



Memorandum

December 8, 2015

To: Greg Medici - Asst. Superintendent/CBO
Los Gatos-Saratoga Union High School District

From: Judy Shanley, David J. Powers & Associates

Subject: Los Gatos High School – Lower Fields Athletic Facilities Improvements

Overview

The Los Gatos-Saratoga Union High School District (LGSUHSD) proposes to repair, replace and/or modernize certain existing athletic facilities at the Los Gatos High School (LGHS) campus. This memorandum describes the proposed project, addresses potential environmental issues associated with construction and/or operation of the project, and provides evidence to support a determination by the LGSUHSD that the project would be eligible for one or more Categorical Exemptions from the California Environmental Quality Act (CEQA).

Project Location and Existing Facilities

LGHS is located in the southeast quadrant of the intersection of State Route (SR) 17 and SR 9 (Los Gatos-Saratoga Road) at 20 High School Court in the Town of Los Gatos. A regional map and vicinity map of the project site are shown on Figures 1 and 2.

LGHS is generally bounded by East Main Street to the south, Pleasant Street and residences fronting on Bella Vista Avenue to the east, High School Court to the west, State Route 17 to the northwest, and Los Gatos Lodge to the northeast. The campus is occupied by high school uses, including classrooms, auditorium, administration, athletic facilities, parking facilities and open space areas. Existing enrollment at LGHS is approximately 1,800 students. Land uses in the immediate vicinity of the proposed athletic facilities improvements are primarily commercial (i.e., offices, and retail), residential, and institutional (i.e., a church); the nearest residences are located along the west end of the multi-use field adjacent to the softball field. An aerial photograph of LGHS and the surrounding land uses is shown on Figure 3.

Project Description

The project proposes to replace the natural turf on the existing softball and adjacent multi-use fields (lower fields) with synthetic turf. Proposed related improvements include a restroom building, relocated and new bleachers, additional batting cage, picnic/memorial area, pedestrian paths, retaining walls and fencing, landscaping, and relocated storage sheds and infield fines bin. The fields will stay in their current locations and no new field lighting is proposed. Project construction would start May 2016 and is scheduled to be completed September 2016.

Environmental Effects

Cultural Resources

Archaeological

An archaeological assessment was completed in 2014 for the LGHS campus and project vicinity, in order to determine whether known cultural resources have been recorded within the project vicinity, and to assess the likelihood for unrecorded cultural resources to be present. The assessment included background research and a surface survey. The records search was conducted at the Northwest Information Center (NWIC) of the California Historical Resources Information System (File No. 13-1602), and included the campus and a ½-mile radius. The records search shows no recorded archaeological resources within a ½-mile radius of the campus. The nearest known prehistoric archaeological sites are approximately two miles to the south, near Lexington Reservoir. No archaeological resources were identified during the surface survey. Based on the results of the records search and survey, nearby archaeological site distribution, and previous disturbance to construct the campus and athletic fields, it does not appear that the project has the potential to impact archaeological resources. The discovery of cultural materials during ground disturbing activities, however, cannot be entirely dismissed. If any archaeological materials are discovered during project construction activities, the project shall comply with Public Resources Code (PRC) Section 21083.2 and Section 15126.4 of the CEQA Guidelines. Furthermore, in the unlikely event human remains are discovered during project construction activities, the project shall comply with California Health and Safety Code 7070.5, PRC Section 5097.98, and CEQA Guidelines Section 15064.5[d], as described below:

Accidental Discovery of Cultural Resources: If prehistoric or historic-period archaeological resources are encountered, all construction activities within 100 feet shall halt and the Los Gatos-Saratoga Union High School District shall be notified.¹ A Secretary of the Interior-qualified archaeologist shall inspect the findings within 24 hours of discovery. If it is determined that the project could damage a historical resource or archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and

¹ Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse.

Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place (i.e., avoidance). If avoidance is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan in consultation with the Los Gatos-Saratoga Union High School District and following the applicable requirements of PRC Section 21083.2.

Accidental Discovery of Human Remains: In the event any human remains are discovered during construction activities, such activities within 100 feet of the find shall cease until the Santa Clara County Coroner has been contacted to determine that no investigation of the cause of death is required. The Native American Heritage Commission (NAHC) will be contacted within 24 hours if it is determined that the remains are Native American. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American, who in turn would make recommendations to the Los Gatos-Saratoga Union High School District for the appropriate means of treating the human remains and any grave goods.

Paleontological

The project area is underlain surface deposits that are not likely to yield paleontological remains because they are not considered fossil-bearing rock units. In addition, construction of the proposed project would not require substantial excavation to depths at which paleontological resources could be encountered. For these reasons, the project would have no impact on paleontological resources.

Biological Resources

Special-status Species

Habitats in developed areas, such as the project site, are extremely low in species diversity. Species using developed habitat are predominately urban adapted birds and animals, such as doves, squirrels, and domestic cats.

Rare, threatened, endangered and sensitive plants, animals and natural communities are not expected or likely to occur on the athletic fields and adjacent recreational facilities. This conclusion is based upon the fact that these areas does not contain suitable habitat for any of these species (e.g., marsh, wetland, riparian or serpentine soils).

Tree Protection during Project Construction

Numerous trees are located along the perimeter of the softball and adjacent multi-use fields. No trees are proposed to be removed by the proposed project. Trees in close proximity to construction activities could be subject to direct and indirect effects during project construction. Direct effects could include potential damage to tree limbs or roots during turf installation, root zone grading and compaction. Indirect effects could include potential damage associated with staging of materials and construction equipment within tree drip lines.

As part of the proposed project, the District will implement the following measures to prevent potential damage to mature trees located adjacent to the athletic fields. Implementation of these tree

protection measures will ensure project construction would not result in any adverse effects on these resources.

- Prior to construction, trees adjacent to the fields will be trimmed to avoid limb damage during construction.
- During construction, implement tree protection measures. Measures may include, but are not limited to, installation of protective tree fencing; prohibiting storage of construction materials, equipment or vehicles inside tree drip lines; designing utility services and irrigation lines to be located outside of the driplines when feasible; and use of a certified arborist on-site whenever construction activities occur that may affect tree health.

Potential Effects to Nesting Birds during Project Construction

Nesting habitat is available in the numerous trees located along the perimeter of the softball and adjacent multi-use fields. Most native breeding birds are protected under Section 3503 of the California Fish and Wildlife Code (Code), and raptors are protected under Section 3503.5 of the Code. In addition, both Section 3513 of the Code and the Federal Migratory Bird Treaty Act (MBTA, 16 U.S. Code, Sec. 703 Supp. I, 1989) prohibit killing, possessing, or trading migratory birds.^{2 3}

Project construction activities during the bird breeding season (February 1 through August 31) such as tree trimming, excavation, grading, delivery, staging, movement of materials and equipment movement have the potential to result in the direct destruction of active nests, nest abandonment, and/or injury or mortality of nestlings. Compliance with the requirements of the Code and the MBTA, as described above, will ensure that there would be no loss of active nests or bird mortality, and would ensure that no significant effects on nesting birds would ensue. To avoid impacts from

² Under Section 3503 of the California Fish and Game Code, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 of the code prohibits take, possession, or destruction of any birds in the orders Falconiformes (hawks) or Strigiformes (owls), or of their nests and eggs. Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) allow the designation of a species as fully protected. This is a greater level of protection than is afforded by CESA. Except for take related to scientific research, all take of fully protected species is prohibited.

³ The federal MBTA (United States Code, Title 16, Section 703, Supplement I, 1989) prohibits taking, killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs. Take is defined in the federal Endangered Species Act as "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any threatened or endangered species." Harm may include significant habitat modification where it actually kills or injures a listed species through impairment of essential behavior (e.g., nesting or reproduction). Therefore, for projects that would not result in the direct mortality of birds, the MBTA is generally also interpreted in CEQA analyses as protecting active nests of all species of birds that are included in the "List of Migratory Birds" published in the Federal Register in 1995. With respect to nesting birds, while the MBTA itself does not provide specific take avoidance measures, a set of measures sufficient to demonstrate take avoidance have been developed over time by USFWS and CDFW. Since these measures are typically required as permitting conditions by these agencies, they are often incorporated as mitigation measures for projects during the environmental review process, unless the project as proposed incorporates and is consistent with these protections. These requirements include preconstruction nesting bird surveys and establishment of appropriate buffers from construction if active nests are found.

disruptive project construction activities occurring February 1 through August 31, the District shall implement the following nesting bird measures, as part of the proposed project. These measures will ensure proposed construction activities would not result in any adverse effects on these resources.

- Perform a preconstruction survey to locate active passerine (perching bird) nests within 250 feet of the project site and any raptor nests within 500 feet of the project site, conducted by a qualified biologist, and no more than 14 days prior to the start of work during the breeding season to determine if any active nests are present within the vicinity proposed construction activities; and/or
- Avoid any nests identified and the establishment by a qualified biologist of a construction-free buffer zone, to be maintained until nestlings have fledged.⁴

Air Quality

Construction Dust and Exhaust Emissions

Construction of the proposed project would require extensive grading and excavation. Construction activities, such as excavation and grading operations, and wind blowing over exposed earth would generate exhaust emissions and fugitive particulate matter emissions that affect local and regional air quality. Construction dust has the potential for creating a nuisance at nearby properties.⁵ Given the scope of proposed activities in comparison to the Bay Area Air Quality Management District (BAAQMD) construction screening levels (i.e., 67-acre park), project construction emissions are not anticipated to exceed BAAQMD thresholds. Nevertheless, to minimize construction air quality effects, the District will implement the construction measures included in the BAAQMD CEQA Air Quality Guidelines (May 2012) and recommended for all projects. Incorporation of the following measures, as part of the project, would ensure the project would not result in any adverse air quality effects:

Dust Control

- Water all active construction areas at least twice daily.
- Cover all trucks hauling soil, sand, and other loose materials *or* require all trucks to maintain at least two feet of freeboard.
- Sweep streets daily (with water sweepers) if visible soil material is carried onto adjacent public streets.
- Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for 20 days or more).

⁴ In general, CDFW recommends a 250-foot construction exclusion zone around the nests of active passerine songbirds during the breeding season, and a 500-foot buffer for nesting raptors. These buffer distances are considered initial starting distances once a nest has been identified, and are sometimes revised downward to 100 feet and 250 feet, respectively, based on site conditions and the nature of the work being performed. These buffer distances may also be modified if obstacles such as buildings or trees obscure the work area from active bird nests, or existing disturbances create an ambient background disturbance similar to the proposed disturbance.

⁵ The word nuisance is used in this EIR to mean “annoying, unpleasant, or obnoxious” and not in its legal sense.

- Enclose, cover, water twice daily or apply (non-toxic) soil binders to exposed stockpiles (dirt, sand, etc.)
- Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
- Replant vegetation in disturbed areas as quickly as possible.
- Install wheel dirt removal techniques (e.g., heavy gravel or steel grates) for all exiting trucks, or wash off the tires or tracks of all trucks and equipment leaving the site.
- Suspend excavation and grading activity when winds (instantaneous gusts) exceed 25 mph.

Construction Equipment Exhaust

- Minimize idling time (e.g., five minute maximum). Diesel equipment standing idle for more than five minutes shall be turned off.
- Maintain properly tuned equipment.
- Limit the hours of operation of heavy duty equipment and/or the amount of equipment in use.

Urban Heat Island

The main cause of the urban heat island effect is modification of the land surface by urban development using materials that effectively retain heat. As population centers grow, they tend to modify a greater and greater area of land and have a corresponding increase in average temperature. LGHS is located within a developed suburban area. Similar to the development of a house on a vacant lot, the replacement of the natural turf sports fields with synthetic turf would incrementally contribute to the urban heat island created by the surrounding development.

The urban heat island effect can be reduced through the use of green roofs and lighter-colored surfaces in urban areas, which reflect more sunlight and absorb less heat. Because LGHS is located in a developed area and the square footage of changed ground surface (natural turf to artificial turf and pavement) is relatively small compared to the surrounding development, the proposed project would not result in significant air quality impacts related to the heat island effect.

Construction Noise

Nearby noise-sensitive land uses include the high school itself, a church, and residences. Project construction would generate noise, and would temporarily increase noise levels at adjacent residences and classrooms. Construction noise varies, depending on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Project construction noise cannot be avoided. Reasonable regulation of the construction hours, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction materials, is necessary to promote the general welfare of the community, and maintain the quality of life.

Construction activities associated with the project would substantially increase noise levels in the project area, but major noise generating construction activities would be limited to a total period of about two months at the softball and multi-use fields, which would occur over the summer, when

school was not in session. The remainder of project construction would require substantially less heavy equipment and generate much lower noise levels. Construction activities would not be concentrated adjacent to any particular residence, group of residences, or classrooms over extended periods of time.

To minimize temporary construction noise effects at nearby sensitive land uses, as part of the project, the District will implement the following best management construction practices during construction:

- In accordance with the Town of Los Gatos Municipal Code (Sec. 16.20.035), construction would occur between the hours of 8:00 a.m. to 8:00 p.m. on weekdays and 9:00 a.m. to 7:00 p.m. weekends and holidays, and would meet at least one of the following conditions: 1) no individual piece of equipment shall produce a noise level exceeding eighty-five (85) dBA at twenty-five (25) feet; or 2) the noise level at any point outside of the property plane shall not exceed eighty-five (85) dBA.
- Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Locate stationary noise generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.
- Utilize "quiet" air compressors and other stationary noise sources where technology exists.
- The contractor shall prepare a detailed construction plan identifying the schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with the adjacent noise sensitive uses so that construction activities can be scheduled to minimize noise disturbance.
- Designate a "disturbance coordinator" who would be responsible for responding to project construction noise complaints. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented. The telephone number for the disturbance coordinator shall be posted at the construction site and included in the notice sent to neighbors regarding the construction schedule.

Transportation

Project construction activities would generate off-site traffic that would include the initial delivery of construction vehicles and equipment to the project site, the daily arrival and departure of construction workers, the removal of construction debris and soil, and the delivery of materials throughout the construction period. Traffic generated from construction activities would be temporary and spread over the five-month construction period. Given the proximity of the campus to regional roadways (i.e., State Route 17), construction trucks would have relatively direct routes. As such, temporary construction traffic impacts associated with the project would be less than significant.

Geology, Soils, Hydrology and Water Quality

Construction of the proposed project would require extensive grading and excavation exposing soil to the erosive forces of wind and water and increasing the potential for sedimentation downstream of the project site. The proposed area of disturbance is more than one acre; therefore, the project is required to apply for coverage under the State General Construction Permit to comply with federal National Pollutant Discharge Elimination System (NPDES) regulations.

The San Francisco Bay RWQCB also has issued a Municipal Regional Stormwater NPDES Permit (Permit Number CAS612008) (MRP). This permit replaces the formerly separate countywide municipal stormwater permits with a regional permit for 77 Bay Area municipalities, including the Town of Los Gatos. Under the provisions of the NPDES Municipal Permit, redevelopment projects that add and/or replace more than 10,000 square feet of impervious surface are required to design and construct stormwater treatment controls to treat post-construction stormwater runoff. When calculating the total area of a project's new and/or replaced impervious surface, areas of synthetic turf are considered pervious, if the design is sufficient to store and infiltrate the amount of stormwater specified in Provision C.3.d of the MRP.⁶ The proposed project would be designed to meet the requirements of Provision C.3.d; therefore, the proposed project would not create more than 10,000 square feet of impervious surfaces and would not be required to implement stormwater treatment controls under the MRP.

In accordance with Santa Clara Valley Urban Runoff Prevention Program (SCVURPPP) requirements, project construction activities would be required to adhere to appropriate construction Best Management Practices (BMPs) in order to minimize potential erosion, sedimentation and/or contamination of stormwater runoff from the project site. The project will also comply with all applicable requirements of the State National Pollutant Discharge Elimination System (NPDES) General Construction Activities Permit. The following BMPs will be implemented by the District prior to the start of earthmoving activities on-site and will continue until the construction is complete. Incorporation of these measures, as part of the proposed, project will ensure the project would not result in adverse effects on water quality.

- Waddles, sandbags and silt fabric will be placed to route sediment/debris away from storm drains. Earthmoving or other dust-producing activities would be suspended during periods of high winds.
- All exposed or disturbed soil surfaces would be watered at least twice daily to control dust as necessary.
- Stockpiles of soil or other materials that can be blown by the wind would be watered or covered.
- All trucks hauling soil, sand, and other loose materials would be covered or required to maintain at least two feet of freeboard.
- All paved access roads, parking areas, staging areas and residential streets adjacent to the construction sites would be swept daily (with water sweepers). In addition, a tire wash system may be required.
- Vegetation in disturbed areas would be replanted as quickly as possible.

⁶ Santa Clara Valley Urban Runoff Pollution Prevention Program. C.3 Stormwater Handbook. April 2012.

- All unpaved entrances to the site would be filled with rock to knock mud from truck tires prior to entering City streets.

Per the requirements of the NPDES General Construction Activities Permit. The following measures will also be implemented by the District:

- Prior to commencement of construction, the District will file a Notice of Intent (NOI) with the SWRCB and will develop, implement, and maintain a Storm Water Pollution Prevention Plan (SWPPP) to control the discharge of storm water pollutants including sediments associated with construction activities.
- The SWPPP will contain a site map(s) showing the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project.
- The SWPPP will list and show the location of the BMPs to be implemented by the project to minimize and control construction and post-construction runoff. Measures will include, but are not limited to, the aforementioned SCCURPPP BMPs.
- The SWPPP will contain a visual monitoring program and a chemical monitoring program for "non-visible" pollutants (to be implemented if there is a failure of BMPs).
- The District will certify annually that construction activities are in compliance with the requirements of the General Permit and the SWPPP. A Construction Compliance Status Report Form must be completed and submitted to the SWRCB by July 1st of each year.

Hazardous Materials

Government Code Section 65962.5 (Cortese List)

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The Cortese List includes lists maintained by the Department of Toxic Substances Control (DTSC), the State Water Resources Control Board (SWRCB), and the California Integrated Waste Management Board (CIWMB)⁷. The project site is not listed by the DTSC, SWRCB, or CIWMB as a hazardous materials site. Therefore, the potential for the proposed project to expose people or the environment to hazardous materials pursuant to Government Code Section 65962.5 is not considered significant.

Pesticides

Prior to the development of the high school campus, portions of the project site were used for agricultural production (i.e., orchards). Historic agricultural use of the project site likely included

⁷ The DTSC, SWRCB, and CIWMB hazardous material sites lists are available online at http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm, <http://www.ciwmb.ca.gov/Swis/search.aspx>, and <http://geotracker.waterboards.ca.gov/>, respectively.

use of pesticides, fertilizers, and other agricultural chemicals. Although most agricultural chemicals in use today have a short persistence, some agricultural chemicals used in the past may remain in soil, which may pose a health risk to persons who come into direct contact with the soil.

The soil on the fields was sampled and sent to a laboratory for testing. The lab analysis results were compared to the SF Bay RWQCB environmental screening levels (ESLs) for shallow soils and residential land use. All of the detected soil contaminants were either below the ESLs or within the range of expected background metal concentrations for soils in the Santa Clara County.⁸

Health and Safety

Some potential health and safety considerations related to synthetic turf include the following:

- Heat stress
- Injury
- Infection
- Latex allergy
- Chemical exposure

Heat Stress

Synthetic turf fields absorb heat, resulting in surface temperatures that are much higher than the temperatures of the surrounding air. A study completed at Penn State University measured surface temperatures on experimental plots of nine different types of infilled turf. Temperature measurements were made on three occasions. The average air temperatures reported were 79°, 78°, and 85°F. The corresponding average surface temperatures reported for the synthetic turf plots were 120°, 130° and 146°F.⁹

The surface temperatures reported on synthetic turf fields can get high enough to reach levels of discomfort and may contribute to heat stress among field users. While watering synthetic turf may reduce surface temperatures, other factors are likely to influence its effectiveness. At the present time, the District is unaware of any studies that have examined the role of synthetic turf in contributing to heat stress or that have compared the occurrence of heat stress among athletes playing on natural turf and synthetic turf.

Because of the potential for high temperatures on infilled synthetic turf fields, it is important that people who play or work on the fields be adequately informed about the potential for heat stress. People should also be advised to remain hydrated and to seek relief from the heat in shaded areas. As part of the proposed project, the District would implement a Synthetic Turf Health and Safety Plan. The District Synthetic Turf Health and Safety Plan would provide players, coaches, and

⁸ Cleary Consultants. Environmental Soil Screening Test Results for the New Synthetic Turf Fields, All-Weather Track And Tennis Courts, Los Gatos High School, 20 High School Court, Los Gatos, California. February 23, 2015.

⁹ State of New York Department of Health, FACT SHEET Crumb-Rubber Infilled Synthetic Turf Athletic Fields, August 2008.

students with information on the symptoms, prevention, and avoidance of heat stress. With the development and implementation of the Synthetic Turf Health and Safety Plan, the proposed artificial turf fields would not result in a significant hazard related to heat stress.

Injury

Many factors influence the rate of sports injuries, including the type of playing surface. There is a common misconception that there are more sports injuries on synthetic than on natural turf athletic fields. The many kinds of synthetic turf surfaces and changes in the turf products over the years complicate the assessment of how the playing surface affects injury rates. Other risk factors have been implicated in injury rates among athletes, in addition to the type of playing surface. These risk factors include level of competition, skill level, age, shoe type, previous injury and rehabilitation, and a number of individual physical characteristics. The condition of the natural turf field (e.g., weeds, holes, loose dirt, etc.) is also a factor. The research completed by the State of New York Department of Health identified five studies that compared injury (e.g., sprains, lacerations, fractures) rates among athletes when playing on infilled synthetic turf and natural turf fields. Although the ability of the studies to detect differences in the injury rates was limited by the small number of injuries reported, the studies concluded that there were no major differences in overall injury rates between natural and infilled synthetic turf. Although each study found some differences in specific injury types, there was no consistent pattern across the studies.¹⁰ As part of the proposed project, the District would implement a Synthetic Turf Health and Safety Plan. The District Synthetic Turf Health and Safety Plan will provide players and coaches with information on the use of proper athletic footwear to avoid leg and ligament injuries.

The potential for head injuries from contact with different field surfaces has been assessed by determining the ability of the surfaces to absorb impacts. The force of impact on many types of natural turf and all types of synthetic turf tested are within the acceptable level.

The abrasiveness of synthetic turf fibers may contribute to injury risk among athletes, particularly for abrasions or “turf burns.” The degree of abrasiveness appears to be dependent on the composition and shape of the turf fibers. A study completed at Penn State University suggests that synthetic turf with nylon fibers is more abrasive than synthetic turf with other types of fibers.¹¹ The materials used to make synthetic turf have advanced, and the synthetic turf available today is much less abrasive. The nylon turf is typically the older style short turf that does not have infill and stands upright. The synthetic turf proposed by the project is made of polyethylene fibers and has the infill (i.e., crumb rubber) that keeps the turf standing upright. With proper oversight and implementation of the Synthetic Turf Health and Safety Plan by the District, the synthetic turf fields would not result in a significant hazard related to increased injuries.

Infection Risk

There is a concern that infections, including Methicillin-resistant Staphylococcus aureus (MRSA), may be more common among users of synthetic turf fields than users of natural turf fields. This

¹⁰ Ibid.

¹¹ Ibid.

possibility has not been studied systematically, and no definitive statements can be made about differences in risk between the two surfaces.

At least two questions are important in evaluating the risk of infection. First, does skin damage occur more frequently on synthetic turf than natural turf, thus providing a place where infections are more likely to occur? Secondly, are there more germs on synthetic turf than natural turf?

While injury studies have not consistently identified differences in abrasion and laceration risks between natural and infilled synthetic turf, some types of synthetic turf may result in more skin abrasions. Although very few tests have been performed, the available data do not suggest the widespread presence of infectious agents, such as MRSA, on synthetic turf fields. Also, the available information indicates that outdoor or indoor synthetic turf surfaces are no more likely to harbor infectious agents than other surfaces in those same environments. Disease outbreak investigations completed in response to illnesses caused by a variety of germs (e.g., MRSA, Campylobacter, meningococcus, echovirus, herpes simplex virus, hepatitis virus, and coxsackie virus) have not identified playing fields, either natural or synthetic, as likely to increase the risk of transmitting infections.¹²

Skin cuts and abrasions that may result from contact with athletic fields, including both natural and synthetic fields, are susceptible to infection. Often, it is the locker room, rather than the playing surface, that is the source of infection. Common sense precautions and treatment, such as advising student athletes with skin abrasions to clean the wounds and seek prompt medical attention, are one way to avoid infection. Additionally, students should avoid sharing towels (on and off the field), equipment, razors, soap and other personal objects with others because sharing these items can spread germs. As part of the proposed project, the District would implement a Synthetic Turf Health and Safety Plan, which would inform students, athletes, and coaches about the proper care of abrasions and prevention of infection. The Synthetic Turf Health and Safety Plan also includes regular field cleansing and signage restricting dogs on the synthetic turf fields. With the preparation and implementation of the Synthetic Turf Health and Safety Plan, the proposed artificial turf would not result in a significant hazard related to increased infections.

Latex Allergy

Latex, a substance found in natural rubber, contains substances called “latex allergens,” which can cause an allergic response in some people. About six percent of the general population is allergic to the substances in latex. Tire rubber, the source of the crumb rubber infill material used to create artificial turf contains the latex allergen, although at much lower levels than in latex gloves and other consumer products. People playing on synthetic turf may be exposed to latex allergens through direct contact with the skin (dermal exposure) and inhalation of small rubber particles suspended in the air. It should be noted that small particles of tire rubber are regularly suspended in roadway dust due to tire wear on heavily traveled roadways. A study completed for the California Environmental Protection Agency to determine if crumb rubber can cause an allergic response was non-conclusive. The District is unaware of any occurrences of latex allergy associated with contact with crumb rubber

¹² Ibid.

or synthetic turf fields. As a precaution, the Synthetic Turf Health and Safety Plan will include a statement noting the presence of latex in the crumb rubber, as a warning to any students with latex allergies. Due to the low likelihood of occurrence, potential hazards related to latex allergies from the proposed synthetic fields are considered a less than significant impact.

Chemical Exposure

Exposure to a chemical requires contact with the chemical. Unintended contact with a chemical can occur in four ways: swallowing (ingestion exposure), breathing (inhalation exposure), and having it come in contact with the skin (dermal exposure) or eyes (ocular exposure). The potential for harmful effects from exposure to a chemical depends on the amount of the chemical a person contacts, how the chemical enters the body (ingestion, inhalation, dermal, or ocular), how often and/or the duration contact occurs, and the toxic properties of the chemical. Other factors that can influence a person's risk for adverse health effects from environmental chemicals include age, gender, general health, genetic differences, exposure to other chemicals and lifestyle choices. Earlier varieties of synthetic turf fibers contained elevated levels of lead such that it posed a potential health risk to children. The materials used to make synthetic turf have advanced, however, and lead-free synthetic turf is now available. The synthetic turf used for the proposed project would not contain lead. For this reason, the project would not result in a significant health hazard due to lead exposure.

Because crumb rubber, the infill product of synthetic turf, is manufactured from used tires, it contains the same chemicals as tire rubber. Tires are manufactured from natural and synthetic rubbers along with numerous chemical additives, including zinc, sulfur, carbon black, and oils that contain polyaromatic hydrocarbons (PAHs) and volatile organic chemicals. Many studies have been completed in the United States and Europe to evaluate potential health hazards of crumb rubber in synthetic fields. A summary of a few of these studies is provided below.

Studies completed by the California Environmental Protection Agency Office of Environmental Health Hazard Assessment and the Norwegian Institute of Public Health to assess the potential for ingestion exposure to the chemicals in crumb rubber by children playing on synthetic turf concluded that health risks to children resulting from the ingestion of crumb rubber are low.¹³

The Norwegian Institute of Public Health also collected data to assess potential health risks resulting from dermal and inhalation exposures to chemicals contained in synthetic turf fields. Health assessments were completed for adults and children. The researchers concluded that adverse health effects resulting from dermal exposures to crumb rubber or from inhalation exposures to organic chemicals released from the fields are unlikely.¹⁴

A French study measured the concentrations of organic chemicals emitted as gases (known as volatile organic compounds or VOCs) from crumb rubber under laboratory conditions. The data were used by the French National Institute for Industrial Environment and Risks to evaluate possible health effects from inhaling VOCs released from synthetic turf. The study authors concluded that the

¹³ Ibid.

¹⁴ Ibid.

concentrations of organic compounds emitted did not pose a health concern for athletes, officials, or spectators.¹⁵

The New York State Department of Health concluded that based on their review of the available information on crumb rubber and crumb rubber-infilled turf fields, the ingestion, dermal or inhalation exposures to chemicals in or released from crumb rubber do not pose a significant public health concern. Based upon the above studies, chemical exposure from synthetic fields is considered a less than significant health hazard impact.

Aesthetics

In the vicinity of the project site, State Route 17 is an eligible (but not officially designated) state scenic highway south of State Route 9 (Big Basin-Saratoga-Los Gatos Road), and State Route 9 is an officially state-designated scenic highway west of State Route 17. The Los Gatos High School campus is not located on a hill. The project area is relatively flat and developed and vegetated with numerous tall trees. Due to the relatively flat topography in the immediate area of the campus, surrounding development, and numerous tall trees, no direct views of the athletic fields are available from either of these roadways. Additionally, upon completion, the synthetic turf fields will look very similar to the existing natural turf fields. Given these factors, the project would have no adverse effect on scenic resources within state scenic highways.

CEQA Exemption

One or more of the following CEQA Categorical Exemptions are applicable to the proposed project:

Class 1 - Section 15301. Existing Facilities: Operation, repair, maintenance or minor alterations to a public facility involving no or negligible expansion of use.

Class 2 - Section 15302. Replacement or Reconstruction: Replacement or reconstruction of structures and facilities where the new structure will be located on the same site for substantially the same purpose.

Class 3 - Section 15303. New Construction or Conversion of Small Structures: Construction and location of limited numbers of new, small facilities or structures; installation of small new equipment and facilities in small structures; and the conversion of small structures from one use to another where only small modifications are made to the exterior of the structure.

Class 4 - Section 15304. Minor Alterations to Land: Minor public or private alterations in the condition of land, water, and/or vegetation that does not remove healthy, mature, scenic trees.

Class 11 - Section 15311. Accessory Structures: Construction or replacement of minor structures accessory to existing commercial, industrial, or institutional facilities.

¹⁵ Ibid.

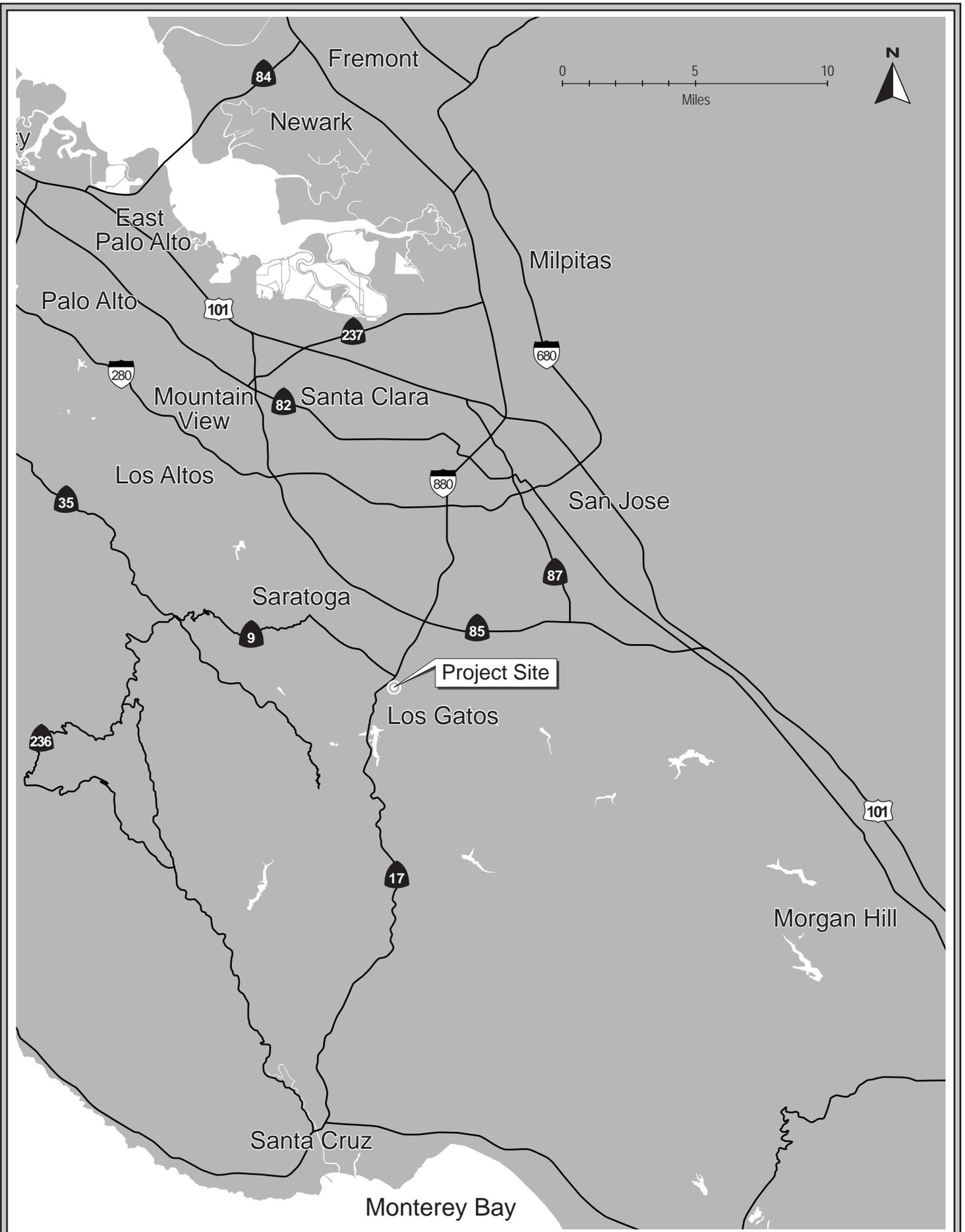
Class 14 - Section 15314. Minor Additions to Schools: Minor additions to schools within school grounds that do not increase student capacity by more than 25% or ten classrooms.

Class 30 - Section 15330. Minor Actions to Prevent, Minimize, Stabilize, Mitigate, or Eliminate the Release or Threat of Release or Hazardous Waste or Hazardous Substances: Any minor cleanup actions taken to prevent, minimize, stabilize, mitigate, or eliminate the release of hazardous waste or substances which are small or medium removal actions costing \$1 million or less.

The proposed project is covered under these classes of categorical exemptions, because the proposed improvements to the existing LGHS recreation facilities are minor, would occur within the boundary of the existing Los Gatos High School campus, would be located on the same site for the same purpose, and would not involve expansion of use.

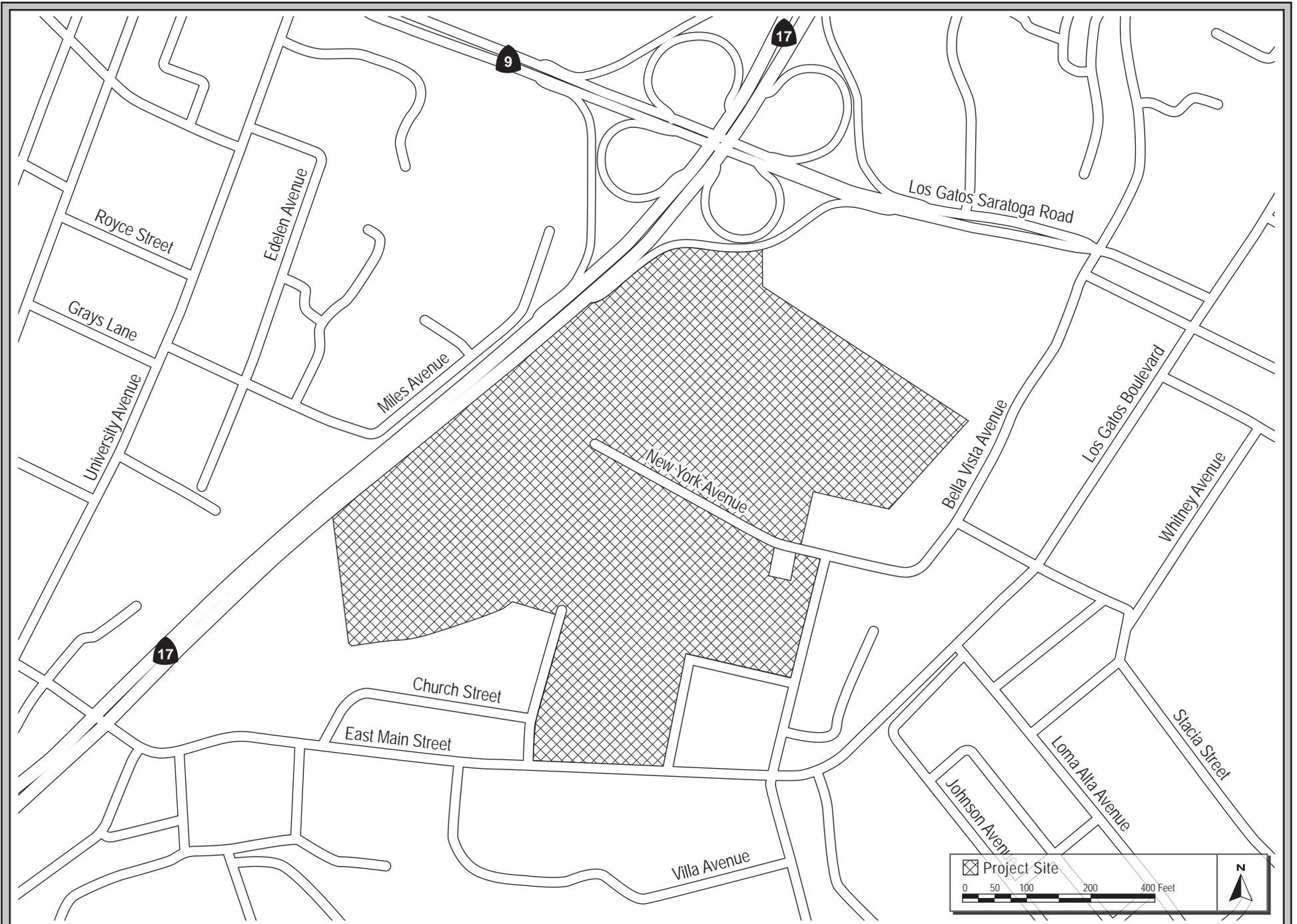
Per section 15300.2 of the California Environmental Quality Act (CEQA) Guidelines, it has been determined that the proposed project would not cause a substantial adverse change in significant historic resources; would not have any substantial effects due to unusual circumstances; is not located within a sensitive environment; would not impact any toxic sites listed by the California Environmental Protection Agency; would not affect scenic resources within an official state scenic highway; and would not result in cumulative impacts that would be considerable.

As discussed in the memorandum, construction of the improvements would not require any removal of or adversely affect any mature trees or otherwise have a substantial effect on biological resources; would not result in any substantial adverse effects on geology, soils, hydrology and water quality; air quality; and noise. Furthermore, implementation of these improvements would not increase the student capacity at the campus. For these reasons and those stated above, the project is exempt from the provisions of CEQA.



REGIONAL MAP

FIGURE 1



VICINITY MAP

FIGURE 2



AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 3