

Noise

Goals, Policies, and Actions

OVERVIEW

The Noise Element is a mandatory component of the General Plan. The overall purpose of the Noise Element is to address major noise sources and to promote safe and comfortable noise levels throughout Milpitas. The Noise Element contains goals, policies, and actions that seek to reduce community exposure to excessive noise levels through the establishment of noise level standards for a variety of land uses.

Noise is typically defined as unwanted sound and is usually objectionable because it is disturbing or annoying. Excessive noise may result in hearing loss, interference with normal activities such as sleep, speech communication, work, and recreation, or annoyance, which may impact quality of life. From a planning perspective, noise control focuses on two primary concerns: (1) preventing the introduction of new noise-producing uses in noise-sensitive areas; and (2) preventing the encroachment of noise-sensitive uses into existing noise-producing areas. Noise in Milpitas is generated by a variety of sources, including, but not limited to: vehicle traffic, including automobiles, trucks, and motorcycles; rail operations; business activity, including restaurants/bars, auto repair shops, and industrial operations; and other activity, including special events, amplified music or sound, etc.

Background information regarding noise sources and noise conditions in Milpitas is presented in Chapter 4.6 of the General Plan Update Existing Conditions Report.

GOAL N 1 PRESERVE A NUISANCE-FREE NOISE ENVIRONMENT FOR EXISTING AND FUTURE LAND USES BY MINIMIZING EXPOSURE TO HARMFUL AND EXCESSIVE NOISE LEVELS

Policy N 1-1: Consider the noise compatibility of existing and future development when making land use planning decisions. Require development and infrastructure projects to be consistent with the land use compatibility standards contained in Tables N-1 and N-2 to ensure acceptable noise exposure levels for existing and future development.

Policy N 1-2: Require new development to mitigate excessive noise to the standards indicated in Tables N-1 and N-2 through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials.

Policy N 1-3: Use sound walls for sound attenuation only when other measures are not practical, or when recommended by an acoustical expert as part of a mitigation measure. Sound walls shall

Acoustic Terminology

A-weighted decibels, abbreviated dBA, are an expression of the relative loudness of sounds in air as perceived by the human ear. Sample dBA sound levels are shown in Table N-3.

Average noise exposure over a 24-hour period is presented as a day-night average sound level, or Ldn.

be designed to be aesthetically pleasing, and should incorporate features such as vegetation, variations in color and texture, artwork, and other features deemed appropriate by the City.

Policy N 1-4: Ensure that new development does not result in indoor noise levels exceeding 45 dBA L_{dn} for residential uses by requiring the implementation of construction techniques and noise reduction measures for all new residential development.

Policy N 1-5: Require acoustical studies for new discretionary developments and transportation improvements that have the potential to affect existing noise-sensitive uses such as schools, hospitals, libraries, care facilities, and residential areas; and for projects that would introduce new noise-sensitive uses into an area where existing noise levels may exceed the thresholds identified in this element.

Policy N 1-6: For projects that are required to prepare an acoustical study to analyze noise impacts, the following criteria shall be used to determine the significance of those impacts:

STATIONARY AND NON-TRANSPORTATION NOISE SOURCES

- A significant impact will occur if the project results in an exceedance of the noise level standards contained in this element. In instances where the ambient noise level is already above the standards contained in this element, a significant impact will occur if the project will result in an increase in ambient noise levels by more than 3 dB. This does not apply to temporary construction activities.

TRANSPORTATION NOISE SOURCES

- Where existing traffic noise levels are 60 dB L_{dn} or less at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in roadway noise levels will be considered significant;
- Where existing traffic noise levels are greater than 60 dB L_{dn} and up to 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in roadway noise levels will be considered significant; and
- Where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB L_{dn} increase in roadway noise levels will be considered significant.

Policy N 1-7: Support noise-compatible land uses along Interstates 680 and 880, Highway 237, and other high-volume roadways.

Stationary Noise means a source of sound or combination of sources of sound that are included and normally operated within the property lines of a facility. Common examples include: commercial facilities, industrial facilities, repair or storage garages, and truck terminals.

Transportation Noise consists of traffic noise from roadways, rail lines and aircraft overflight.

Outdoor Activity Areas include back yard spaces, first floor rear patio/deck areas, rear or internal courtyard seating and play areas, and rooftop decks. Front yard spaces, elevated balconies, side yards, etc., are not considered to be outdoor activity areas.

Policy N 1-8: Require construction activities to comply with standard best practices to reduce noise exposure to adjacent sensitive receptors (see Action N 1d).

Policy N 1-9: Implement a range of traffic control measures, including but not limited to, light timing, asphalt alternatives, and speed reduction measures to reduce roadway noise.

Policy N 1-10: Work with Regional, State, and Federal agencies, including but not limited to, Caltrans, BART, VTA, and Santa Clara County to ensure that adequate noise studies are prepared prior to the approval of State and Regional transportation and infrastructure projects. Strongly encourage these agencies to ensure that adequate noise mitigation measures are incorporated into future projects to protect Milpitas residents and businesses from exposure to excessive noise levels.

NON-TRANSPORTATION NOISE

Policy N 1-11: Require non-transportation related noise from site specific noise sources to comply with the standards shown in Table N-2.

Policy N 1-12: Regulate the effects of operational noise from existing and new industrial and commercial development on adjacent sensitive uses through the enforcement of the City's noise standards (see Title V, Chapter 213 of the Milpitas Municipal Code).

Policy N 1-13: Temporary special events including, but not limited to, festivals, concerts, parades, sporting events, and other similar activities may be allowed to exceed the noise standards established in this element, at the discretion of the City on a case-by-case basis, through issuance of a special event permit (see Title XI, Chapter 10, Section 15 - Special Events of the Milpitas Municipal Code). In an effort to promote safe and comfortable noise levels throughout Milpitas, potential adverse noise impacts to communities adjacent to proposed special event locations will be considered as a part of the permit review process

Policy N 1-14: Temporary emergency operations or emergency equipment usage authorized by the City shall be exempt from noise standard criteria set by this element.

Actions in Support of Goal N1

Action N 1a: Require that new development projects are reviewed for compliance with the noise requirements established in this element, including the standards established in Tables N-1 and N-2, prior to project approval.

Action N 1b: Require acoustical studies for new development projects which have the potential to generate noise impacts which exceed the standards identified in this element. The studies shall include representative noise measurements, estimates of existing and projected noise levels, and mitigation measures necessary to ensure compliance with the noise standards included in this element. Studies shall be conducted by a qualified acoustical professional.

Action N 1c: Require developers to prepare a construction management/noise mitigation plan that defines best management practices to reduce construction noise, and includes proposed truck routes (that comply with Section 12 V-100-12.05 - Truck Routes of the Milpitas Municipal Code) as part of the entitlement process.

Action N 1d: During the environmental review process, determine if proposed construction will constitute a significant impact on nearby sensitive receptors and, if necessary, require mitigation measures in addition to the standard best practice controls. Suggested best practices for control of construction noise include:

- *Noise-generating construction activities, including truck traffic coming to and from the construction site for any purpose, shall be limited to between the hours of 7:00 am and 7:00 pm. No construction shall occur on National holidays.*
- *All equipment driven by internal combustion engines shall be equipped with mufflers, which are in good condition and appropriate for the equipment.*
- *The construction contractor shall utilize “quiet” models of air compressors and other stationary noise sources where technology exists.*
- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.*
- *Unnecessary idling of internal combustion engines shall be prohibited for a duration of longer than five minutes.*
- *Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.*
- *Neighbors located adjacent to the construction site shall be notified of the construction schedule in writing.*
- *The construction contractor shall designate a “noise disturbance coordinator” who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

Action N 1e: Coordinate with Caltrans, VTA, BART, local school districts, Santa Clara County, and the cities of San Jose, and Fremont when necessary, to ensure that these agencies obtain City concurrence prior to initiating or approving any noise generating projects affecting Milpitas.

Action N 1f: Petition State and Regional agencies to install “quiet pavement” materials during roadway improvement and resurfacing activities. Utilize quiet pavement materials on City-owned streets to the greatest extent feasible.

Action N 1g: Explore and consider rebate, incentive, and educational opportunities to reduce community noise, while providing co-benefits of community health and environmental stewardship. Programs could include electric lawn and garden equipment upgrade programs, dual pane/noise rated window upgrades, and other appropriate programs which coincide with energy reduction, community health, and sustainability objectives identified by the General Plan, and Climate Action Plan.

Action N 1h: Periodically review and update as necessary Milpitas’s Municipal Code to ensure the City’s noise goals and priorities of the General Plan are being implemented.

Action N 1i: Periodically review noise complaints for emerging trends in the community noise environment. Update the Milpitas Municipal code, as necessary, to address emerging trends.

Action N 1j: Update Title V, Chapter 213 – (Noise Abatement) of the Milpitas Municipal Code as necessary to comply with noise standards and criteria set by this element.

GOAL N 2: PROVIDE VIBRANT MIXED-USE AND TRANSIT-ORIENTED ACTIVITY CENTERS, WHILE PROTECTING EXISTING AND FUTURE SENSITIVE USES FROM EXCESSIVE NOISE LEVELS.

Policy N 2-1: Through the use permit process, provide flexibility for businesses located within activity centers (areas within the Transit Area Specific Plan, and Midtown Specific Plan) to occasionally exceed the Table N-1 and Table N-2 exterior noise standards, as indicated in Table N-3.

Policy N 2-2: The City may elect to allow new noise-sensitive land uses within activity centers (areas within the Transit Area Specific Plan, and Midtown Specific Plan) that exceed the Land Use Compatibility Standards in Table N-1, and Stationary Noise Source Standards in Table N-2. Noise mitigation, including an acoustical analysis, shall be required to reduce interior space noise levels to 45 dB L_{dn} , or less, for sensitive receptors. Exterior noise levels shall be reduced to the extent feasible using building orientation, construction and design features; however ultimately, noise levels may exceed the noise standards identified in Table N-1 and N-2, but shall comply with standards identified in Table N-3.

Mixed-Use development blends residential uses with commercial, cultural, office uses etc. where uses are physically and functionally integrated

Policy N 2-3: Consider groundborne vibration and noise nuisance associated with rail operations prior to approving the development of sensitive uses.

Actions in Support of Goal N2

Action N-2a: Update the Milpitas Municipal Code Title V, Chapter 213 (Noise Abatement) to include good neighbor noise practices for bar, live entertainment, and restaurant activities in mixed-use areas. Updates should include standards for common sources of nighttime noise to ensure activities occur during times to minimize nighttime noise impacts to surrounding neighborhoods.

Action N-2b: Review new developments within 100 feet of the rail line to ensure that vibration experienced by residents and sensitive uses would not exceed the Federal Transit Administration guidelines.

Action N-2c: Establish provisions that would allow new noise-sensitive land uses on a case by case basis in proximity to transportation noise sources and mixed-use areas that do not fall within the Conditionally Acceptable Land Use Compatibility Standards in Table N-1.

Action N-2d: Provide for additional scrutiny of potential noise impacts to surrounding neighborhoods when considering approval of new "late-night activities" (commercial entertainment land use activities operating past 10:00 p.m.)

Table N-1: Land Use Compatibility for Community Noise Environment

Land Use Category	Exterior Noise Exposure (Ldn)					
	55	60	65	70	75	80
Single-Family Residential		Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable	Unacceptable
Multi-Family Residential, Hotels, and Motels		Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable	Unacceptable
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds		Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable
Schools, Libraries, Museums, Hospitals, Personal Care, Public Assembly		Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable	Unacceptable
Office Buildings, Business Commercial, and Professional		Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable
Industrial		Conditionally Acceptable	Conditionally Acceptable	Unacceptable	Unacceptable	Unacceptable

Note: Residential components of Mixed-Use developments are subject to the Multi-Family Residential Noise Standards unless otherwise allowed in conjunction with Policy N 2-2.

	<p>NORMALLY ACCEPTABLE Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements</p>
	<p>CONDITIONALLY ACCEPTABLE Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design</p>
	<p>UNACCEPTABLE New construction or development should generally not be undertaken because mitigation was found to be infeasible to comply with noise element policies</p>

Table N-2: Stationary (Non-Transportation) Noise Source Standards

Land Use Receiving the Noise	Hourly Noise-Level Descriptor	Exterior Noise-Level Standard (dBA)	
		Daytime (7am-10pm)	Nighttime (10pm-7am)
Residential	L _{eq}	55	45
	L _{max}	70	65

Notes:

a) The residential standards apply to all properties that are zoned for residential use. The exterior noise level standard is to be applied at the property line of the receiving land use or at a designated outdoor activity area. For mixed-use projects, the exterior noise level standard may be waived in conjunction with Policy N 2-2 (at the discretion of the decision-making body) if the residential portion of the project does not include a designated activity area and mitigation of property line noise is not practical.

b) Each of the noise levels specified above shall be lowered by 5 dBA for tonal noises characterized by a whine, screech, or hum, noises consisting primarily of speech or music, or recurring impulsive noises. In no case shall mitigation be required to a level that is less than existing ambient noise levels, as determined through measurements conducted during the same operational period as the subject noise source.

c) In situations where the existing noise level exceeds the noise levels indicated in the above table, any new noise source must include mitigation that reduces the noise level of the noise source to the existing level plus 3 dB.

Tonal Noises are characterized by a whine, screech, beep, or hum, consisting primarily of speech or music, or recurring impulsive noises. Tonal noises can cause unpleasant experiences in spaces adjacent to areas that produce tonal noise, which annoys occupants and, in turn, lead to increased complaints from nearby sensitive receptors.

Table N-3 Stationary (Non-Transportation) Noise Source Standards (Commercial Mixed-Use and Transit-Oriented Areas)

Land Use Receiving the Noise	Hourly Noise-Level Descriptor	Exterior Noise-Level Standard (dBA)		
		Daytime (7am-10pm)	Late Night (10pm-12am)	Nighttime (12am-7am)
Residential (Sunday Night – Thursday Night)	L _{eq}	60	55	50
	L _{max}	70	65	65
Residential (Friday Night – Saturday Night)	L _{eq}	65	60	55
	L _{max}	75	70	65

Table N-4: Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Car Horn at 1 m (3 ft)	--110--	Rock Concert
Jet Fly-over at 300 m (1,000 ft)	--100--	Factory Machinery
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio

SOURCE : CALTRANS , TECHNICAL NOISE SUPPLEMENT , TRAFFIC NOISE ANALYSIS PROTOCOL . SEPTEMBER 2013.