: Development fees
Time Frame: Ongoing
Related Policies: 8.1, 8.4

NEH 30: PARTICIPATION IN REGIONAL AIR QUALITY PROGRAMS

Work with the BAAQMD and ABAG and to meet federal and State air quality standards for all pollutants. To ensure that new measures can be practically enforced in the region, participate in future amendments and updates of the BAAQMP.

Responsible Agency/Department: Community Development, Public Works
Funding Source: General Fund, BAAQMD Revenue
Time Frame: Ongoing
Related Policies: 8.1, 8.2, 8.3