Draft Environmental Impact Report

Morgan Hill Devco Residential Project

SCH No. 2021060587

Prepared by

CITY OF MORGAN HILL

In Consultation with

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Section 1.0 Summary

The City of Morgan Hill, as the Lead Agency, has prepared this Draft Environmental Impact Report (EIR) for the Morgan Hill Devco Residential Project in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

As the CEQA Lead Agency for this project, the City of Morgan Hill is required to consider the information in this EIR along with any other available information in deciding whether to approve the project. The basic requirements for an EIR include discussions of the environmental setting, significant environmental impacts including growth-inducing impacts, cumulative impacts, mitigation measures, and alternatives. It is not the intent of an EIR to recommend either approval or denial of a project.

1.1 Summary of Project

The approximately 69.4-acre project site is located at the northeast quadrant of Barrett Avenue and Hill Road in the City of Morgan Hill. The project proposes to subdivide the site into 320 lots and construct a total of 320 residential units, comprised of 223 single-family detached houses, 42 court-style homes, 21 senior cottages, and 34 senior duets. In addition to the aforementioned 320 primary residences, the project would also include 44 accessory dwelling units (ADUs[1]), which would be interspersed among the lots to be developed with single-family detached houses.

The project proposes off-site improvements to Jackson Park, Jackson Elementary School, Hill Road, and Barrett Avenue. The project would include approximately six acres of private open space (consisting of passive park and recreation areas) and four acres of public open space (consisting of 1.71 acres of trail segments throughout the project site and 2.19 acres of park dedicated to Jackson Park).

1.2 Summary of Significant Impacts

The following Table 1.2-1 is a summary of the significant environmental impacts identified and discussed in the EIR, and the mitigation measures proposed to avoid or reduce those impacts. The project description and full discussion of the impacts and mitigation measures can be found in Section 3.0 Project Information and Description and Section 4.0 Environmental Setting, Impacts, and Mitigation of this EIR.

[1] As defined by the City of Morgan Hill Municipal Code, an ADU is a secondary dwelling unit that is attached or detached to a proposed or existing single-family residence. Contrastingly, a Junior ADU is constructed within the walls of the proposed single-family residence. JADUs are required to have a separate entrance and kitchen but can share a bathroom with the main house.

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures

Significant Impacts	Mitigation and Avoidance Measures
Agriculture	
Impact AG-1: Conversion of approximately 44 acres of Prime Farmland and approximately five acres of Farmland of Statewide Importance would constitute a significant impact to agricultural resources. **(Significant and Unavoidable Impact)**	**MM AG-1.1:** A minimum of one acre of agricultural land (1:1 mitigation ratio) shall be preserved for each acre of agricultural land changed to a non-agricultural use. The required acreage of area to be protected through an agricultural conservation easement or agricultural preservation in-lieu fee will depend on the measurement of affected area. The area of land designated as Prime Farmland and Farmland of Statewide Importance shall be used for calculating the required mitigation. **MM AG-1.2:** Conversion of agricultural land shall require off-setting acquisition and/or dedication of agricultural conservation easements over approved agricultural mitigation land, or payment to the City of the agricultural preservation in-lieu fee, to support agricultural preservation activities. Developer acquisition/dedication of easements shall require the project to pay an agricultural lands preservation program stewardship fee to cover administrative costs and ongoing management and monitoring of the easements. Agricultural mitigation fees shall be required prior to the acceptance of a final parcel or subdivision map, or prior to issuance of building or grading permits. Easement dedication is required prior to issuance of building permits. Agricultural mitigation fees shall be required prior to the acceptance of a final parcel or subdivision map, or prior to issuance of building or grading permits. Easement dedication is required prior to issuance of building permits.
Air Quality	
Impact AIR-1: Project construction would exceed the Bay Area Air Quality Management District (BAAQMD) significance threshold for reactive organic gases (ROGs). **(Less than Significant Impact with Mitigation Incorporated)**	**MM AIR-1.1:** During project construction, the project applicant shall use “super-compliant” low volatile organic compound (i.e., VOC) coatings that have emissions lower than current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), for at least 50 percent of all residential interior paints and 50 percent of exterior paints. This includes all architectural coatings applied during both construction and reapplications throughout the project’s operational lifetime. At least 50 percent of coatings applied must meet a “super-compliant" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project’s operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used. Examples of “super-compliant” coatings are contained in the South Coast Air Quality Management District’s website.
Impact AIR-2: The project would exceed the BAAQMD single-source significance threshold for cancer risks at the maximally exposed individuals (MEI) location during construction.	**MM AIR-2.1:** Prior to issuance of any demolition, grading, and/or building permits (whichever occurs earliest), the project applicant shall submit a construction operations plan to the Development Services Director that reduces diesel

(Less than Significant Impact with Mitigation Incorporated)	particulate matter emissions by 50 percent such that increased cancer risk and annual $PM_{2.5}$ concentrations would be reduced below TAC significance levels. The plan shall include the following: 1. 60 percent of all construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards and the remaining 40 percent shall meet U.S. EPA Tier 3 emission standards, if feasible, otherwise, • If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB verifiable diesel emission control devices that altogether achieve a 50 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment. Alternatively, or in combination, • Use of electrical or non-diesel equipment with lower particulate matter emissions that meet the PM reduction requirements above. 2. Alternatively, the applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction diesel particulate matter emissions by 50 percent or greater. Elements of the plan could include a combination of some of the following measures: • Implementation of No. 1 above to use 60 percent Tier 4 and 40 percent Tier 3 or alternatively fueled equipment, • Installation of electric power lines during early construction phases to avoid use of diesel generators and compressors, • Use of electrically-powered equipment, • Forklifts and aerial lifts used for exterior and interior building construction shall be electric or propane/natural gas powered, • Change in construction build-out plans to lengthen phases, and • Implementation of different building techniques that result in less diesel equipment usage.
Biological Resources	
Impact BIO-1: The project could disturb nesting bird activity during construction.**(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-1.1:** To the extent feasible, construction activities shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31, inclusive.

	If construction activities and/or tree removal cannot be scheduled to occur between September 1 and January 31, preconstruction surveys for nesting birds shall be conducted by a qualified biologist or ornithologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than seven days prior to the initiation of demolition or construction activities including tree removal and pruning. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation. The written report shall indicate the results of the survey, a map of identified active nests, and any designated buffer zones or other protective measures to be implemented with the project.
Impact BIO-2: The project could impact burrowing owl habitat or individuals during construction. **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-2.1:** Preconstruction surveys for burrowing owls shall be conducted prior to the initiation of construction activities within suitable burrowing owl roosting habitat (i.e., ruderal grassland habitat or agricultural lands with burrows of California ground squirrels), or within 250 feet of this habitat. During the initial site visit, a qualified biologist shall survey the entire project site and areas within 250 feet by walking transects with centerlines no more than 50 feet apart to ensure complete visual coverage and look for suitable burrows that could be used by burrowing owls. If no suitable burrows are present, no additional surveys are required. If suitable burrows are determined to be present within 250 feet of the project impact areas, a qualified biologist shall conduct a second survey to determine whether owls are present in areas where they could be affected by proposed activities. The surveys shall last a minimum of three hours, beginning one hour before sunrise and continuing until two hours after sunrise, or beginning two hours before sunset and continuing until one hour after sunset. The first survey may occur up to 14 days prior to the start of construction activities in any given area, and the second survey shall be conducted within two days prior to the start of construction activities. The report indicating the result of the surveys and any designated buffer zones shall be submitted to the satisfaction of the Development Services Director or Director's designee prior to initiation of construction activities. • If burrowing owls are detected during the pre-activity survey, a 250-foot buffer, within which no newly initiated construction-related activities will be permissible, shall be maintained between

	construction activities and occupied burrows. Though highly unlikely, owls present between February 1 and September 8 will be assumed to be nesting, and the 250-foot protected areas shall remain in effect until September 8, or until the burrow is no longer occupied, whichever occurs first.
	
	• If maintaining a 250-foot buffer around active owl burrows is not feasible, the buffer may be reduced if (1) the individual or nest is not disturbed, and (2) the contractor develops an avoidance, minimization, and monitoring plan that shall be reviewed and approved by the CDFW and USFWS prior to project construction. The plan shall include the following measures:
	  • A qualified biologist shall monitor the owls for at least three days prior to construction as well as during construction.
	  • If the biologist observes no change in the owls' nesting or foraging behavior, construction activities may proceed.
	  • If changes in the owls' behavior as a result of work activities are observed, activities shall cease within 250 feet of the active burrow location(s). Work activities may resume when the burrows are no longer occupied.
	  • If monitoring indicates that the burrow is no longer in use by owls, the disturbance-free buffer may be removed.

Impact BIO-3: The project could impact roosting bats during construction. **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-3.1:** A pre-activity survey for day-roosting bats shall be conducted prior to the onset of demolition of existing buildings or ground-disturbing activities within 100 feet of existing buildings. A qualified biologist will conduct a survey for evidence of bat use within suitable habitat. If evidence of use is observed, but the biologist is unable to determine whether or not the roost is occupied at that time, a dusk acoustic survey may be necessary to determine if bats are present and to identify the specific location of any bat colony. If no active bat day roost is located, no further measures are necessary. The report indicating the result of the survey shall be submitted to the satisfaction of the Development Services Director or Director's designee prior to initiation of construction activities (demolition or ground-disturbing activities). If an active day roost is located during the maternity season (March 15 to July 31), the biologist will attempt to determine whether the roost is occupied by nonbreeding bats (e.g., a bachelor roost consisting of males) or whether the roots is occupied by females with young. If females with young are present, a disturbance-free buffer zone (determined by a qualified bat biologist) shall be implemented until July 31, or

	until the young are able to fly independently (whichever occurs first). If a non-maternity roost is present during the maternity season, or during the nonmaternity season, the individuals shall be safely evicted between August 1 and October 15 or between February 15 and March 16 under the supervision of, and following eviction methods developed by, a qualified biologist. Demolition or construction can begin after the bats have been evicted.
Impact BIO-4: The project could impact monarch butterfly eggs, larvae, or pupae during construction. **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-4.1:** In the San Francisco Bay area, monarch butterflies may begin laying eggs as early as March, and the last generation of the year hatches in September and October. Therefore, if milkweed plants are impacted from November through February, they are not expected to support eggs, larvae, or pupae, and no measures are necessary for project activities during the period November 1 through the end of February. Prior to disturbance of any vegetated habitat that could support milkweed during the period March 1 through October 31, surveys shall be performed for the species' larval host plants. This survey shall occur within 2 weeks prior to the start of construction. A qualified biologist will survey the project impact areas, as well as surrounding areas within 50 feet (to the extent access allows), to identify any larval host plants. Any detected host plants shall be checked for eggs, larvae, or pupae. If no host plants are detected, or if no monarch eggs, larvae, or pupae are detected on those plants, no further action will be necessary. The report indicating the result of the survey shall be submitted to the satisfaction of the Development Services Director or Director's designee prior to initiation of construction activities. If monarch eggs, larvae, or pupae are detected, one of the following measures will be implemented: • They will be protected by establishing a buffer zone around individual plants or populations. The buffer zone will be determined by a qualified biologist to avoid direct and indirect impacts (such as dust mobilization onto plants) on the monarchs and the plants on which eggs, larvae, or pupae occur. Project personnel and equipment shall not operate within such areas. All avoided larval host plants shall be clearly marked in the field with fencing or flagging. The buffer zone shall remain in place until monarchs are no longer present on those plants. If larvae are detected within the survey area and impacts to the plants supporting those individuals cannot be delayed until the emergence of individual butterflies as adults, a qualified biologist may relocate larvae to milkweed plants more than 50 feet outside the impact area, if those milkweeds are not already occupied by monarch eggs or larvae.

	Alternatively, raising monarch butterflies in captivity is feasible, and eggs, larvae, or pupae that cannot be avoided could be raised to maturity in captivity and then released into habitat having suitable nectar sources. Only a qualified biologist shall handle or raise monarchs. If the monarch butterfly is listed (e.g., under FESA) prior to implementation of these measures, appropriate approval from the USFWS would be necessary to handle or relocate monarchs, or to raise them in captivity.
Impact BIO-5: The project would result in riparian encroachment that would constitute a significant impact. **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-5.1:** Compensate for new urban development within setback. If a riparian setback exception is granted to the project, the project will introduce 0.18-acre of new urban development encroaching into the riparian setback. To compensate for this degradation of setback functions in the area, the project shall restore native riparian habitat at a 2:1 (restored area to impacted area) ratio, on an acreage basis, within other planned open space areas in the riparian setbacks. Native herbaceous plant species appropriate to the local area such as deergrass and narrow leaf milkweed shall be planted within the creek bottom and slopes. Native trees and shrubs appropriate to the local area such as coast live oak and coyote brush shall be planted and maintained to provide additional wildlife habitat adjacent to Tennant Creek. Coordinate with Valley Water to determine whether any woody vegetation can be planted within the banks of the creek or whether it would need to be installed above the top of bank, in order to ensure flood flows are not impeded by vegetation in the channel. A qualified restoration ecologist shall develop a riparian setback enhancement and monitoring plan, which will contain the following components: • Goal of the restoration to achieve no net loss of habitat functions and values; • Restoration design (planting plan, soil amendments and other site preparation elements as appropriate, maintenance plan, and remedial measures/adaptive management); • Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc). At a minimum, success criteria will include elimination of non-native woody species from within the enhancement area and establishment of native trees and shrubs; and • Contingency plan for mitigation elements that do not meet performance or final success criteria. The plan shall be approved by the City of Morgan Hill and the Santa Clara Valley Habitat Agency prior to initiation of impacts to currently undeveloped habitat within the riparian setback.
Cultural Resources	
Impact CUL-1: Ground-disturbing construction activities could result in impacts to archaeological resources. **(Less than**	**MM CUL-1.1:** A moderate potential exists for unrecorded historic-period archaeological resources to be within the project area. The developer shall enter into written contracts with an archaeologist and the Tamien Nation Tribe, and pay

Significant Impact with Mitigation Incorporated)	all fees associated with the activities required by this Mitigation Measure. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply: (a) Prior to the start of grading or earthmoving activity on the "first day of construction," the archaeologist and Tribal Monitor shall hold a pre-construction meeting for the purposes of "cultural sensitivity training" with the general contractor or subcontractors. (b) A Tamien Nation Tribal Monitor shall be present on-site to monitor all ground-disturbing activities and an archaeologist shall be on-call. If the site is large and the area being disturbed cannot be monitored all at the same time by one person, then more monitors shall be required. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below: 1. Work at the location of the find shall halt immediately within 50 feet of the find. If an archaeologist is not present at the time of the discovery, the applicant shall contact an archaeologist for evaluation of the find to determine whether it qualifies as a unique archaeological resource as defined by this chapter; 2. If the find is determined not to be a Unique Archaeological resource, construction can continue. The archaeologist shall prepare a brief informal memo/letter in collaboration with a tribal representative that describes and assesses the significance of the resource, including a discussion of the methods used to determine significance for the find; 3. If the find appears significant and to qualify as a unique archaeological resource, the archaeologist shall determine if the resource can be avoided and shall detail avoidance procedures in a formal memo/letter; and 4. If the resource cannot be avoided, the archaeologist in collaboration with a tribal representative shall develop within forty-eight hours an action plan to avoid or minimize impacts. The field crew shall not proceed until the action plan is approved by the City' Development Services Director or Director's designee. The action plan shall be in conformance with California Public Resources Code 21083.2. An archaeologist shall be on-call during

ground disturbing activities. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below.

(c) The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply. If human remains are discovered, it is probable they are the remains of Native Americans.

1. If human remains are encountered, they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need-to-know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs, and around artifacts shall be upheld.

2. Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.

3. Surgical masks should also be worn to prevent exposure to pathogens that may be associated with the remains.

(d) In the event that known or suspected Native American remains are encountered, or significant historic or archaeological materials are discovered, ground-disturbing activities shall be immediately stopped. Examples of significant historic or archaeological materials include, but are not limited to, concentrations of historic artifacts (e.g., bottles, ceramics) or prehistoric artifacts (chipped chert or obsidian, arrow points, ground stone mortars and pestles), culturally altered ash stained midden soils associated with pre-contact Native American habitation sites, concentrations of fire-altered rock and/or burned or charred organic materials and historic structure remains such as stone lined building foundations, wells, or privy pits. Ground-disturbing project activities may continue in other areas that are outside the exclusion zone as defined below.

(e) An “exclusion zone” where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the contractor foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time of discovery, by the monitoring

archaeologist and tribal representative (typically 25 to 50 feet for single burial or archaeological finds).

(f) The discovery locale shall be secured (e.g., 24-hour surveillance) as directed by the City or County if considered prudent to avoid further disturbances.

(g) The contractor foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:

- The City of Morgan Hill Development Services Director (408) 779-7247
- The Contractor's Point(s) of Contact
- The Coroner of the County of Santa Clara (if human remains found) (408) 793-1900
- The Native American Heritage Commission (NAHC) in Sacramento (916) 653-4082
- The Amah Mutsun Tribal Band (916) 481-5785 (H) or (916) 743-5833 (C)
- The Tamien Nation (707) 295-4011 (office) and (925) 336-5359 (THPO)

(h) The Coroner has two working days to examine the remains after being notified of the discovery. If the remains are Native American, the Coroner has 24 hours to notify the NAHC.

(i) The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD). (Note: NAHC policy holds that the Native American Monitor will not be designated as the MLD).

(j) Within 24 hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose.

(k) Within 24 hours of their notification by the NAHC, the MLD may recommend to the City's Development Services Director or Director's designee, the recommended means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials. Only those osteological analyses or DNA analyses recommended by the appropriate tribe may be considered and carried out.

(i) If the MLD recommendation is rejected by the City of Morgan Hill, the parties will attempt to mediate the disagreement with the NAHC. If mediation fails, then the

	remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance. **MM CUL-1.2:** The project applicant shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources including prehistoric Native American burials. Any archaeological site information supplied to the Contractor Foreman or authorized representative shall be considered confidential. Information on the project plans shall be verified by the City's Development Services Director or Director's designee prior to issuance of a grading permit or any building permit.
Greenhouse Gas Emissions	
Impact GHG-1: The project would exceed the BAAQMD annual emissions bright-line threshold and service population threshold for greenhouse gas (GHG) emissions. **(Less than Significant Impact with Mitigation Incorporated)**	**MM GHG-1.1:** Prior to issuance of grading permits on the project, the project applicant shall submit and implement a GHG reduction plan to the Development Services Director or Director's designee that reduces the project's operational GHG emissions in 2028 by 841 MT CO2e/year. The GHG reduction plan shall be implemented until the City adopts its GHG reduction plan consistent with the State's interim 2030 GHG emissions reduction target of 40 percent below 1990 levels. All feasible project design and operational measures shall be implemented prior to the purchase of credits. The GHG reduction plan shall include a combination of the measures listed below to reduce project GHG impacts: • Implementation of a transportation demand management (TDM) program to reduce mobile GHG emissions; • Installation of solar power systems or other renewable electric generating systems that provide electricity to power on-site equipment and possibly provide excess electric power; • Provide infrastructure for electric vehicle charging in residential units and parking areas (i.e., provide 220 VAC power); • Increase water conservation above State average conditions for residential uses by installing low flow water utilities and irrigation; and • Purchase verifiable carbon emission offsets that meet all of the following standards: o Registry Performance Standards: The registry shall account for and quantify emission reductions using clear and defined standards and incorporating recognized principles of GHG emissions reduction accounting, including those set forth in the ISO 14064 and the WRI/WBCSD Greenhouse Gas Protocol for Project Accounting: ▪ The registry shall use clear information sufficient for reviewers to assess credibility of GHG emission reductions underlying the

		carbon offset credits. Upon request by the City's Development Services Director or his or her designee, any governmental entity, or any stakeholder, ▪ The registry shall provide the following information within a reasonable time period in connection with any carbon offset credit retired by the applicant: (i) the applicable quantification protocol; and (ii) all third-party confirmation or verification reports issued in connection with the carbon offset credits. Such information shall be sufficient to monitor compliance by the project applicant with this mitigation measure. ▪ Carbon Offset Credit Performance Standards: The carbon offset credits retired by the applicant for the purpose of mitigating GHG emissions shall represent GHG emission reductions that are real, permanent, additional, quantifiable, verifiable and enforceable. To demonstrate compliance with such requirements, the developer shall provide the following to the City's Development Services Director or his or her designee: (i) the protocol used to quantify and issue such carbon offset credits, (ii) the third-party verification report(s) pursuant to which such carbon offset credits were issued, and (iii) the unique serial numbers of the carbon offset credits to be retired to ensure that the offset cannot be further used in any manner. The Development Services Director or his or her designee shall reject any carbon offset credits that do not comply with these requirements, and where reductions are not direct reductions within a confined project boundary or provide opportunities for reversal of the avoided emissions. The Development Services Director or his or her designee shall reject any credits for a project that includes technology or GHG abatement

	practices that are already widely used. ▪ Geographic Limitations: The carbon offsets shall be from credit projects developed in the United States. Carbon offset credits resulting from international credit projects shall not be acceptable to satisfy this mitigation measure. ▪ Enforcement: The permits relating to the project shall be conditioned on achievement of GHG mitigation milestones. The purchase and retirement of carbon offset credits required to mitigate the GHG emissions resulting from the operation of the project shall be a condition of the issuance of a certificate of occupancy, temporary or permanent, for the project and as an issuance for continued operation. Should the City determine that the offset credits are non-compliant with the requirements in this mitigation measure, the City may issue a notice of non-consistency and cease permitting activities and/or stop project operations, until the City determines via an issued public notice that the offsets comply with the aforementioned standards.
Hazards and Hazardous Materials	
Impact HAZ-1: Contaminated soils have the potential to release chemicals to the environment that could expose construction workers and nearby land uses. **(Less than Significant Impact with Mitigation Incorporated)**	**MM HAZ-1.1:** Prior to issuance of a site grading permit, a corrective action/risk management plan (e.g., remedial action plan, removal action workplan, or Site Management Plan) shall be prepared that reflects the results of the on-site investigations. The corrective action/risk management plan shall describe mitigation measures (e.g., removal of contaminated soil) necessary to protect the health and safety of construction workers, nearby residents, and the environment, and establish appropriate management practices for handling and monitoring of impacted soil that may be encountered during construction activities. The corrective action/risk management plan shall describe protocols for the profiling of soil, if any, planned for off-site disposal. The corrective action/risk management plan should be prepared by an environmental professional and be submitted to an appropriate overseeing regulatory agency (e.g., Water Board, California DTSC, or SCCDEH) for review. Regulatory agency approval shall be obtained prior to commencing earthwork activities in the vicinity of the identified impacted soil. This measure shall be completed under regulatory agency oversight and meet all applicable

	federal, state, and local laws, regulations, and requirements. Following completion, a report documenting compliance with the provisions of the corrective action/risk management plan and describing the work completed shall be submitted to and approved by the overseeing regulatory agency.
Impact HAZ-2: The project would demolish the existing buildings, which could release asbestos particles and expose construction workers and nearby residents to harmful levels of asbestos. **(Less than Significant Impact with Mitigation Incorporated)**	**MM HAZ-2.1:** Prior to issuance of a demolition permit for on-site structures, the project applicant shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the Building Division an asbestos and lead survey. If asbestos-containing materials or lead-containing materials are not discovered during the survey, further mitigation related to asbestos-containing materials or lead-containing materials shall not be required. If asbestos-containing materials and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site asbestos-containing materials and/or lead-containing materials shall be removed in accordance with current California Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all CalEPA regulations, prior to the demolition and/or removal of the on-site structures. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos and lead abatement contractor in accordance with Title 8 CCR1529 and Title 8 CCR 1532.1 regarding asbestos and lead training, engineering controls, and certifications. The applicant shall submit the work plan to the City for review and approval. The City has the right to defer the work plan to the Santa Clara County Department of Environmental Health for additional review. Materials containing more than one (1) percent asbestos that is friable are also subject to BAAQMD regulations. Removal of materials containing more than one (1) percent friable asbestos shall be completed in accordance with BAAQMD Section 11-2-303.
Impact HAZ-3: Improper abandonment of wells and septic systems on-site could result in groundwater contamination. **(Less than Significant Impact with Mitigation Incorporated)**	**MM HAZ-3.1:** Prior to issuance of a grading permit, the project applicant shall research well records from Valley Water and attempt to locate abandoned wells at the site. If a well is located on site, the project applicant or contractor shall contact Valley Water's Wells Hotline immediately to assist in the identification of abandoned/unregistered wells or structures and help determine the appropriate means of addressing them. If the wells are identified, or subsequently encountered during earthwork activities, the applicant shall obtain a well destruction permit from Valley Water, and the wells shall be properly destroyed in accordance with Valley Water Ordinance 90-1. If septic systems are encountered during earthwork activities, those systems shall be abandoned in accordance with SCCDEH requirements.
Noise and Vibration	
Impact NOI-1: Project construction would generate vibration levels that could damage adjacent buildings. The project would not result in generation of excessive groundborne	**MM NOI-1.1:** To address potential impacts related to vibration, the project shall implement the following vibration controls:

vibration or groundborne noise levels. **(Less than Significant Impact with Mitigation Incorporated)**	• Prohibit the use of heavy vibration-generating construction equipment within 25 feet of residences. Use a smaller vibratory roller, such as the Caterpillar model CP433E vibratory compactor, when compacting materials within 25 feet of residences to the north and east. • Avoid dropping heavy equipment within 25 feet of residences. Use alternative methods, where feasible. • Place operating equipment on the construction site as far as possible from vibration-sensitive receptors. • Avoid using vibratory rollers or tampers within 25 feet of sensitive uses. • Modify/design or identify alternative construction methods to reduce vibration levels below the limits. • The contractor shall alert heavy equipment operators to the close proximity of the adjacent structures so they can exercise extra care.
Transportation	
Impact TRN-1: The project would generate 33.25 vehicle miles traveled (VMT) daily per capita, exceeding the threshold of 20.94 VMT per capita.**(Significant and Unavoidable Impact)**	**MM TRN-1.1:** The project applicant shall develop and implement a Transportation Demand Management (TDM) plan which targets a reduction in residential vehicle trips to and from the site. The TDM plan shall be prepared by a qualified traffic consultant and in coordination with the City of Morgan Hill Development Services Director or Designee. The TDM plan shall quantify the reduction in VMT. The TDM plan shall require the following measures: • Prior to project occupancy, the project applicant shall make a financial contribution to the City's on-site demand rideshare service (MoGo), as a one-time or annual financial contribution based on City's approval. • The project shall improve the surrounding pedestrian network by including sidewalks, which terminate at the common property line, allowing for connections to the adjacent property in the event there is future development.

1.3 Summary of Alternatives

CEQA requires that an EIR identify alternatives to a project as it is proposed. CEQA Guidelines Section 15126.6 specifies that the EIR should identify alternatives which "would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project." Below is a summary of the project alternatives analyzed in this EIR. A full analysis of the project alternatives is provided in Section 8.0 Alternatives.

Alternatives Considered but Rejected

The following alternative was considered but rejected and described in detail in Section 8.5, Alternatives Considered but Rejected:

- Location Alternative

Analyzed Alternatives

The following were evaluated as alternatives to the project and described in detail in Section 8.0, Alternatives:

- No Project Alternative
- No Project – Development Under Existing General Plan/Zoning Development Alternative
- Reduced Project – Agricultural Preservation Alternative
- No Riparian Encroachment Alternative

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. The environmentally superior alternative to the proposed project is the Reduced Footprint – Agricultural Preservation Alternative, as detailed further in Section 8.6, Project Alternatives.

Section 2.0 Introduction

2.1 Purpose of the Environmental Impact Report

The City of Morgan Hill (City), as the Lead Agency, has prepared this Draft Environmental Impact Report (EIR) for the Morgan Hill Devco Residential Project[2] in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

As described in CEQA Guidelines Section 15121(a), an EIR is an informational document that assesses potential environmental impacts of a proposed project, as well as identifies mitigation measures and alternatives to the proposed project that could reduce or avoid adverse environmental impacts (CEQA Guidelines 15121(a)). As the CEQA Lead Agency for this project, the City is required to consider the information in the EIR along with any other available information in deciding whether to approve the project. The basic requirements for an EIR include discussions of the environmental setting, significant environmental impacts including growth-inducing impacts, cumulative impacts, mitigation measures, and alternatives. It is not the intent of an EIR to recommend either approval or denial of a project.

2.2 EIR Process

2.2.1 Notice of Preparation and Scoping

In accordance with Section 15082 of the CEQA Guidelines, the City prepared a Notice of Preparation (NOP) for this EIR. The NOP was circulated to local, state, and federal agencies on June 25, 2021. The standard 30-day comment period concluded on July 25, 2021. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from implementation of the project. The City also held a public scoping meeting on July 13, 2021 to discuss the project and solicit public input as to the scope and contents of this EIR. Appendix A of this EIR includes a copy of the NOP and comments received on the NOP.

2.2.2 Draft EIR Public Review and Comment Period

Publication of this Draft EIR will mark the beginning of a 60-day public review period. During this period, the Draft EIR will be available to the public and local, state, and federal agencies for review and comment. Notice of the availability and completion of this Draft EIR will be sent directly to every agency, person, and organization that commented on the NOP, as well as the Office of Planning and Research (OPR). Written comments concerning the environmental review contained in this Draft EIR during the 60-day public review period should be sent to:

[2] The Morgan Hill Devco Residential Project was previously referred to as the New Horizons Residential Project, and prior to that was referred to as the Villages at Jackson Square Project. Some technical reports prepared for the project may use the previous name.

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2.3 Final EIR/Responses to Comments

Following the conclusion of the 60-day public review period, the City will prepare a Final EIR in conformance with CEQA Guidelines Section 15132. The Final EIR will consist of:

- Revisions to the Draft EIR text, as necessary;
- List of individuals and agencies commenting on the Draft EIR;
- Responses to comments received on the Draft EIR, in accordance with CEQA Guidelines (Section 15088);
- Copies of letters received on the Draft EIR.

Section 15091(a) of the CEQA Guidelines stipulates that no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings. If the lead agency approves a project despite it resulting in significant adverse environmental impacts that cannot be mitigated to a less than significant level, the agency must state the reasons for its action in writing. This Statement of Overriding Considerations must be included in the record of project approval.

2.3.1 Notice of Determination

If the project is approved, the City will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office and available for public inspection for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15094(g)).

Section 3.0 Project Information and Description

3.1 Project Location and Existing Setting

The approximately 69.4-acre project site is located at the northeast quadrant of Barrett Avenue and Hill Road in the City of Morgan Hill (Assessor's Parcel Number [APN] 817-20-031). The project site is largely undeveloped, and the ground is predominantly fallowed. There are four vacant structures, formerly used for agricultural purposes, totaling approximately 25,000 square feet on the southeastern portion of the site, surrounded by trees. PG&E has easements for two existing gas lines on the eastern portion of the project site. There is an existing retention basin on the southwestern portion of the site. Tennant Creek bisects the project site from the northwest boundary to southwest boundary.

The project site is bounded by Barrett Avenue, agricultural land, and rural residences to the south; Hill Road, warehouse/storage structures, industrial structures, and rural residences to the west; and single-family residences to the north and east. Sorrel Way is located northeast of the site. Jackson Park and Jackson Elementary School are located northernly adjacent to the project site. Regional and vicinity maps of the project site are shown on Figure 3.2-1 and Figure 3.2-2, respectively. Figure 3.2-3 shows an aerial photograph of the project site and surrounding area.

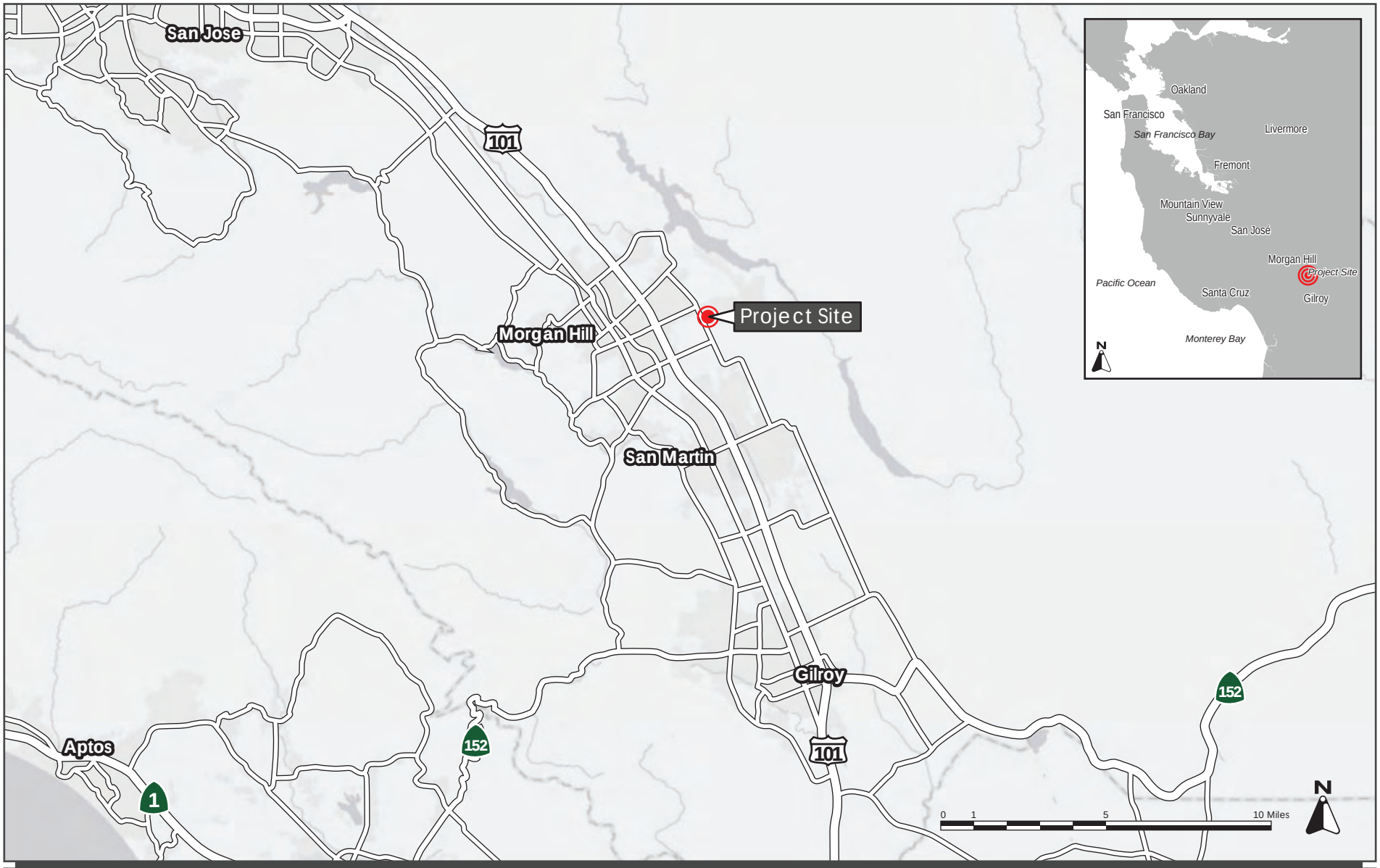
3.2 Project Description

The proposed project would remove the existing structures and develop the project site with a total of 320 residential units. The project proposes to subdivide the project site into 320 lots. The new lots would facilitate the development of 223 one- to two-story single-family detached houses, 42 court-style houses, 21 senior (i.e., age-restricted) cottages, 34 senior duet units. Out of the 223 single family homes, 23 of them include an accessory dwelling unit (ADU), and all 21 senior cottage units include an ADU. The maximum height of the residences would be 26 feet above the ground surface and would vary between one to two stories. Single-family detached houses would be located throughout the entire site. The age-restricted cottages and duets would be centrally located on the site.

The project would include approximately six acres of private open space and four acres of public open space. The project also proposes off-site improvements to Jackson Park, Jackson Elementary School, Hill Road, and Barrett Avenue (the project's open space and off-site improvements are described in more detail in Section 3.2.2 and 3.2.8, respectively). The proposed site plan and tentative parcel map are shown on Figure 3.2-4 and Figure 3.2-5, respectively.

3.2.1 Site Access, Circulation, and Parking

The project is bisected by Tennant Creek. The portion of the site adjacent to Hill Road would be accessed via one 36-foot driveway on Hill Road and one driveway on Barrett Avenue. The rest of the



REGIONAL MAP

FIGURE 3.2-1

VICINITY MAP

FIGURE 3.2-2

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES | FIGURE 3.2-3

Site Information

Current Designation	Residential Medium Density (0-7 du/ac)
Proposed Designation	No change
Current Zoning	Residential Medium Density 7,000 (PD)
Proposed Zoning	No Change

Housing Types

Traditional single-family homes	223	
Courtyard homes	42	
Senior cottages	21	
Senior single-family attached	34	
	320	

Inclusionary Housing Ordinance Compliance Summary

Required 320 homes @ 15% = 48 homes

Provided Senior Duets (Ownership) (Moderate, 110% AMI) 33 DT

Courtyard Homes (Ownership) (Moderate, 110% AMI) 6 CH

The balance of the requirement, nine homes, will be satisfied by in-lieu fees.

Housing Opportunities Summary

Single Story Homes (60)	SS
Single Family Homes with Junior ADU (23)	JADU
Accessory Dwelling Unit (attached)	ADU

Legend and Notes

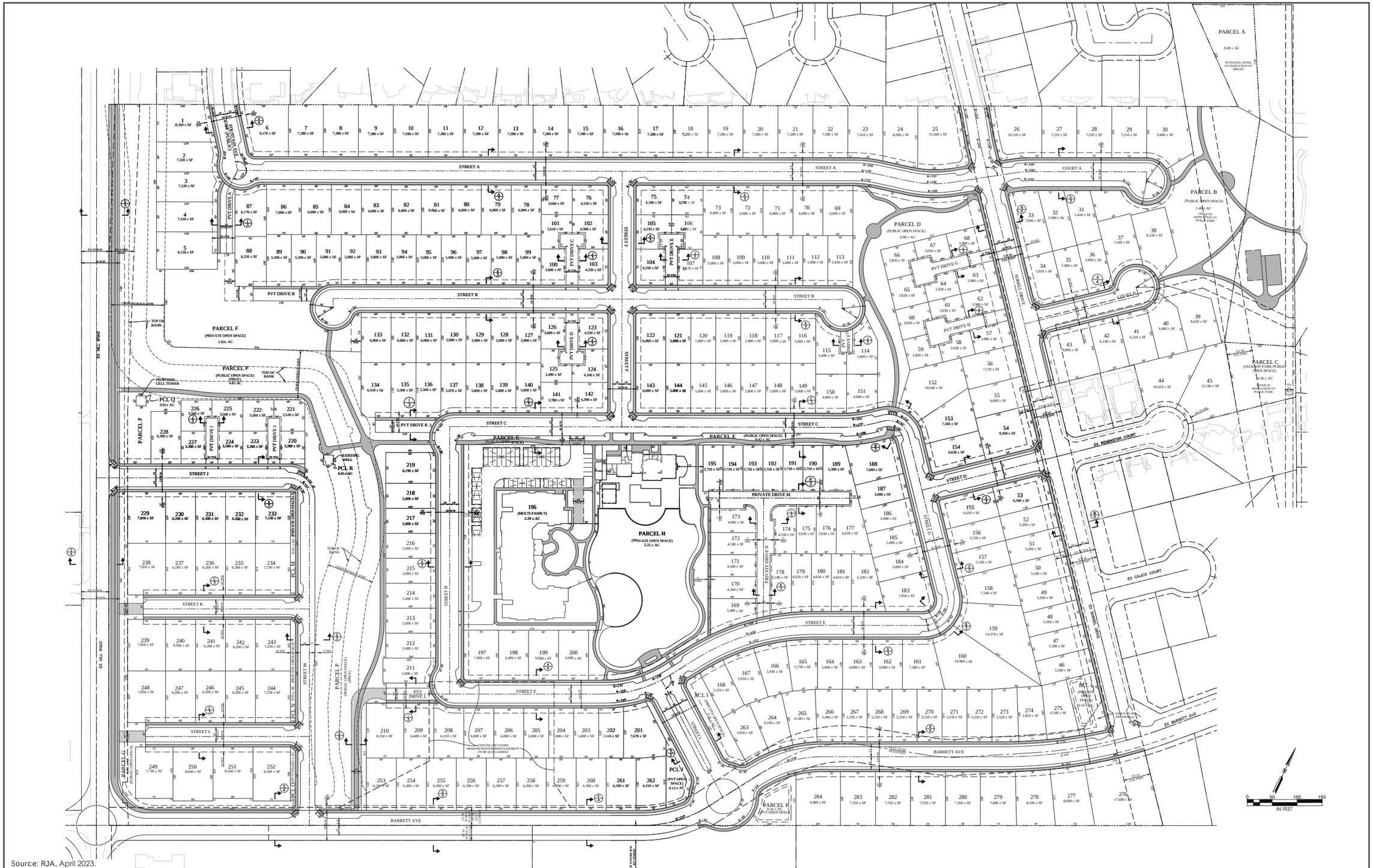
- Tree to remain
- Tree to be removed
- Public trail alignment

N

0 100 200 300

FEET

SITE PLAN | FIGURE 3.2-4



Source: RJA, April 2023.

TENTATIVE PARCEL MAP | FIGURE 3.2-5

project site would be accessed from Barrett Avenue, which would be realigned as part of the proposed project improvements (discussed further in Section 3.2.8 Off-site Improvements). The project would create roadway connections to Fountain Avenue and Sorrel Way, linking the proposed residences to the adjacent residential neighborhood to the north.

The project would add four internal private streets, courts, and alleys to provide circulation and connectivity within the proposed neighborhood. The project would include a total of 1,190 off street parking spaces, consisting of 632 covered spaces, 538 uncovered apron spaces[3], 12 uncovered parking bays, and eight car ports. Street parking would also be available.

3.2.2 Open Space and Recreation

The project would provide approximately six acres of private open space, consisting of passive park and recreation areas. The private open space would include a centrally located community clubhouse, pond, pedestrian trail, and a pool. The open space area would also include an amphitheater (to be used as a passive seating area with no performances involving amplified music), playground, dog parks, and senior living amenities. In addition, the project would contain private open lawn areas.

The project also proposes to dedicate 2.19 acres of land to public park/open space to expand Jackson Park and there will be a public easement over the 1.71 acres of improvements to the Jackson Trail. All proposed open spaces are shown on Figure 3.2-6.

3.2.3 Landscaping and Trees

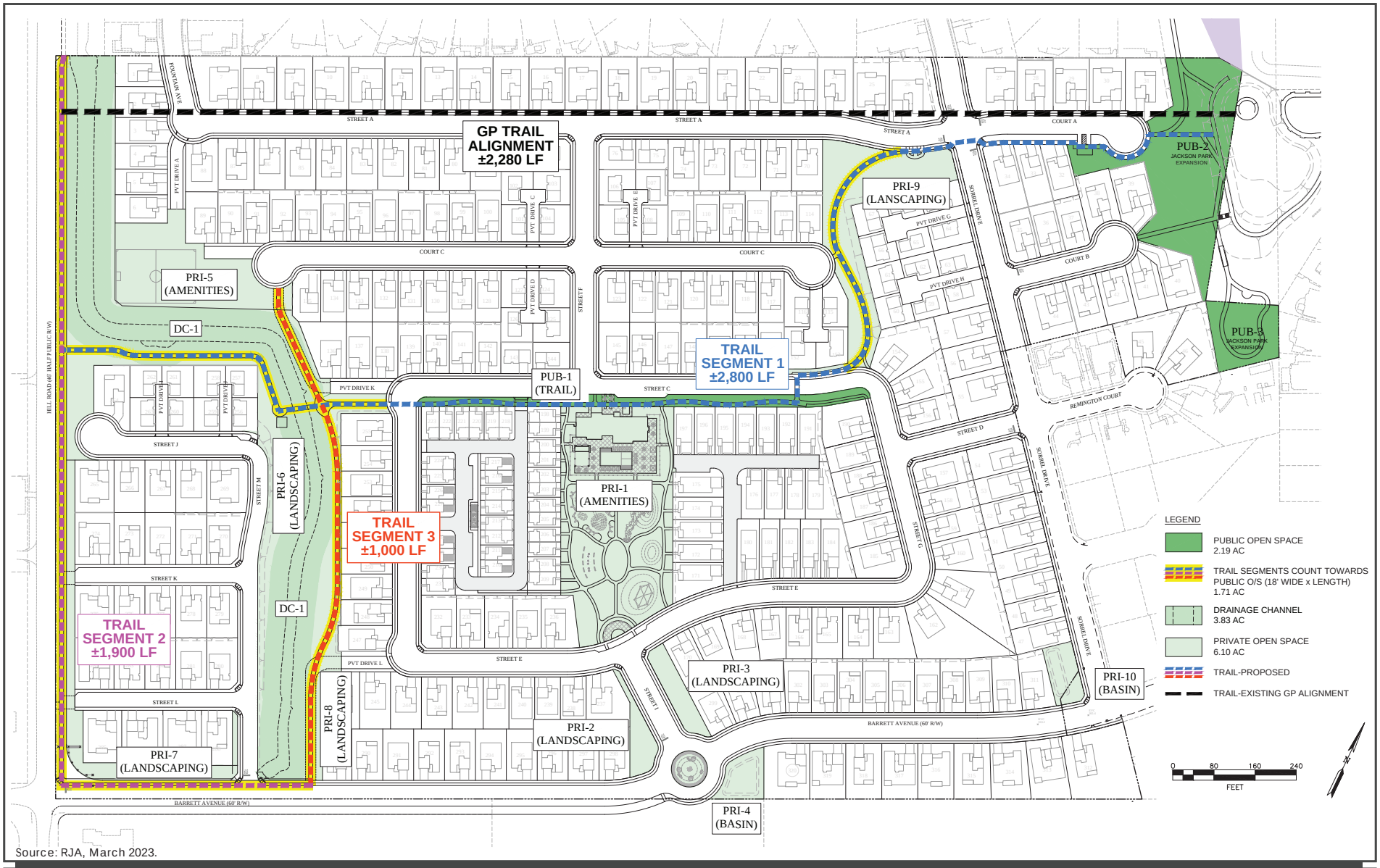
Of the 47 trees currently on the project site, 32 would be removed and 15 would remain on-site. A variety of trees and shrubs would be planted throughout the parking lots, around building perimeters, and along sidewalks.

The project proposes to realign a small portion of Tennant Creek, where it bisects Barrett Avenue, to straighten the water course flowing southward. The Barrett Avenue culvert would be improved concurrently with the improvements proposed to the surface of Barrett Avenue as it is widened.

3.2.4 Utilities

The project would construct new storm drain, sanitary sewer, and water lines that would connect to the City's existing systems in Barrett Avenue and Hill Road. The existing retention basin would be relocated from its location to the north. The existing storm drain lines that connect to the existing retention basin would be removed. New water lines would connect to the existing water mains in Barrett Avenue and Hill Road, sanitary sewer lines would connect to new sewer lines in Barrett Avenue, and storm drains would connect to a new storm drain in Barrett Avenue.

[3] Apron parking refers to parking in the space between a residence's driveway and street.



Source: RJA, March 2023.

OPEN SPACE EXHIBIT

FIGURE 3.2-6

Electric utilities would be provided by the Pacific Gas and Electric Company (PG&E). PG&E has easements for two existing gas lines on the eastern portion of the project site. The two gas lines would remain on the project site.

The maximum depth of excavation for utilities would be 12 feet, and the maximum depth of excavation for the proposed pond would be 10 feet. The 0.5-acre pond would be concrete-lined, with a maximum depth of eight feet and a five-foot wide, 18-inch deep ledge. The proposed pond would include fountains that recirculate water using electric-powered pumps. The existing on-site well would provide the primary source of water. To provide a back-up non-potable water supply, the project applicant proposes to connect to the federal pipeline located within the Hill Road right-of-way. The estimated net amount of cut and fill to be exported is 25,617 cubic yards.

The project also includes 3.83 acres of drainage channel improvements along the west side of the project site.

3.2.5 Storm Drainage

The proposed project would include two on-site bioretention basins located on the western side of the site. Additionally, the project would include three subsurface stormwater treatment areas. One treatment area would be centrally located near the proposed pond, the second would be located south of the proposed houses on the east, and the third would be located south of the proposed houses on the southeast.

3.2.6 Construction and Phasing

The proposed project would be constructed in three stages. Stage one includes in-tract and off-site public improvements, stage two includes recreational amenities, and stage three includes residential development. Full demolition and construction of the project would take approximately 60 months.

3.2.7 General Plan and Zoning

The project site is in the Residential Detached Medium density (RDM) zoning district and has a General Plan land use designation of Residential Detached Medium (which allows for up to seven dwelling units per acre). A zoning amendment is proposed to add the Planned Development Combining District, which would allow for a variety of unit types ranging from single-family detached units to multi-family attached units.

3.2.8 Off-Site Improvements

The project proposes off-site improvements to Jackson Park, Jackson trail, and Barrett Avenue. As discussed previously, the existing on-site detention basin would be relocated to the north and is proposed as an improvement to Jackson Park. The detention basin would connect to a storm drain culvert that would divert 100-year flows to the basin.

The project proposes approximately 2.19 acres of public open space dedication. Other off-site improvements include improvements to Hill Road, Barrett Avenue, and Sorrel Way. The Hill Road and Barrett Avenue improvements would include curb and gutter with landscape strip, sidewalk, and streetlights. Barrett Avenue would be improved to meet public street standards and include a roundabout. Sorrel Way would be connected through the project near Jackson Park, and improvements would be made to the intersection at Sorrel Way and Barrett Avenue.

3.3 Project Objectives

Pursuant to CEQA Guidelines Section 15124, the EIR must include a statement of the objectives sought by the proposed project. The overall goal of the project applicant is to construct a residential housing development, following the requirements of the Morgan Hill 2035 General Plan.

Project objectives as proposed by the applicant include:

- Provide market rate housing with multiple housing types and a variety of lot sizes. These include small-lot single-family and senior housing.
- Concentrate the highest density residential units in the center of the site and decrease densities towards the site's perimeter.
- Provide age-restricted housing with caregiver-in-residence (accessory dwelling unit [ADU]) opportunities in single-family detached units.
- Create a visually appealing pedestrian corridor along Barrett Avenue and Hill Road.
- Implement improvements to provide public and private vehicular and pedestrian circulation, including the trail connection from Jackson Park to Hill Road.
- Provide traffic calming measures on Barrett Avenue that include a "local" street section, a turning circle, and a re-aligned roadway on the project site.
- Provide infrastructure to improve the current drainage/flooding issues near the Hill/Barrett intersection and within Jackson Park.
- Increase passive and active open space throughout the project site.
- Expand Jackson Park to include additional amenities and pedestrian access from the proposed project.

3.4 Uses of the EIR

The EIR would provide decision-makers in the City of Morgan Hill (the CEQA Lead Agency), responsible agencies, and the general public with relevant environmental information to use in consideration of the project.

The following responsible agencies could potentially have discretionary approval over the project:

- California Department of Fish and Wildlife (CDFW)
- Regional Water Quality Control Board (RWQCB)
- County of Santa Clara
- Santa Clara Valley Water District (Valley Water)
- United States Army Corps of Engineers
- California Department of Transportation (CalTrans)

If the project is approved, the EIR could be used by the City in conjunction with appropriate discretionary approvals, including the following:

- Zoning Amendment
- Subdivision Map
- Design Permit
- Tree Removal Permit(s)
- Issuance of Demolition, Grading, Building, and Occupancy Permits

Section 4.0 Environmental Setting, Impacts, and Mitigation

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

4.1	Aesthetics	4.11	Land Use and Planning
4.2	Agriculture and Forestry Resources	4.12	Mineral Resources
4.3	Air Quality	4.13	Noise
4.4	Biological Resources	4.14	Population and Housing
4.5	Cultural Resources	4.15	Public Services
4.6	Energy	4.16	Recreation
4.7	Geology and Soils	4.17	Transportation
4.8	Greenhouse Gas Emissions	4.18	Tribal Cultural Resources
4.9	Hazards and Hazardous Materials	4.19	Utilities and Service Systems
4.10	Hydrology and Water Quality	4.20	Wildfire

The discussion for each environmental subject includes the following subsections:

Environmental Setting – This subsection 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant.

Impact Discussion – This subsection includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts.

- **Project Impacts** – This subsection discusses the project's impact on the environmental subject as related to the checklist questions. For significant impacts, feasible mitigation measures are identified. "Mitigation measures" are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered to correspond to the checklist question being answered. For example, Impact BIO-1 answers the first checklist question in the Biological Resources section. Mitigation measures are also numbered to correspond to the impact they address. For example, MM BIO-1.3 refers to the third mitigation measure for the first impact in the Biological Resources section.
- **Cumulative Impacts** – This subsection discusses the project's cumulative impact on the environmental subject. Cumulative impacts, as defined by CEQA, refer to two or more individual effects, which when combined, compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant effects taking place over a period of time. CEQA Guideline Section 15130 states that an EIR should discuss cumulative impacts "when the project's incremental effect is cumulatively

considerable." The discussion does not need to be in as great detail as is necessary for project impacts, but is to be "guided by the standards of practicality and reasonableness." The purpose of the cumulative analysis is to allow decision makers to better understand the impacts that might result from approval of past, present, and reasonably foreseeable future projects, in conjunction with the proposed project addressed in this EIR.

The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence (CEQA Guidelines Section 15130(b)). To accomplish these two objectives, the analysis should include either a list of past, present, and probable future projects or a summary of projections from an adopted general plan or similar document (CEQA Guidelines Section 15130(b)(1)). This EIR uses a hybrid approach based in what would be most relevant for the topic.

The analysis must determine whether the project's contribution to any cumulatively significant impact is cumulatively considerable, as defined by CEQA Guideline Section 15065(a)(3). The cumulative impacts discussion for each environmental issue accordingly addresses the following issues: 1) would the effects of all of past, present, and probable future (pending) development result in a significant cumulative impact on the resource in question; and, if that cumulative impact is likely to be significant, 2) would the contribution from the proposed project to that significant cumulative impact be cumulatively considerable?

Table 4-1 identifies the approved (but not yet constructed or occupied) and pending projects in the project vicinity that are evaluated in the cumulative analysis.

Table 4-1: Cumulative Projects List

Project Name (Location)	Description	Distance to Proposed Project	Estimated Schedule	
			Start	Finish
Lillian Commons (Juan Hernandez Drive and Barrett Avenue)	Proposes construction of a hospital, urgent care facility, and 200-unit multi-family residential development and a General Plan Amendment.	1.2 miles west of the site	2025	2030
Crosswinds (Half Road and Mission View)	Proposes Construction of 269 single-family residential units	2 miles northwest of the site	2023	2027
Cochrane Commons	Proposes 498 residential units, consisting of a mix of homes, townhomes, condos, and apartments; 135,000 square feet of retail space; a 140-room hotel	2.5 miles northwest of project site	2024	2029

Source: City of Morgan Hill. Planning Permits Map. Accessed March 9, 2022. https://www.google.com/maps/d/viewer?mid=17QrFYOTSUIOl_hnz0tgUmfWDcbLeJek_&ouid=0&ll=37.135827498321156%2C-121.65120334051845&z=13

For each resource area, cumulative impacts may occur over different geographic areas. For example, the project effects on air quality would combine with the effects of projects in the entire air basin, whereas noise impacts would primarily be localized to the surrounding area. The geographic area that could be affected by the proposed project varies depending upon the type of environmental issue being considered. Section 15130(b)(3) of the CEQA Guidelines states that lead agencies should define the geographic scope of the area affected by the cumulative effect. Table 4-2 below provides a summary of the different geographic areas used to evaluate cumulative impacts.

Table 4-2: Geographic Considerations in Cumulative Analysis

Resource Area	Geographic Area
Aesthetics	Project site and adjacent parcels
Agriculture and Forestry Resources	Citywide
Air Quality	San Francisco Bay Area Air Basin
Biological Resources	Project site and adjacent parcels
Cultural Resources	Project site and adjacent parcels
Energy	Energy provider's territory
Geology and Soils	Project site and adjacent parcels
GHGs	Planet-wide
Hazards and Hazardous Materials	Project site and adjacent parcels
Hydrology and Water Quality	Pajaro River-Monterey Bay watershed
Land Use and Planning/Population and Housing	Citywide
Minerals	Identified mineral recovery or resource area
Noise and Vibration	Project site and adjacent parcels
Public Services and Recreation	Citywide
Transportation/Traffic	Citywide
Tribal Cultural Resources	Project site and adjacent parcels
Utilities and Service Systems	Citywide
Wildfire	Within or adjacent to the wildfire hazard zone

4.1 Aesthetics

4.1.1 Environmental Setting

4.1.1.1 *Regulatory Framework*

State

Streets and Highway Code Sections 260 through 263

The California Scenic Highway Program (Streets and Highway Code, Sections 260 through 263) is managed by the California Department of Transportation (Caltrans). The program is intended to protect and enhance the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. There are no state-designated scenic highways in Morgan Hill. Interstate 280 from the San Mateo County line to State Route (SR) 17, which includes segments in Morgan Hill, is an eligible, but not officially designated, State Scenic Highway.[4]

In Santa Clara County, the one state-designated scenic highway is SR 9 from the Santa Cruz County line to the Los Gatos City Limit. Eligible State Scenic Highways (not officially designated) include: SR 17 from the Santa Cruz County line to SR 9, SR 35 from Santa Cruz County line to SR 9, Interstate 280 from the San Mateo County line to SR 17, and the entire length of SR 152 within the County.

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts due to aesthetic and visual impacts. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Aesthetics

Policy	Description
CNF-8.1	**High Quality Design.** Require all development to feature high quality design that enhances the visual character of Morgan Hill.
CNF-8.2	**Design Features.** Encourage design features and amenities in new development and redevelopment, including but not limited to: • Highly connected street layouts, supporting multiple paths of travel for all modes. • Cluster buildings to create useable open space. • Abundant landscaping. • Attractive transitions between uses. • Comfortable pedestrian facilities that promote a high level of pedestrian activity. • Distinctiveness and variety in architectural design.

[4] California Department of Transportation. "Scenic Highways." Accessed December 10, 2020. https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways.

Policy	Description
CNF-8.3	**Changes in Building Scale.** Discourage abrupt changes in building scale. A gradual transition between low-rise to mid-rise buildings should be achieved by using the low-rise buildings at the edge of the project site. Consider the relationship of buildings to the street, to one another and to adjacent structures and land uses.
CNF-8.7	**Design Sensitivity.** Ensure that new development is sensitive to the character of adjacent structures and the immediate neighborhood.
NRE-2.1	**Hillside and Ridgeline Views.** Protect views of hillsides, ridgelines, and prominent natural features surrounding the City. These features help define the City's historical rural character, sense of place, image, and identity.

City of Morgan Hill Zoning Code

Title 18 of the City's Municipal Code contains the City's Zoning Code. According to Chapter 18.16, the maximum allowable height for RDM districts is 30 feet.[5]

4.1.1.2 *Existing Conditions*

Project Site

The 69.4-acre project site is located at the northeast quadrant of Barrett Avenue and Hill Road in the City of Morgan Hill. The project site is largely undeveloped, and the ground is predominantly fallowed. The project site is sloped, with an overall elevation change of 25 feet. The project site has a high elevation of approximately 385 feet on the eastern portion of the site. East of the slope, the project site has a lower elevation of approximately 370 feet. West of the slope and throughout the remainder of the project site, the site has an elevation of approximately 360 feet. There are four wood-framed vacant structures, formerly used for agricultural purposes, on the southeastern portion of the site, surrounded by eucalyptus and oak trees. Due to the undeveloped nature of the site, these structures are visible from Hill Road and Barrett Avenue. Views of the project site are shown in Photos 1 through 4.

Surrounding Visual Character

The site is surrounded by developed and undeveloped parcels of land. The parcels to the south of the site are primarily agricultural land. The parcels directly adjacent to the project site, to the north and southeast, are single-family residential neighborhoods. Most of these residential structures are modern one- to two-story residences with hipped roofs. Northeast of the site is Jackson Park, which contains a small playground and short paved walking trail. To the southeast of the site, parcels are primarily agricultural land, with single-family rural residences and accompanying storage structures. Views of the surrounding area are shown in Photos 5 through 8.

[5] City of Morgan Hill. "Title 18: Zoning Code. Table 17.16.030 - Development Standards." https://library.municode.com/ca/morgan_hill/codes/code_of_ordinances?nodeId=TIT18ZO_DIVIZOCO_CH18.16REDEZODI_18.16.030DEST

Photo 1: View of the project site from surrounding residences, facing south.

Photo 2: View of the project site facing west towards Hill Road.

PHOTOS 1 & 2

Photo 3: View of the project site and existing retention basin, facing north.

Photo 4: View of the existing structures on the project site from Hill Road, facing east.

PHOTOS 3 & 4

Photo 5: View of existing development across Hill Road, facing west.

Photo 6: View of existing residences from Fountain Oaks Drive, facing north.

PHOTOS 5 & 6

Photo 7: View of existing residences along Sorrel Drive, facing northeast.

Photo 8: View of Jackson Park, facing southwest.

PHOTOS 7 & 8

Scenic Vistas and Resources

Due to the site's topography and surrounding development, views of the project site are limited to the immediate vicinity. From the project site, there are views of hillsides to the northeast. However, the site is not located within a designated scenic view corridor or visible from a designated scenic highway. The nearest state-designated highway is State Route (SR) 9, approximately 19 miles west of the site (at the SR 17 interchange).[6]

4.1.2 Impact Discussion

For the purpose of determining the significance of the project's impact on aesthetics, except as provided in Public Resources Code Section 21099, would the project:

1) Have a substantial adverse effect on a scenic vista?
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
3) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings?[7] If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

4.1.2.1 *Project Impacts*

a) Would the project have a substantial adverse effect on a scenic vista?

There are no scenic corridors, highways, or vistas in Morgan Hill that are designated by the state or the City. However, there are vistas within Morgan Hill that could be considered scenic. The City of Morgan Hill General Plan EIR identified El Toro Peak as one of the most prominent visual landmarks in the City. El Toro Peak is located to the west and is visible from U.S. Highway 101. Broader views of the Diablo Range to the east and the Santa Cruz Mountains to the west are visible from U.S. Highway 101 and from many points within the City.

As noted in Section 4.1.1.2 Existing Conditions, views of hillsides are visible to the east from the project site. These hillsides are also visible from residences west of the project site across Hill Road, and from residences adjacent to the northern portion of the site. These views would be partially obstructed by the new residential development. However, hills would be intermittently visible between buildings. Additionally, private views are not protected under CEQA, which focuses on

[6] Caltrans. *California State Scenic Highway System Map.* Accessed January 13, 2022. https://www.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983.
[7] Public views are those that are experienced from publicly accessible vantage points.

scenic vistas as seen from public vantage points. Thus, the proposed project would not have a substantial adverse effect on a scenic vista. **(Less than Significant Impact)**

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The 69.4-acre project site is not located within or adjacent to a state-designated scenic highway. The nearest scenic highway is SR 9, approximately 19 miles west of the site. Therefore, the project would not damage scenic resources within a state scenic highway. **(No Impact)**

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The proposed residential units would vary in architectural style and color scheme. The architectural materials include stucco, cement, veneer, vinyl windows, and wrought iron details. Roofs would be gable-style, made of brown or red concrete tiles. Color schemes would vary but would remain generally neutral (e.g., different shades of brown or cream-white with brown or green accents). The maximum height of the residences would be 26 feet above the ground surface. The proposed project would be subject to review and approval by the City of Morgan Hill Design Permit process to ensure the development meets local design and aesthetic standards. As discussed in Section 4.1.1.1 Regulatory Framework, the RDM designation allows for a maximum height of 30 feet. The proposed project would comply with the zoning requirements. For these reasons, the proposed project would not substantially degrade the existing visual character or quality of the project area, which is not considered a sensitive visual environment due to the varied nature of the developed land uses. **(Less than Significant Impact)**

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The proposed project would incrementally increase light and glare in the project area, due to new reflective surfaces and outdoor lighting on the site, and vehicles traveling on, to, and from the site. These new sources of light and glare from the project would be similar in character to light and glare from the nearby existing residential development. Building design, glazing materials, and outdoor lighting would be subject to review by the City of Morgan Hill Design Permit process for conformance with City standards. For these reasons, development on the site under the proposed project would not result in a new source of substantial light or glare that would affect day or nighttime views in the area. **(Less than Significant Impact)**

4.1.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a significant cumulative aesthetics impact?

The geographic area for cumulative aesthetic impacts is the project site and adjacent parcels. The proposed project is surrounded by agricultural land and rural residences to the south and west, and residential development to the north and east. Views of the proposed residences from the adjacent buildings are limited to the immediate area. There are no other development projects planned within the immediate vicinity of the proposed project

As discussed under Section 4.1.2.1 Project Impacts above, the proposed project would have no impact on scenic resources within a state scenic highway; therefore, the project would not contribute to a cumulative impact. While development of the proposed project could partially obstruct existing residents' views of the mountains, the project would have a less than significant impact under CEQA, which focuses on scenic vistas rather than private views. The incremental increase in light and glare from the proposed project would have a less than significant impact to adjacent developments because the project design would be consistent with the City's design and lighting standards. Additionally, because there are no other development projects planned within the vicinity of the proposed project, the proposed project would not combine with other projects to alter visual or aesthetic conditions on a cumulative level. For these reasons, the proposed project would have a less than significant cumulative impact. **(Less than Significant Cumulative Impact)**

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

4.2.1.1 *Regulatory Framework*

State

Farmland Mapping and Monitoring Program

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status. The best quality land is called Prime Farmland. In CEQA analyses, the FMMP classifications and published county maps are used, in part, to identify whether agricultural resources that could be affected are present on-site or in the project area.[8]

California Land Conservation Act

The California Land Conservation Act (Williamson Act) enables local governments to enter into contracts with private landowners to restrict parcels of land to agricultural or related open space uses. In return, landowners receive lower property tax assessments. In CEQA analyses, identification of properties that are under a Williamson Act contract is used to also identify sites that may contain agricultural resources or are zoned for agricultural uses.[9]

Fire and Resource Assessment Program

The California Department of Forestry and Fire Protection (CalFire) identifies forest land, timberland, and lands zoned for timberland production that can (or do) support forestry resources.[10] Programs such as CalFire's Fire and Resource Assessment Program and are used to identify whether forest land, timberland, or timberland production areas that could be affected are located on or adjacent to a project site.[11]

[8] California Department of Conservation. "Farmland Mapping and Monitoring Program." Accessed March 1, 2022. http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx.
[9] California Department of Conservation. "Williamson Act." http://www.conservation.ca.gov/dlrp/lca.
[10] Forest Land is land that can support 10 percent native tree cover and allows for management of forest resources (California Public Resources Code Section 12220(g)); Timberland is land not owned by the federal government or designated as experimental forest land that is available for, and capable of, growing trees to produce lumber and other products, including Christmas trees (California Public Resources Code Section 4526); and Timberland Production is land used for growing and harvesting timber and compatible uses (Government Code Section 51104(g)).
[11] California Department of Forestry and Fire Protection. "Fire and Resource Assessment Program." Accessed March 1, 2022. http://frap.fire.ca.gov/.

Local

Morgan Hill Agricultural Lands Preservation Program and Agricultural Mitigation Ordinance

The City of Morgan Hill has adopted an Agricultural Lands Preservation Program (Preservation Program) to encourage the preservation and enhancement of open space/agriculture outside of the City boundaries, for areas within the City's Urban Growth Boundary (UGB) Sphere of Influence (SOI), while identifying certain properties within the boundaries for mitigation and compatible development with sports, recreation, and leisure uses. The ordinance establishes CEQA mitigation procedures to mitigate the loss of agricultural lands primarily located within the City of Morgan Hill boundaries. Mitigation for the loss of farmland with a designated "soil quality" on the State Farmland Maps and provides for payment of an agricultural mitigation fee, acquisition of other agricultural land, or dedication of a permanent agricultural conservation easement on agricultural land and payment of a fee to cover ongoing stewardship and monitoring activities. Mitigation is required at a ratio of 1:1 (meaning one acre of perpetual farmland preservation for each acre of farmland development/conversion). Should a mitigation fee be paid, the City will combine those fees with open space fees to acquire easements near the City boundary.

4.2.1.2 *Existing Conditions*

The 69.4-acre project site is comprised of one parcel that is largely undeveloped with the exception of four vacant structures located on the southeastern portion of the site. The site consists of predominantly fallowed land. The site has been historically used for agricultural activities; however, the site is currently not used for agricultural purposes and is not the subject of a Williamson Act contract.[12] No forestry resources are present on or near the site.

According to the Santa Clara County Important Farmland 2018 Map, the project site consists of approximately 44 acres of Prime Farmland, approximately five acres of Farmland of Statewide Importance, and approximately 20 acres of Other Land, as shown on Figure 4.2-1 below.[13]

Prime Farmland is defined as having the best combination of physical and chemical features able to sustain long-term agricultural production. Farmland of Statewide Importance is defined as having a good combination of physical and chemical characteristics for the production of agricultural crops. Other Land is defined as land that is not included in any other mapping category (e.g., low density rural developments, brushland, and riparian areas not suitable for livestock grazing).

[12] City of Morgan Hill. *Morgan Hill 2035 General Plan Draft Environmental Impact Report.* Figure 4.2-2: Williamson Act Contracts. Page 4.2-4.
[13] California Department of Conservation. California Important Farmland Finder. Accessed March 1, 2022. Available at https://maps.conservation.ca.gov/DLRP/CIFF/

Source: California Department of Conservation, 2016.

AGRICULTURAL LAND ON PROJECT SITE | FIGURE 4.2-1

4.2.2 Impact Discussion

For the purpose of determining the significance of the project's impact on agriculture and forestry resources, would the project:

1) Convert Prime Farmland , Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
3) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?
4) Result in a loss of forest land or conversion of forest land to non-forest use?
5) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Note: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board (CARB).

4.2.2.1 *Project Impacts*

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

As stated in Section 4.2.1.1 Regulatory Framework, the City of Morgan Hill adopted its Preservation Program in November 2014 to preserve potential agricultural land subject to development. As discussed in Section 4.2.1.2 Existing Conditions, the project site contains land designated as Prime Farmland and Farmland of Statewide Importance. The project proposes to develop the site with residential uses.

Impact AG-1: Conversion of approximately 44 acres of Prime Farmland and approximately five acres of Farmland of Statewide Importance would constitute a significant impact to agricultural resources.

Mitigation Measures: The project would be required to comply with the Preservation Program's mitigation measures as detailed in the Agricultural Mitigation Ordinance (Chapter 18.152 of the Municipal Code). The applicant shall implement the following measures:

MM AG-1.1: A minimum of one acre of agricultural land (1:1 mitigation ratio) shall be preserved for each acre of agricultural land changed to a non-agricultural use. The required acreage of area to be protected through an agricultural conservation easement or agricultural preservation in-lieu fee will depend on the measurement of affected area. The area of land designated as Prime Farmland and Farmland of Statewide Importance shall be used for calculating the required mitigation.

MM AG-1.2: Conversion of agricultural land shall require off-setting acquisition and/or dedication of agricultural conservation easements over approved agricultural mitigation land, or payment to the City of the agricultural preservation in-lieu fee, to support agricultural preservation activities. Developer acquisition/dedication of easements shall require the project to pay an agricultural lands preservation program stewardship fee to cover administrative costs and ongoing management and monitoring of the easements, whichever occurs first. Agricultural mitigation fees shall be required prior to the acceptance of a final parcel or subdivision map or prior to issuance of building or grading permits, whichever occurs first. Easement dedication is required prior to issuance of building permits. Agricultural mitigation fees shall be required prior to the acceptance of a final parcel or subdivision map, or prior to issuance of building or grading permits. Easement dedication is required prior to issuance of building permits.

Implementation of the mitigation measures described above, pursuant to the City's Agricultural Preservation Program and Agricultural Mitigation Ordinance, would reduce the project's impacts associated with conversion of Prime Farmland, but not to a less than significant level. There are no other feasible mitigation measures which could be implemented to reduce the loss of agricultural lands to a less than significant level, as CEQA case law affirms the principle that the loss of prime farmland is irreversible, and protection of other existing farmland does not fully offset the lost farmland, but rather prevents further loss.

The project site is not designated for agricultural use in the City's General Plan and the site's conversion to urban land uses would be consistent with what was analyzed in the General Plan EIR in respect to agricultural impacts. The General Plan EIR concluded that the conversion of farmland to urban uses would remain significant and unavoidable despite the adoption and implementation of the Preservation Program, as there would nonetheless be a substantial loss of farmland. Therefore, the proposed project would result in a significant and unavoidable impact to agricultural

resources, consistent with the impact identified in the General Plan EIR. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

As described in Section 4.2.1.2 Existing Conditions, the site is not under Williamson Act contract. The project site is zoned for residential uses under the RDM zoning district. A zoning amendment is proposed to add the Planned Development Combining District, which would allow a variety of unit types ranging from single-family detached units to multi-family attached units. The project would not conflict with existing zoning for agricultural use or with a Williamson Act contract. Nearby land uses include agricultural land but would be buffered from the project by Barrett Avenue and Hill Road. **(No Impact)**

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production?

As discussed under Impact AG-2, the project site is zoned for residential uses under the RDM zoning district and proposes rezoning for the Planned Development Combining District. The project would not conflict with existing zoning for agricultural use or with a Williamson Act contract. **(No Impact)**

d) Would the project result in a loss of forest land or conversion of forest land to non-forest use?

The approximately 69.4-acre site does not contain any forest land. The project would not convert forest land to non-forest use. **(No Impact)**

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

As discussed under Impact AG-1, the project would convert Prime Farmland to non-agricultural use and would be required to incorporate mitigation measures pursuant to the City's Agricultural Preservation Program and Agricultural Mitigation Ordinance to offset impacts to Farmland, although those impacts would remain significant and unavoidable. Aside from the physical conversion of land discussed in Impact AG-1, the proposed project would not result in other changes in the existing environment which could result in the conversion of agricultural land or forest land. **(Less than Significant Impact)**

4.2.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant agricultural and forestry resources impact?

The geographic area for cumulative agricultural and forestry resource impacts is the City of Morgan Hill. As discussed under Impact AG-1, the project would incorporate mitigation measures per the City's Agricultural Mitigation Ordinance to reduce project-level impacts to Prime Farmland and Farmland of Statewide Importance, although impacts would remain significant and unavoidable. These mitigation measures would require the project to preserve farmland lost at a 1:1 ratio, either through land dedication or in-lieu fees paid to the City. Although these mitigation measures can be applied to the project and other farmland conversion in the City, the City' General Plan EIR determined that full buildout through 2035 would result in the conversion of approximately 1,125 acres of farmland to non-agricultural use.[14] This was recognized as a significant and unavoidable impact to agricultural resources. Therefore, the project would contribute to the significant and unavoidable cumulative impact to agricultural resources identified in the City's General Plan EIR. **(Significant and Unavoidable Cumulative Impact)**

[14] City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report.* May 2016. Page 3.4.

4.3 Air Quality

The following discussion is based, in part, on an Air Quality Analysis prepared for the project by Illingworth & Rodkin, Inc. (I&R) dated June 1, 2023. A copy of this report is included in Appendix B of this EIR.

4.3.1 Environmental Setting

4.3.1.1 *Background Information*

Criteria Pollutants

Air quality in the Bay Area is assessed related to six common air pollutants (referred to as criteria pollutants), including ground-level ozone (O_3), nitrogen oxides (NO_x), particulate matter (PM), carbon monoxide (CO), sulfur oxides (SO_x), and lead.[15] Criteria pollutants are regulated because they result in health effects. An overview of the sources of criteria pollutants and their associated health are summarized in Table 4.3-1. The most commonly regulated criteria pollutants in the Bay Area are discussed further below.

Table 4.3-1: Health Effects of Air Pollutants

Pollutants	Sources	Primary Effects
Ozone (O_3)	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	• Aggravation of respiratory and cardiovascular diseases • Irritation of eyes • Cardiopulmonary function impairment
Nitrogen Dioxide (NO_2)	Motor vehicle exhaust, high temperature stationary combustion, atmospheric reactions	• Aggravation of respiratory illness • Reduced visibility
Fine Particulate Matter ($PM_{2.5}$) and Coarse Particulate Matter (PM_{10})	Stationary combustion of solid fuels, construction activities, industrial processes, atmospheric chemical reactions	• Reduced lung function, especially in children • Aggravation of respiratory and cardiorespiratory diseases • Increased cough and chest discomfort • Reduced visibility
Toxic Air Contaminants (TACs)	Cars and trucks, especially diesel-fueled; industrial sources, such as chrome platers; dry cleaners and service stations; building materials and products	• Cancer • Chronic eye, lung, or skin irritation • Neurological and reproductive disorders

High O_3 levels are caused by the cumulative emissions of reactive organic gases (ROG) and NO_x. These precursor pollutants react under certain meteorological conditions to form high O_3 levels.

[15] The area has attained both state and federal ambient air quality standards for CO. The project does not include substantial new emissions of sulfur dioxide or lead. These criteria pollutants are not discussed further.

Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce O_3 levels. The highest O_3 levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources.

PM is a problematic air pollutant of the Bay Area. PM is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM_{10}) and fine particulate matter where particles have a diameter of 2.5 micrometers or less ($PM_{2.5}$). Elevated concentrations of PM_{10} and $PM_{2.5}$ are the result of both region-wide emissions and localized emissions.

Toxic Air Contaminants

TACs are a broad class of compounds known to have health effects. They include but are not limited to criteria pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, diesel fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway).

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs. Diesel exhaust is a complex mixture of gases, vapors, and fine particles. Medium- and heavy-duty diesel trucks represent the bulk of DPM emissions from California highways. The majority of DPM is small enough to be inhaled into the lungs. Most inhaled particles are subsequently exhaled, but some deposit on the lung surface or are deposited in the deepest regions of the lungs (most susceptible to injury).[16] Chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the CARB.

Sensitive Receptors

Some groups of people are more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools.

[16] California Air Resources Board. "Overview: Diesel Exhaust and Health." Accessed October 16, 2020. https://www.arb.ca.gov/research/diesel/diesel-health.htm.

4.3.1.2 *Regulatory Framework*

Federal and State

Clean Air Act

At the federal level, the United States Environmental Protection Agency (EPA) is responsible for overseeing implementation of the Clean Air Act and its subsequent amendments. The federal Clean Air Act requires the EPA to set national ambient air quality standards for the six common criteria pollutants (discussed previously), including PM, O_3, CO, SO_x, NO_x, and lead.

CARB is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act. The EPA and the CARB have adopted ambient air quality standards establishing permissible levels of these pollutants to protect public health and the climate. Violations of ambient air quality standards are based on air pollutant monitoring data and are determined for each air pollutant. Attainment status for a pollutant means that a given air district meets the standard set by the EPA and/or CARB.

Risk Reduction Plan

To address the issue of diesel emissions in the state, CARB developed the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles. In addition to requiring more stringent emission standards for new on-road and off-road mobile sources and stationary diesel-fueled engines to reduce particulate matter emissions by 90 percent, the plan involves application of emission control strategies to existing diesel vehicles and equipment to reduce DPM (in additional to other pollutants). Implementation of this plan, in conjunction with stringent federal and CARB-adopted emission limits for diesel fueled vehicles and equipment (including off-road equipment), will significantly reduce emissions of DPM and NO_X.

Regional

2017 Clean Air Plan

The Bay Area Air Quality Management District (BAAQMD) is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards will be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the 2017 CAP describes how BAAQMD will continue its progress toward attaining state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 CAP includes control measures designed to reduce emissions of methane and other super-greenhouse gases (GHGs) that are

potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.[17]

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. Jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing air quality impacts developed by BAAQMD within their CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts to air quality. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Air Quality

Policy	Description
NRE-10.2	**State and Federal Regulation.** Encourage effective regulation of mobile and stationary sources of air pollution and support state and federal regulations to improve automobile emissions controls.
NRE-10.3	**Automobile Emissions.** Encourage the use of and infrastructure for alternative fuel, hybrid, and electric vehicles. Encourage new and existing public and private development to include electric vehicle charging stations.
NRE-10.4	**Reduced Automobile Use.** To reduce air pollution the frequency and length of automobile trips and the amount of traffic congestion by controlling sprawl, promoting infill development, and encouraging mixed uses and higher density development near transit. Support the expansion and improvement of alternative modes of transportation. Encourage development project designs that protect and improve air quality and minimize direct and indirect air pollutant emissions by including components that reduce vehicle trips.
NRE-11.1	**TACs and Proposed Sensitive Uses.** Require modeling for sensitive land uses, such as residential development, proposed near sources of pollution such as freeways and industrial uses. Require new residential development and projects categorized as sensitive receptors to incorporate effective mitigation measures into project designs or be located adequate distances from sources of toxic air contaminants (TACs) to avoid significant risk to health and safety.
NRE-11.2	**TACs and Existing Sensitive Uses.** Encourage the installation of appropriate air filtration mechanisms at existing schools, residences, and other sensitive receptors adversely affected by existing or proposed pollution sources.
BRE-11.3	**Health Risks Assessments.** For proposed development that emits toxic air contaminants, require project proponents to prepare health risk assessments in accordance with Bay Area Air Quality Management District procedures as part of environmental review and implement effective

[17] BAAQMD. *Final 2017 Clean Air Plan.* April 19, 2017. http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans.

Morgan Hill 2035 General Plan Policies: Air Quality

Policy	Description
	mitigation measures to reduce potential health risks to less-than-significant levels. Alternatively, require these projects to be located an adequate distance from residences and other sensitive receptors to avoid health risks. Consult with the Bay Area Air Quality Management District to identify stationary and mobile toxic air contaminant sources and determine the need for and requirements of a health risk assessment for proposed developments.
NRE-11.6	**Vegetation Buffers.** Encourage the use of pollution-absorbing trees and vegetation in buffer areas between substantial sources of toxic air contaminants and sensitive receptors.
NRE-12.1	**Best Practices.** Require that development projects implement best management practices to reduce air quality emissions associated with construction and operation of the project.
NRE-12.2	**Conditions of Approvals.** Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At a minimum, conditions shall conform to construction mitigation measures recommended in the current Bay Area Air Quality Management District CEQA Guidelines.
NRE-12.3	**Control Measures.** Require construction and demolition projects that have the potential to disturb asbestos (from soil or building materials) to comply with all the requirements of the California Air Resources Board's air toxics control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.
NRE-12.4	**Grading.** Require subdivision designs and site design planning to minimize grading and use landform grading in hillside areas.
NRE-13.1	**Building Materials.** Promote the use of building materials that maintain healthful indoor air quality in an effort to reduce irritation and exposure to toxins and allergens for building occupants.
NRE-13.2	**Construction and Pre-Occupancy Practices.** Encourage construction and pre-occupancy practices to improve air quality for new development upon occupancy of the structure.
NRE-15.4	**Sustainable Land Use.** Promote land use patterns that reduce the number and length of motor vehicle trips.
NRE-15.6	**Residential Near Transit.** Encourage higher density residential and mixed-use development adjacent to commercial centers and transit corridors- the land along or within walking distance of a street served by transit.
NRE-15.10	**Green Building.** Promote green building practices in new development.
NRE-16.7	**Renewable Energy.** Encourage new and existing development to incorporate renewable energy generating features, like solar panels and solar hot water heaters.
NRE-16.8	**Residential Development Code.** Emphasize energy conservation building techniques for new residential construction through the implementation of Chapter 18.78 of the Municipal Code.
NRE-16.9	**Subdivision Design.** In compliance with Section 66473.1 of the state Subdivision Map Act, promote subdivision design that provides for passive solar heating and natural cooling through the Development Review Committee subdivision review procedures.
TR-2.1	**Multi-Modal System for All Users.** A balanced multi-modal system offers viable choices for residents, employees, customers, visitors, and recreational users. Use smart growth and Sustainable Communities principles throughout the City to provide a balanced transportation system which assures access to all, and which integrates all appropriate modes of transportation into an effectively functioning system, including modes such as auto, ride sharing, public rail and bus transit, paratransit, bicycling, and walking.

Morgan Hill 2035 General Plan Policies: Air Quality

Policy	Description
TR-2.2	**Integrated Land Use/Transportation Planning.** Integrate planning for land use and transportation development by ensuring that the timing, amount, and location of urban development is consistent with the development of the transportation system capacity. Promote environmental objectives that supports smart growth and Sustainable Communities principles, such as safe and uncongested neighborhoods, a pedestrian-friendly vibrant downtown that emphasizes non-auto transportation modes, energy conservation, reduction of air and noise pollution, and the integrity of scenic and/or hillside areas.
TR-6.12	**Bus Shelters from Private Development.** Require developers to install bus shelters compatible with City architectural standards, where appropriate.
TR-9.1	**Private Development Connections.** Encourage adequate pedestrian access in all developments, with special emphasis on pedestrian connections in the downtown area, in shopping areas, and major work centers, including sidewalks in industrial areas in accordance with the Trails and Natural Resources Master Plan.
TR-9.10	**Sidewalk Connectivity.** Improve sidewalk connectivity by installing new sidewalks where they do not exist, consistent with the Trails and Natural Resources Master Plan.
TR-10.4	**Air Quality and Transportation Demand Management.** Investigate opportunities for preparing and implementing Air Quality and Transportation Demand Management Plans by employers and developers of new residential and non-residential developments.

4.3.1.3 *Existing Conditions*

The 69.4-acre site is located at the south end of the Santa Clara Valley, within the San Francisco Bay Area Air Basin. The region typically has moderate ventilation and frequent inversions that restrict vertical dilution. The Santa Cruz Mountains and Diablo Range, located on either side of the Santa Clara Valley, restrict horizontal dilution. The surrounding terrain results in a prevailing wind that follows along the valley's northwest-southeast axis. The combined effects of these geographical and meteorological factors make air pollution potential in the Santa Clara Valley quite high. The San Francisco Bay Area, however, is considered a non-attainment area for ground-level O_3 and $PM_{2.5}$ under both the federal Clean Air Act and state Clean Air Act. The area is also considered nonattainment for PM_{10} under the state act, but not the federal act.

Existing Air Pollutant Levels

As mentioned previously, the San Francisco Bay Area Air Basin, within which the project site is located, has non-attainment status for ground level ozone, fine particulate matter ($PM_{2.5}$), and respirable particulate matter (PM_{10}). The San Francisco Bay Area Air Basin has attainment or undetermined status for all other regional criteria pollutants for which the US EPA and CARB have set standards. The nearest official monitoring station to the City of Morgan Hill is located at 158 East Jackson Street in San José, approximately 20 miles north of the site. Pollutant monitoring results for the years 2017 to 2019 at the San José monitoring station are shown in Table 4.3-2. The station monitors ozone, carbon monoxide, nitrogen oxide, PM_{10} and $PM_{2.5}$ levels.

Table 4.3-2: Ambient Air Quality Standards Violations and Highest Concentrations

Pollutant	Standard	Days Exceeding Standard		
		2017	2018	2019
San José Station				
Ozone	State 1-hour	6	2	6
	Federal 8-hour	6	3	9
Carbon Monoxide	Federal 8-hour	0	0	0
	State 8-hour	0	0	0
Nitrogen Dioxide	State 1-hour	1	0	0
	Federal 1-hour	0	0	0
PM_{10}	Federal 24-hour	0	1	0
	State 24-hour	6	6	5
$PM_{2.5}$	Federal 24-hour	18	18	1

Source: BAAQMD. Air Pollution Summaries (2017-2019). Available at: http://www.baaqmd.gov/about-air-quality/air-quality-summaries.

Sensitive Receptors

The closest sensitive receptors to the project site are the residents in the single-family houses, adjacent to the north and east of the site, and the Jackson Academy Math and Music Elementary School, approximately 160 feet northeast of the site. There are other single-family residences to the west and south of the site at further distances.

Odors

Common sources of odors and odor complaints include wastewater treatment plants, transfer stations, coffee roasters, painting/coating operations, and landfills. Significant sources of offending odors are typically identified based on complaint histories received and compiled by BAAQMD. Typical large sources of odors that result in complaints are wastewater treatment facilities, landfills including composting operations, food processing facilities, and chemical plants. Other sources, such as restaurants, paint or body shops, and coffee roasters typically result in localized sources of odors. There are no substantial sources of odor in the project area.

4.3.2 Impact Discussion

For the purpose of determining the significance of the project's impact on air quality, would the project:

1) Conflict with or obstruct implementation of the applicable air quality plan?

2) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
3) Expose sensitive receptors to substantial pollutant concentrations?
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Note: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the determinations.

4.3.2.1 *Project Impacts*

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

The BAAQMD CEQA Air Quality Guidelines set forth criteria for determining consistency with the CAP. In general, a project is considered consistent if it: a) supports the primary goals of the CAP; b) includes relevant control measures; and c) does not interfere with implementation of CAP control measures. The 2017 CAP contains a control strategy intended to complement efforts to improve air quality and protect the climate being made by other partner agencies at the state, regional and local levels. The strategy is based on the following four key priorities and identifies 85 individual control measures to reduce pollutant emissions.

- Reduce emissions of criteria pollutants and TACs from all key sources
- Reduce emissions of "Super GHGs" such as methane, black carbon, and fluorinated gases
- Decrease demand for fossil fuels
- Decarbonize our energy system

The proposed project would not conflict with the 2017 CAP because, as discussed below, the proposed project's emissions would be below the BAAQMD construction and operational criteria pollutant thresholds with implementation of mitigation measure MM AIR-1.1. Implementation of the project would not inhibit BAAQMD or partner agencies from continuing progress toward attaining state and federal air quality standards and eliminating health-risk disparities from exposure to air pollution among Bay Area communities, as described within the 2017 CAP.

Regional Criteria Pollutants

As discussed previously in Section 4.3.1, the Bay Area is considered a non-attainment area for ground-level O_3 and $PM_{2.5}$ under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for PM_{10} under the California Clean Air Act. As part of an

effort to attain and maintain ambient air quality standards for O_3 and PM_{10}, BAAQMD has established thresholds of significance for these air pollutants and their precursors. These thresholds are for O_3 precursor pollutants (ROG and NO_x), PM_{10}, and $PM_{2.5}$ and apply to both construction period and operational period impacts.

Construction-Related Criteria Pollutant Emissions

The California Emissions Estimator model (CalEEMod) Version 2016.3.2 was used to estimate annual emissions from construction activities. Refer to Appendix B for more information regarding assumptions and CalEEMod inputs. The construction schedule assumes that the project would be built in three phases over a period of approximately 60 months, or an estimated 1,480 construction workdays.

Table 4.3-3 shows the estimated daily air emissions from construction of the proposed project.

Table 4.3-3: Summary of Project Construction Emissions

Year	ROG	NOx	PM_{10} Exhaust	$PM_{2.5}$ Exhaust
Construction Emissions Per Year (tons)				
2022	0.58	5.02	0.24	0.20
2023	0.37	2.70	0.14	0.11
2024	0.36	2.59	0.13	0.10
2025	0.35	2.45	0.12	0.09
2026	0.35	2.45	0.12	0.09
2027	5.36	1.08	0.06	0.04
BAAQMD Threshold (tons)	*10*	*10*	*15*	*10*
Exceed Threshold?	No	No	No	No
Annualized Daily Construction Emissions (pounds/day)				
2022 (259 construction workdays)	4.44	38.72	1.86	1.52
2023 (261 construction workdays)	2.85	20.68	1.08	0.82
2024 (262 construction workdays)	2.75	19.81	0.99	0.74
2025 (261 construction workdays)	2.65	18.82	0.91	0.66
2026 (261 construction workdays)	2.65	18.82	0.91	0.66
2027 (176 construction workdays)	60.92	12.34	0.66	0.42
BAAQMD Threshold (pounds/day)	*54*	*54*	*82*	*54*
Exceed Threshold?	**Yes**	No	No	No

Source: Illingworth & Rodkin, Inc. *Morgan Hill Devco Air Quality Analysis, Morgan Hill, California.* June 1, 2023.

The calculated emissions presented above reflect the project description at the time the analysis was conducted, i.e., 262 single-family houses, 21 senior single-family houses with 20 ADUs, and 55 senior condominiums. The land uses have changed to include 223 single-family houses, 42 court-

style houses, 21 senior cottages, 34 senior duets, and 44 ADUs. The total square footage decreased from approximately 720,000 square feet to 611,550 square feet. Additional CalEEMod modeling was not conducted because these project changes would not change the expected construction activities and would not increase construction emissions such that NOx, PM_{10} exhaust, and $PM_{2.5}$ exhaust would exceed thresholds. As shown in the table above, unmitigated project construction would exceed the BAAQMD significance threshold for ROG in construction year 2027.

Impact AIR-1: Project construction would exceed the Bay Area Air Quality Management District (BAAQMD) significance threshold for reactive organic gases (ROGs).

Mitigation Measure: The project shall implement the following mitigation measures to ensure ROG emissions associated with project construction remain at a less than significant level.

MM AIR-1.1: During project construction, the project applicant shall use "super-compliant" low volatile organic compound (i.e., VOC) coatings, that have emissions lower than current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), for at least 50 percent of all residential interior paints and 50 percent of exterior paints. This includes all architectural coatings applied during both construction and reapplications throughout the project's operational lifetime. At least 50 percent of coatings applied must meet a "super-compliant" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used. Examples of "super-compliant" coatings are contained in the South Coast Air Quality Management District's website.[18]

In addition, consistent with standard City practices, the project would be required to implement the following standards to control dust and exhaust at the project site.

Standards Required for New Development within this Planned Development: The following standards shall be implemented during all phases of construction to control dust and exhaust at the project site:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).

[18] SCAQMD: http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings

- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
- Replant vegetation in disturbed areas as soon as possible after completion of construction.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of the California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations.

With implementation of MM AIR-1.1 and the standards listed above, the project's construction ROG emissions would be reduced to 31.01 lbs/day, which is below the BAAQMD single-source threshold of 54 lbs/day. Therefore, the project would have a less than significant impact.

Operational Period Emissions

Operational air emissions from the proposed project would be generated primarily from vehicles driven by future project residents. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. CalEEMod was used to estimate emissions from operation of the proposed project.

The assumptions and results are described in detail in the Air Quality Assessment prepared for this project (refer to Appendix B of this document). The estimated daily operational emissions from the proposed project are summarized in Table 4.3-4 below.

Table 4.3-4: Project Operational Period Emissions

Scenario	ROG	NO_x	PM_{10}	$PM_{2.5}$
2028 Project Operational Emissions (tons/year)	5.34	1.56	4.04	1.04
BAAQMD Threshold (tons/year)	*10*	*10*	*15*	*10*
Exceed Threshold?	No	No	No	No
2028 Project Operational Emissions (pounds/year)	29.29	8.53	22.12	5.69
BAAQMD Threshold (pounds/year)	*54*	*54*	*82*	*54*
Exceed Threshold?	No	No	No	No

Notes: Assumes 365-day operation

Source: Illingworth & Rodkin, Inc. *Morgan Hill Devco Air Quality Analysis, Morgan Hill, California.* June 1, 2023.

As shown in the table above, operational criteria pollutant emissions associated with the proposed project would not exceed BAAMD significance thresholds for ROG, NO_X, PM_{10}, $PM_{2.5}$. The calculated emissions presented above reflect the project description at the time the analysis was conducted. The land use changes would increase the total number of units by six and decrease the total square footage from 720,000 square feet to 611,550 square feet. Given the incremental nature of these changes, and how far the project emissions were below the thresholds as originally modeled, these changes would not increase operational emissions such that NOx, PM_{10} exhaust, and $PM_{2.5}$ exhaust would exceed thresholds.

The proposed project would not exceed the BAAQMD significance threshold for construction and operational criteria emissions with implementation of Mitigation Measure MM AIR-1.1. In addition, the project would be consistent with the applicable control measures. Therefore, the proposed project would not conflict with or obstruct implementation of the 2017 CAP. **(Less than Significant Impact with Mitigation Incorporated)**

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

As discussed under Impact AIR-1, construction and operational criteria pollutant emissions associated with the project would not exceed the BAAQMD significance thresholds. Since the project would have a less than significant criteria pollutant impact, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment. **(Less than Significant Impact)**

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

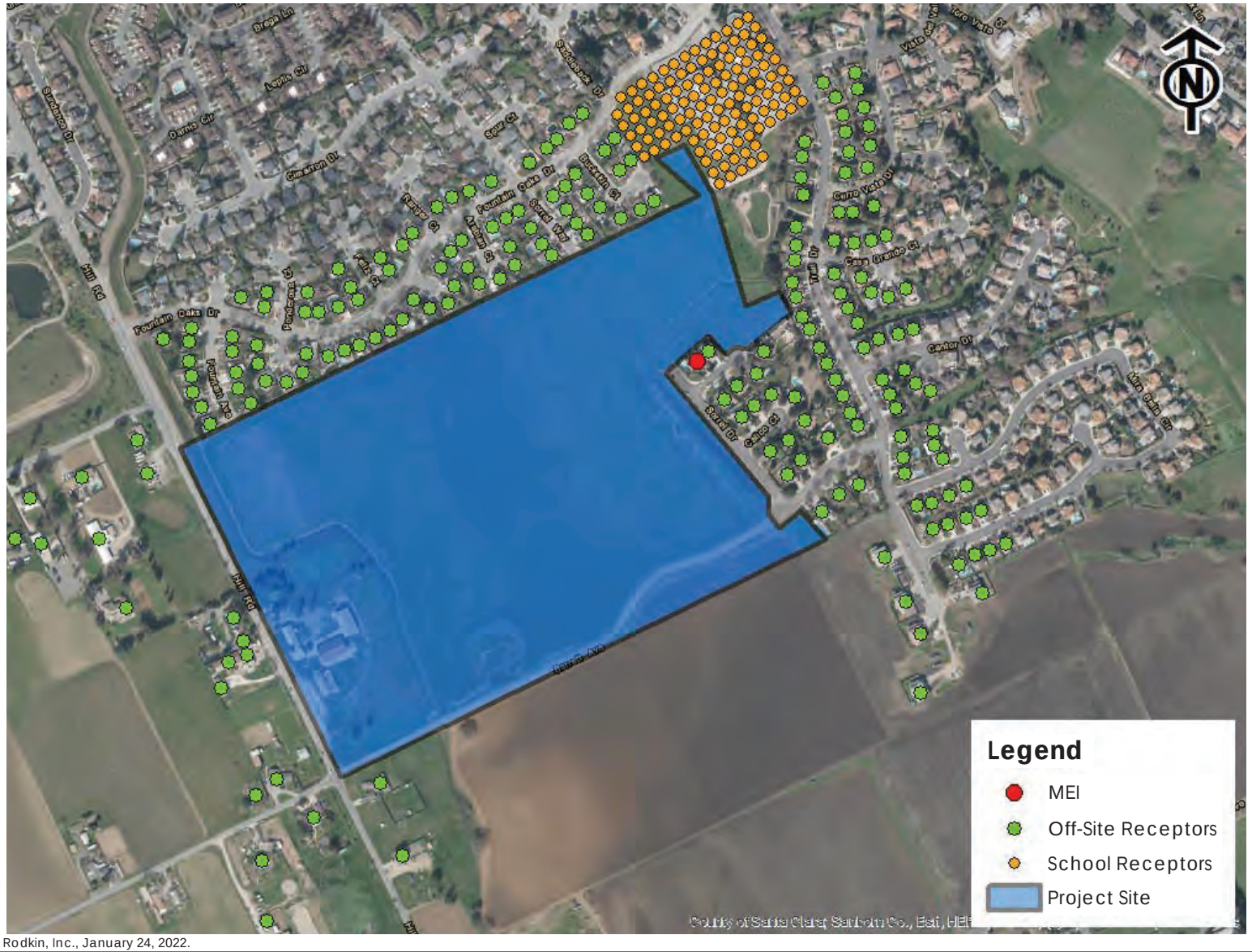
Project impacts related to increased community health risk can occur either by introducing a new source of TACs with the potential to adversely affect existing sensitive receptors in the project

vicinity or by significantly exacerbating existing cumulative TAC impacts. The project would introduce new sources of TACs during construction (i.e., on-site construction and truck hauling emissions) and operation (i.e., mobile sources).

Community Health Risks from Project Construction

Construction of the proposed project would generate dust and equipment exhaust that could affect nearby sensitive receptors. Construction equipment and associated heavy-duty truck traffic generate diesel exhaust, which is a known TAC. Construction exhaust emissions would not be considered to contribute substantially to air quality violations; however, these exhaust emissions could pose health risks for sensitive receptors. The primary community risk impact issues associated with construction emissions are cancer risk and exposure to $PM_{2.5}$. Diesel exhaust poses both a potential health and nuisance impact to nearby receptors. A health risk assessment of the project construction activities was conducted that evaluated potential health effects to nearby sensitive receptors from construction emissions of DPM and $PM_{2.5}$. The health risks assessment evaluated potential health effects to nearby receptors (within 1,000 feet of the project site) from construction emissions of DPM and $PM_{2.5}$. For the purposes of this analysis, receptors include locations where sensitive populations would be present for extended periods of time including all existing childcare and residences surrounding the project site. The maximum modeled DPM and $PM_{2.5}$ concentrations were identified at nearby sensitive receptors to find the maximally exposed individuals (MEI). The MEI most affected by construction is located on the first floor (five feet above ground) of a single-family residence to the east of the project site.

The locations of off-site sensitive receptors and the MEI are shown on Figure 4.3-1 and the estimated cancer risks and annual $PM_{2.5}$ concentrations are summarized in Table 4.3-5 below.



Source: Illingworth & Rodkin, Inc., January 24, 2022.

LOCATION OF OFF-SITE SENSITIVE RECEPTORS AND MEI | FIGURE 4.3-1

Table 4.3-5: Construction Risk Impacts at the Off-Site Receptors

Source		Cancer Risk (per million)	Annual $PM_{2.5}$ ($\mu g/m_3$)	Hazard Index
Project Construction	Unmitigated	15.96	0.20	0.01
	Mitigated	2.03	0.07	<0.01
BAAQMD Single-Source Threshold		*10*	*0.3*	*1.0*
Exceed Threshold?	Unmitigated	Yes	No	No
	Mitigated	No	No	No
Jackson Academy of Math and Music Elementary School Student Receptors				
Project Construction	Unmitigated	4.69	0.10	0.01
BAAQMD Single-Source Threshold		*10*	*0.3*	*1.0*
Exceed Threshold?	Unmitigated	No	No	No

Source: Illingworth & Rodkin, Inc. *Morgan Hill Devco Air Quality Analysis, Morgan Hill, California.* June 1, 2023.

As shown in Table 4.3-5 above, the unmitigated cancer risks from construction activities at the MEI location would exceed the BAAQMD single-source significance threshold.

Impact AIR-2: The project would exceed the BAAQMD single-source significance threshold for cancer risks at the maximally exposed individuals (MEI) location during construction.

Mitigation Measure: The project shall implement the following mitigation measures to ensure that potential air quality impacts remain at a less than significant level.

MM AIR-2.1: Prior to issuance of any demolition, grading, and/or building permits (whichever occurs earliest), the project applicant shall submit a construction operations plan to the Development Services Director that reduces diesel particulate matter emissions by 50 percent such that increased cancer risk and annual particulate matter ($PM_{2.5}$) concentrations would be reduced below TAC significance levels. The plan shall include the following:

1. At least 60 percent of construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards and the remaining 40 percent shall meet U.S. EPA Tier 3 emission standards, if feasible, otherwise,

    - If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB verifiable diesel emission control devices that altogether achieve a 50 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination).

- Use of electrical or non-diesel equipment with lower particulate matter emissions that meet the PM reduction requirements above.

2. Alternatively, the applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction diesel particulate matter emissions by 50 percent or greater. Elements of the plan could include a combination of some of the following measures:

    - Implementation of No. 1 above to use 60 percent Tier 4 and 40 percent Tier 3 or alternatively fueled equipment,
    - Installation of electric power lines during early construction phases to avoid use of diesel generators and compressors,
    - Use of electrically-powered equipment,
    - Forklifts and aerial lifts used for exterior and interior building construction shall be electric or propane/natural gas powered,
    - Change in construction build-out plans to lengthen phases, and
    - Implementation of different building techniques that result in less diesel equipment usage.

With implementation of Mitigation Measure MM AIR-2.1, cancer risk would be reduced to 2.03 cases per one million, which is below the BAAQMD single-source threshold of 10.0 cases per million. Therefore, the project would have a less than significant off-site community risk impact from construction.

It is important to note that a property identified as the MEI (red dot shown on Figure 4.3-1) does not mean the individuals at that location have an imminent probability or chance of contracting cancer or experiencing acute/chronic health risks. The properties identified as the MEI(s) represent the areas with the highest exposures to TACs generated from construction and subsequent operation of the proposed project, and therefore, their exposures are used to assess whether a significant impact would result or not, and if so, to identify the level of mitigation necessary to reduce the impact below the threshold of significance. The health risks computed are not reflective of cancer or hazard risks to be experienced by a singular individual, but indicate the rate of cancer or other health risk, if applied to the general population, with particular attention paid to infant and children exposure. As shown in Table 4.3-5 and discussed above, construction of the proposed project would temporarily increase the chance of cancer risk by 2.03 cases per one million.

Community Health Risks from Project Operation

Operation of the project would have long-term emissions from mobile sources (i.e., traffic). Stationary equipment that could emit substantial TACs, such as emergency generators, is not planned for this project. Per BAAQMD recommended risks and methodology, a road with less than

10,000 total vehicles per day is considered a low-impact source of TACs. Hill Road has an average daily traffic volume (ADT) of 6,575 vehicles per day and Barrett Avenue has an average ADT of 1,570 vehicles per day.[19] The proposed project would generate 3,000 daily trips dispersed on the roadway systems with a majority of the trips generated by light-duty vehicles. As a result, emissions from project traffic would be negligible and would have a less than significant impact on sensitive receptors in the area.

Summary of Project-Related Community Health Risks

The overall project cancer risks, $PM_{2.5}$ concentration, and HI from construction activities at the construction project MEI location would not exceed the BAAQMD single-source significance thresholds with implementation of MM AIR-2.1. As stated above, given the project would generate average daily trips well below 10,000, the cancer risk, $PM_{2.5}$ concentration, and HI at the project MEI would be BAAQMD thresholds. Therefore, TAC emissions from project construction and operations would have a less than significant impact on sensitive receptors. **(Less than Significant Impact with Incorporation of Mitigation)**

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

BAAQMD has identified a variety of land uses and types of operations that would produce emissions that may lead to odors in their CEQA Air Quality Guidelines. Some of the identified land uses include wastewater treatment plants, sanitary landfills, food processing facilities, coffee roasters, compositing facilities, and confined animal facility/feed lot/dairy facility. The proposed project would construct residential units, which do not fall under any of the land uses BAAQMD has identified.

Future construction activities in the project area could result in odorous emissions from diesel exhaust associated with construction equipment. Because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure of sensitive receptors to these emissions would be limited.

Furthermore, the proposed pond would be managed to prevent generation of odors by circulating and aerating the water through the application of a fountain and pumps. The pond would prevent elevated water temperatures, which would control algae growth. Therefore, the project is not expected to generate odors that could cause complaints and affect a substantial number of people, and impacts would be less than significant. **(Less than Significant Impact)**

[19] Hexagon Transportation Consultants. *Transportation Analysis for Morgan Hill Devco Project.* May 22, 2023.

4.3.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a significant cumulative air quality impact?

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to result in the region being in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. The proposed project would not result in significant construction or operational emissions above BAAQMD thresholds; therefore, with the implementation of mitigation measure MM AIR-1.1 and standard permit condition to minimize dust and exhaust emissions, the project would not result in a cumulatively considerable contribution toward regional emissions. Therefore, the project would result in a less than significant cumulatively considerable contribution to a significant regional air quality impact. **(Less than Cumulatively Considerable Contribution to a Significant Cumulative Impact)**

Combined Impact of TAC Sources on the Off-Site MEI

The geographic area for cumulative impacts to sensitive receptors is 1,000 feet from the project site. As shown on Figure 4.3-2, there are no existing TAC sources within 1,000 feet of the project site, therefore, project construction activities would be the only TAC source affecting receptors in the project area. Furthermore, as discussed under checklist question c) above, community risk from project construction activities would not exceed the single-source maximum increased cancer risk, $PM_{2.5}$ concentration or HI thresholds with implementation of MM AIR-2.1. As a result, the cumulative community risk impacts would be less than significant. **(Less than Significant Cumulative Impact)**

4.3.3 Non-CEQA Effects

Pursuant to California Building Industry Association v. Bay Area Air Quality Management District, 62 Cal. 4th 369 (BIA v. BAAQMD), effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City of Morgan Hill has policies that address existing air quality conditions affecting a proposed project.

On-Site Community Risk Assessment for TAC Sources

There are no existing TAC sources (i.e., roadways with over 10,000 daily vehicles or permitted BAAQMD stationary sources) within 1,000 feet of the project site that would cause substantial health risks at the new proposed sensitive receptors (residents) that the project would introduce. Therefore, an on-site community health risk impact assessment was not conducted.

Source: Illingworth & Rodkin, Inc., January 24, 2022.

PROJECT SITE AND NEARBY TAC AND $PM_{2.5}$ SOURCES | FIGURE 4.3-2

4.4 Biological Resources

The following discussion is based, in part, on a Tree Inventory prepared for the project by Michael L. Bench dated May 2017, and on a Biological Resources Report prepared for the project by H.T. Harvey and Associates, Inc., dated June 12, 2023. Copies of these reports are included as Appendices C and D, respectively.

4.4.1 Environmental Setting

4.4.1.1 *Regulatory Framework*

Federal and State

Endangered Species Act

Individual plant and animal species listed as rare, threatened, or endangered pursuant to state and federal Endangered Species Acts are considered special-status species. Federal and state endangered species legislation has provided the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Permits may be required from both the USFWS and CDFW if activities associated with a proposed project would result in the take of a species listed as threatened or endangered. To "take" a listed species, as defined by the State of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" these species. Take is more broadly defined by the federal Endangered Species Act to include harm of a listed species.

In addition to species listed under state and federal Endangered Species Acts, Sections 15380(b) and (c) of the CEQA Guidelines provide that all potential rare or sensitive species, or habitats capable of supporting rare species, must be considered as part of the environmental review process. These may include plant species listed by the California Native Plant Society and CDFW-listed Species of Special Concern.

Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits killing, capture, possession, or trade of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. Hunting and poaching are also prohibited. The taking and killing of birds resulting from an activity is not prohibited by the MBTA when the underlying purpose of that activity is not to take birds.[20] Nesting birds are considered special-status species and are protected by the USFWS. The CDFW also protects migratory and nesting birds under California Fish and Game Code Sections 3503, 3503.5, and 3800. The CDFW defines taking as causing abandonment and/or loss of reproductive efforts through disturbance.

[20] United States Department of the Interior. "Memorandum M-37050. The Migratory Bird Treaty Act Does Not Prohibit Incidental Take." Accessed March 9, 2022. https://www.doi.gov/sites/doi.gov/files/uploads/m-37050.pdf.

Sensitive Habitat Regulations

Wetland and riparian habitats are considered sensitive habitats under CEQA. They are also afforded protection under applicable federal, state, and local regulations, and are generally subject to regulation by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and/or the USFWS under provisions of the federal Clean Water Act (e.g., Sections 303, 304, 404) and State of California Porter-Cologne Water Quality Control Act.

Fish and Game Code Section 1602

Streambeds and banks, as well as associated riparian habitat, are regulated by the CDFW pursuant to Section 1602 of the Fish and Game Code. Work within the bed or banks of a stream or the adjacent riparian habitat requires a Streambed Alteration Agreement from the CDFW.

Regional and Local

Santa Clara Valley Habitat Plan/Natural Community Conservation Plan

The Santa Clara Valley Habitat Plan/Natural Community Conservation Plan (Habitat Plan) covers approximately 520,000 acres, or approximately 62 percent of Santa Clara County. It was developed and adopted through a partnership between Santa Clara County, the Cities of San José, Morgan Hill, and Gilroy, Santa Clara Valley Water District (Valley Water), Santa Clara Valley Transportation Authority (VTA), USFWS, and CDFW. The Habitat Plan is intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth in southern Santa Clara County. The Santa Clara Valley Habitat Agency is responsible for implementing the plan.

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts to biological resources. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Biological Resources

Policy	Description
NRE-1.10	**Wetland Delineation and Mitigation.** Require wetland delineation and mitigation as part of the environmental review of future development.
NRE-1.11	**Wetlands Enhancement.** Encourage enhancement of sensitive wetlands as part of future development.
NRE-5.2	**Other Agencies and Environmental Review.** Coordinate with jurisdictional agencies, as required, as part of the environmental review process for development projects.
NRE-5.4	**Development Impacts in Riparian Areas.** Consider development impacts upon wildlife in riparian areas and mitigate those environmental impacts.

Morgan Hill 2035 General Plan Policies: Biological Resources

Policy	Description
NRE-6.2	**Habitat Conservation Plan.** Support the implementation of the Santa Clara Valley Habitat Plan to protect wildlife, rare and endangered plants and animals, and sensitive habitats from loss and destruction.
NRE-6.3	**Urban Expansion Impacts.** Minimize impacts upon wildlife when considering annexations, urban service area extensions, and other governmental actions that permit urban development of previously undeveloped property.
NRE-6.4	**Tree Preservation and Protection.** Preserve and protect mature, healthy trees whenever feasible, particularly native trees, historically significant trees, and other trees which are of significant size or of significant aesthetic value to the immediate vicinity or to the community as a whole.

4.4.1.2 *Existing Conditions*

The approximately 69.4-acre project site is located at the intersection of Barrett Road and Hill Avenue in Morgan Hill. The site is largely undeveloped, and the ground is predominantly fallowed. There are four vacant structures, formerly used for agricultural purposes on the southeastern portion of the site, surrounded by trees. There is an existing retention basin on the southwestern portion of the site. Tennant Creek bisects the project site from the northwest boundary to southwest boundary.

Land Cover and Wildlife Use

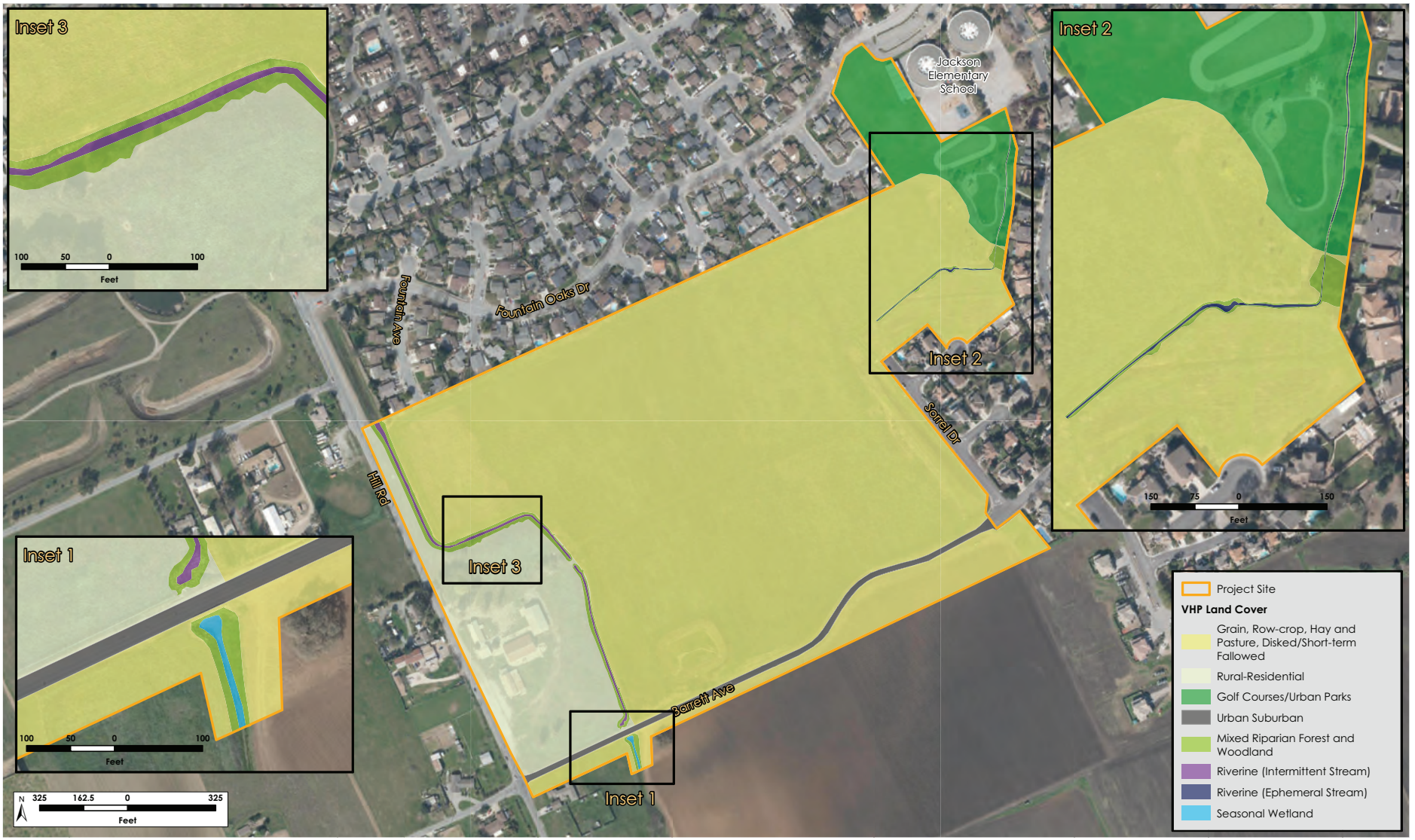
The project site is located within the Habitat Plan permit area. Habitat and land cover types on the project site are based upon Habitat Plan mapping with modifications based upon site conditions observed during a 2021 field survey by H.T. Harvey & Associates (refer to Appendix C). The project site contains eight land cover types, discussed below[21] and shown on Figure 4.4-1.

Grain, Row-crop, Hay and Pasture, Disked/Short-term Fallowed

Approximately 60 acres of the project site is considered grain, row-crop, hay and pasture, disked/short-term fallowed land. The vegetation that was disked on-site includes wild oats, ripgut brome, and foxtail barley. Common forb species include patches of field bindweed, prickly lettuce, short-podded mustard, and perennial pepperweed. No native plant species were observed. An approximately 0.6-acre abandoned detention basin is present on the project site and was included in this land cover type because no wetland vegetation was observed and the vegetation within the basin was similar to the fallowed portions of the agricultural land.

Cultivated agricultural lands in the project area support relatively few wildlife species due to the frequent disturbance associated with disking and lack of vegetation caused by disking. A small

[21] H.T. Harvey's Biological Resources Report analyzed a site of 77.11 acres, approximately 10 acres larger than the site of the proposed development. Acreages in this discussion are based on those included in H.T. Harvey's analysis.



Source: H.T. Harvey & Associates, February 2022.

LAND COVER MAP

FIGURE 4.4-1

number of California ground squirrel and Botta's pocket gopher burrows occur on the soil stockpile along the eastern portion of the site and on the slopes of the dry retention pond. Gopher snakes, yellow-bellied racers, western fence lizards, and common bats forage the margins of the agricultural fields. Raptors such as red-tailed hawks, American kestrels, and white-tailed kites forage for these animals. When the fields are cultivated, they are expected to be used by relatively few wildlife species; however, red-winged blackbirds may nest in hay fields or in mustard within cultivated fields. During fall and winter after the fields have been disked, nonbreeding birds such as the Canada goose, killdeer, American pipit, and savannah sparrow forage in these fields.

Rural-Residential

Approximately 10 acres of the project site consists of rural-residential land cover, primarily associated with the buildings located in the southwest corner of the property. Surrounding the buildings, the land is mostly fallow and dominated by non-native grasses such as foxtail barley and Italian rye grass. Among the grass are patches of non-native forbs such as red-stemmed filaree, short-podded mustard, stinkwort, purple sand spurry, narrow-leaved plantain, and yellow star thistle. The site contains an ordinance-sized Chinese juniper, a stand of ordinance-size coast live oaks, an ordinance-size Northern California black walnut, and two ordinance-size red ironbark trees.

Wildlife use of the rural-residential area on the project site is limited by human disturbance and low structural diversity of the vegetation. Wildlife either use the vacant structures or are attracted to trees and other landscaping for breeding and foraging. Common bats, Townsend's big-eared bat, and one or two pallid bats were detected using one of the abandoned buildings as a night roost during H.T. Harvey's June 2021 survey, though there was no evidence of use of the buildings as day roosts. Burrows of California ground squirrels and Botta's pocket gophers were observed clustered throughout the rural-residential area. Other rodent species that have the potential to occur in this area include the California vole and deer mouse. Red-tailed hawks and white-tailed kites forage for these small mammals during the day. At night, nocturnal raptors such as barn owls forage for nocturnal rodents.

Golf Courses/Urban Parks

As shown on Figure 4.4-1, approximately 1.5 acres of the project site consists of the golf courses/urban parks land cover. This includes Jackson Park, which contains maintained landscaping including an ornamental lawn, London plane trees, California redwoods, and cork oaks.

Jackson Park, and other urban park areas within the project area, serve as wildlife habitat in a very limited capacity. Most wildlife species that occur in this area are tolerant of frequent human disturbances. Species that use these areas include the nonnative European starling, rock pigeon, house mouse, Norway cat, native raccoon, and striped skunk. Reptiles such as western fence lizards and gopher snakes may also be present, typically on road or parking lot surfaces where they can bask in sunlight. Birds that nest and forage in landscaped vegetation include the Anna's hummingbird, California towhee, bushtit, chestnut-backed chickadee, and California scrub-jay. Large nonnative trees provide potential nesting for raptors such as Cooper's hawks.

Urban-Suburban

Approximately one acre of the project site is urban-suburban land cover. This consists of Barrett Avenue, which is a regularly maintained asphalt surface. Wildlife that occurs in the surrounding areas may occasionally be found on the asphalt surfaces of Barrett Avenue.

Riverine (Intermittent Stream)

Tennant Creek is identified as an intermittent stream. Due to the lack of differentiation between the vegetation of Tennant Creek and the surrounding riparian habitat, wildlife use of intermittent stream habitat on the project site is low. Species that use the agricultural fields (described under Grain, Row-crop, Hay and Pasture, Disked/Short-Term Fallowed Land) are also expected to occur in and along Tennant Creek. Lack of persistent flows precludes the presence of fishes. During the brief periods when the creek contains water, mallards are expected to forage in the stream temporarily.

Riverine (Ephemeral Stream)

East of Jackson Park, there is a small concrete-lined ephemeral drainage surrounded by non-native annual grasses. The drainage runs adjacent to residences east of the project site and is fed by stormwater runoff from the surrounding residential neighborhoods. Wildlife use of this stream is limited by brief duration of flow, lack of riparian vegetation, and disturbance of surrounding areas by agricultural activities, mowing, and park use. Wildlife that uses the adjacent habitats may occasionally forage in or move through the ephemeral drainage, but no stream- or riparian-associated species appear to use this feature.

Mixed Riparian Forest and Woodland

Approximately one acre of the project site is mixed riparian forest and woodland land cover, which consists of the banks and associated vegetation rooted within Tennant Creek, and the low banks of the ephemeral drainage. The banks of Tennant Creek support mostly ruderal non-native herbaceous vegetation and approximately nine woody perennials including coyote brush, coast live oak, and cork oak. The banks of the ephemeral drainage are vegetated with non-native grasses, similar to the surrounding agricultural field. Although this land cover type is not a true forest or woodland, it is designated as mixed riparian forest and woodland per Habitat Plan standards.

Seasonal Wetland

Tennant Creek crosses Barrett Avenue in an underground culvert near the southwest corner of the project area. The creek daylights south of the project site across Barrett Avenue, where rocks are placed to dissipate flow velocity and reduce bank erosion (a method referred to as riprap). Seasonal wetlands are located at the toe of the riprap slopes. The vegetation is thick and dominated by Himalayan blackberry, curly dock, short-podded mustard, poison hemlock, and wild radish.

The small size, isolation, short hydroperiod, and weedy vegetation of the wetlands on the project site limit their value as wildlife habitat. Wildlife use of the seasonal wetlands in the project area is expected to be similar to those using the agricultural fields and rural-residential land cover.

Special-Status Plant Species

The Biological Resources Report identified a total of 72 special-status plant species as potentially occurring in the project vicinity. All of the potentially occurring special-status plant species were determined to be absent from the project site for at least one of the following reasons:

- Absence of suitable habitat types;
- Lack of specific microhabitat or edaphic requirements, such as serpentine soils;
- The elevation range of the species is outside of the range of the project area; and/or
- The species is presumed extirpated from the project region.

All habitat types in the project area have been previously disturbed for agricultural purposes, leaving no undeveloped areas remaining.

Special-Status Animal Species

The Biological Resources Report identified several special-status animal species as potentially occurring in the project vicinity. However, most of these species were determined to be absent from the project site. Species considered for occurrence but rejected include the Bay checkerspot butterfly, western bumble bee, foothill yellow-legged frog, least Bell's vireo, and San Joaquin's kit fox.

Six special-status species with potential to occur on or around the project site include the bald eagle, golden eagle, Swainson's hawk, tricolored blackbird, American badger, and mountain lion. These species are not expected to breed, roost, den, or reside on or around the site due to a lack of suitable habitat, regular disturbance of the site, and proximity to human activity.

As mentioned previously, two special-status bats (the Townsend's big-eared bat and the pallid bat) were detected using the project site as a night roost. However, there was no evidence that these species use the site as a day roost and no evidence of nesting. Further, the detection of only four individual bats indicated that low numbers of bats use the sites. Both species are expected to occur in very small numbers as nonbreeding visitors and foragers.

Four other special-status animals (the California red-legged frog, California tiger salamander, western pond turtle, and burrowing owl) may occur on the project site as rare, nonbreeding seasonal residents.

The loggerhead shrike, a California bird species of special concern, and the white-tailed kite, a state fully protected animal, could potentially breed on the project site in low numbers. The monarch

butterfly (a candidate for federal listing under FESA) and Crotch's bumble bee (a candidate for listing under CESA) may also breed on the project site in small numbers.

Wildlife Movement

Movement corridors are segments of habitat that provide linkages for wildlife through the mosaic of suitable and unsuitable habitat types found within a landscape while also providing cover. Corridors also function as paths along which wide-ranging animals can travel, populations can move in response to environmental changes and natural disasters, and genetic interchange can occur. In California, environmental corridors often consist of riparian areas along streams, rivers, or other natural features, or through undeveloped areas of natural habitat.

While small-scale, local movement of wildlife may occur throughout the project site, the site is not located within a particularly important area for regional, landscape-scale wildlife movement because of the impediments posed by residential lands to the north, US 101 and other roads, and residential, commercial, and industrial land uses to the west.

Sensitive Habitats

Natural Communities

A query of sensitive habitats in the California Natural Diversity Database identified two sensitive natural communities as occurring within the surrounding project area or in the United States Geological Survey (USGS) quadrangles containing or surrounding the project area. This included sycamore alluvial woodland and serpentine bunchgrass grassland.

Riparian Habitat

Due to its rarity and disproportionately high habitat values and functions to wildlife, CDFW considers riparian habitat to be sensitive. The CDFW would likely claim jurisdiction over areas at, and below, the top of bank lines on either side of Tennant Creek and the unnamed ephemeral stream regardless of the vegetative composition of these areas.

Tennant Creek and the seasonal wetlands across Barrett Avenue that Tennant Creek supports are considered waters of the U.S. and waters of the state up to the ordinary high water mark lines. Jurisdictional riparian buffers for waters of the state in the project area would likely extend up to the top of bank lines of the Tennant Creek, which within the project area encompasses the edges of riparian tree canopies. The ephemeral drainage in the eastern portion of the site that flows from Jackson Park would be considered waters of the U.S. and waters of the state.

Trees

The project site contains a total of 47 trees, as shown in Table 4.4-1 below.

Table 4.4-1: Existing Trees on Project Site

Common Name	Scientific Name	Diameter at Breast Height (DBH)	Morgan Hill Tree?
Italian Cypress	*Cupressus sempervirens*	8 @ 6”	No
Italian Cypress	*Cupressus sempervirens*	8 @ 6”	No
Red Ironbark	*Eucalyptus sideroxylon*	22	Yes
Red Ironbark	*Eucalyptus sideroxylon*	23	Yes
Red Ironbark	*Eucalyptus sideroxylon*	20	Yes
Red Ironbark	*Eucalyptus sideroxylon*	19	Yes
Hollywood Juniper	*Juniperus chinensis ‘Kaizuka’*	18	Yes
Hollywood Juniper	*Juniperus chinensis ‘Kaizuka’*	16 / 12	Yes
English Walnut	*Juglans regia*	12	No
Black Walnut	*Juglans hindsii*	17 / 10	Yes
Japanese Privet	*Ligustrum japonicum*	14	Yes
Japanese Privet	*Ligustrum japonicum*	10	Yes
Almond	*Prunus dulcis*	8 / 7	No
Almond	*Prunus dulcis*	20	Yes
Almond	*Prunus dulcis*	6 / 5	No
Valley Oak	*Quercus lobata*	11 / 8 / 8	Yes
Coast Live Oak	*Quercus agrifolia*	13 / 11	Yes
Coast Live Oak	*Quercus agrifolia*	8	Yes
Coast Live Oak	*Quercus agrifolia*	12 / 12	Yes
Coast Live Oak	*Quercus agrifolia*	14	Yes
Coast Live Oak	*Quercus agrifolia*	8	Yes
Coast Live Oak	*Quercus agrifolia*	24	Yes
Coast Live Oak	*Quercus agrifolia*	12	Yes
Coast Live Oak	*Quercus agrifolia*	6	Yes
Coast Live Oak	*Quercus agrifolia*	7	Yes
Coast Live Oak	*Quercus agrifolia*	18	Yes
Coast Live Oak	*Quercus agrifolia*	20	Yes
Coast Live Oak	*Quercus agrifolia*	8	Yes
Coast Live Oak	*Quercus agrifolia*	30	Yes
Coast Live Oak	*Quercus agrifolia*	17 @ 24	Yes
Coast Live Oak	*Quercus agrifolia*	12	Yes
Coast Live Oak	*Quercus agrifolia*	8	Yes
Coast Live Oak	*Quercus agrifolia*	17	Yes

Common Name	Scientific Name	Diameter at Breast Height (DBH)	Morgan Hill Tree?
Coast Live Oak	*Quercus agrifolia*	10	Yes
Coast Live Oak	*Quercus agrifolia*	17	Yes
Coast Live Oak	*Quercus agrifolia*	28	Yes
Coast Live Oak	*Quercus agrifolia*	8 / 7 / 7 / 6	Yes
Coast Live Oak	*Quercus agrifolia*	15	Yes
Coast Live Oak	*Quercus agrifolia*	24	Yes
Coast Live Oak	*Quercus agrifolia*	7	Yes
Coast Live Oak	*Quercus agrifolia*	17	Yes
Coast Live Oak	*Quercus agrifolia*	20	Yes
Evergreen Ash	*Fraxinus uhdei*	25	Yes
Plum	*Prunus cerasifera*	10	No
English Hawthorne	*Crataegus laevigata*	5 / 4	No
Monterey Pine	*Pinus radiata*	26	Yes
Fremont Cottonwood	*Populus fremontii*	22	Yes

Santa Clara Valley Habitat Plan

The proposed project is a covered project under the Habitat Plan and is therefore required to comply with all applicable conditions. Conditions applicable to the proposed project include:

- Condition 1. Avoid direct impacts on legally protected plant and wildlife species.
    - Actions conducted under the Habitat Plan must comply with the provisions of the MBTA and California Fish and Game Code.
- Condition 3. Maintain hydrologic conditions and protect water quality.
    - Identifies a set of programmatic BMPs, performance standards, and control measures to minimize increases of peak discharge of stormwater and to reduce runoff of pollutants to protect water quality, including during project construction. Requirements include preconstruction, construction site, and post-construction actions.
- Condition 4. Avoidance and minimization for in-stream projects.
    - Requires the design of projects that occur within the bed and bank of streams, and within adjacent riparian corridors, to minimize impacts on stream habitat and flows.
- Condition 11. Stream and riparian setbacks.
    - Requires new projects to adhere to setbacks from creeks and streams and associated riparian vegetation to minimize and avoid impacts on aquatic and riparian land cover types, covered species, and wildlife corridors.

- Condition 17. Tricolored blackbird.
    - Requires projects located within 250 feet of any riparian, coastal, and valley freshwater marsh to protect tricolored blackbirds by prescribing preconstruction surveys, construction buffer zones, biological monitoring, and other requirements.

4.4.2 Impact Discussion

For the purpose of determining the significance of the project's impact on biological resources, would the project:

1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?
2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?
3) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

4.4.2.1 *Project Impacts*

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS?

Nesting Birds

Construction disturbance and project tree removal during the avian breeding season (February 1 through August 31 inclusive, for most species) could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. Because the project could disturb nesting activity during construction, it would be considered a significant impact under CEQA.

Impact BIO-1: The project could disturb nesting bird activity during construction.

Mitigation Measures: The project applicant shall implement the following mitigation measures to ensure that potential impacts to nesting activity remain at a less than significant level.

MM BIO-1.1: To the extent feasible, construction activities shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts to nesting birds protected under the MBTA and California Fish and Game Code will be avoided. The nesting season for most birds in Santa Clara County extends from February 1 through August 31, inclusive.

If construction activities and/or tree removal cannot be scheduled to occur between September 1 and January 31, preconstruction surveys for nesting birds shall be conducted by a qualified biologist or ornithologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than seven days prior to the initiation of demolition or construction activities including tree removal and pruning. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests. If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species), to ensure that no nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.

The written report shall indicate the results of the survey, a map of identified active nests, and any designated buffer zones or other protective measures to be implemented with the project.

Implementation of mitigation measure MM BIO-1.1 above would reduce any potential impacts to nesting birds to less than significant levels. **(Less than Significant Impact with Mitigation Incorporated)**

Nitrogen Deposition Impacts on Serpentine Habitats

All development covered by the Habitat Plan is required to pay a nitrogen deposition fee as mitigation for cumulative impacts to serpentine plants in the Habitat Plan area. Nitrogen deposition is known to have damaging effects on many of the serpentine plants in the Habitat Plan area, as well as the host plants that support the Bay Checkerspot butterfly. All major remaining populations of the butterfly and many of the sensitive serpentine plant populations occur in areas subject to air pollution from vehicle exhaust and other sources throughout the Bay Area including the project

area. Because serpentine soils tend to be nutrient poor, and nitrogen deposition artificially fertilizes serpentine soils, facilitating the spread of invasive plant species. The displacement of these species, and subsequent decline of the several federally listed species, including the butterfly and its larval host plants, has been documented on Coyote Ridge in central Santa Clara County.

Nitrogen tends to be efficiently recycled by the plants and microbes in infertile soils such as those derived from serpentine, so that fertilization impacts could persist for years and result in cumulative habitat degradation. The impacts of nitrogen deposition upon serpentine habitat and the Bay Checkerspot butterfly can be correlated to the amount of new vehicle trips that a project is expected to generate. The nitrogen deposition fees collected under the Habitat Plan for new vehicle trips will be used as mitigation to purchase and manage conservation land for the Bay Checkerspot butterfly and other sensitive species. The project, which would generate approximately 3,000 new daily vehicle trips by residents and therefore contribute to the effects of nitrogen deposition on serpentine plant and animal communities, would implement the following standards.

Standards Required for New Development within this Planned Development:

- The project shall implement the following standard permit condition to ensure compliance with the Habitat Plan's nitrogen deposition fee. Fees. The proposed project is covered pursuant to the Santa Clara Valley Habitat Plan (Habitat Plan) and subject to fees and conditions contained in the Habitat Plan.
- Application Package. Prior to issuance of a grading permit, the project shall complete and submit a Habitat Plan Application Package. All fees shall be paid prior to issuance of a grading permit.
- Any additional conditions or mitigations required by the Habitat Plan shall be clearly stated on all plans that involve any ground disturbing activity (i.e., grading plans, improvement plans, paving plans, demolition plans or other plans for site clearing or temporary stockpile of dirt).

Implementation of the standards listed above would ensure that impacts to serpentine communities and species remain at less than significant levels. **(Less than Significant Impact)**

Special-Status Animals

As discussed under Section 4.4.1.2 Existing Conditions, several special-status animal species could potentially occur in the project area as nonbreeding migrants, visitors, or foragers, but are not known or expected to be located on or near the project site.

Tricolored Blackbird, Bald Eagle, Golden Eagle, Mountain Lion, and American Badger

The tricolored blackbird, bald eagle, and golden eagles do not breed on or close to the project site, but individuals may occur as foragers during the nonbreeding season. The mountain lion and American badger may occur as occasional foragers on the site but are not expected to establish breeding dens or make regular use of the site.

Construction activities would result in a temporary impact due to increased noise levels and ground disturbance; however, this would not result in the loss of individuals of these species because they would move away from construction areas before they could be injured or killed.

Implementation of the proposed project would result in permanent loss of foraging habitats. However, the land cover types on the project site do not provide important habitat and are of low quality. The land cover types that would be lost represent a small portion of the foraging habitat available throughout the region. For these reasons, loss of this potential foraging habitat would have minimal impact for these species and would be considered a less than significant impact. **(Less than Significant Impact)**

Burrowing Owl

The burrowing owl is not known or expected to nest on or close to the project site, but it may occur as a wintering resident or migrant, and nonbreeding individuals could potentially forage and roost in the project area. The project site does not provide high-quality roosting habitat; however, to the extent that burrowing owls use the site, project activities would result in the loss of foraging and roosting habitat and could potentially disturb foraging and roosting individuals. Due to the rarity of the burrowing owl in the region and the effects on burrowing owl populations of the loss of any individuals, the loss of individual burrowing owls would be considered a significant impact.

Impact BIO-2: The project could impact burrowing owl habitat or individuals during construction.

Mitigation Measures: The project applicant shall implement the following mitigation measures to ensure that potential impacts to burrowing owls remain at a less than significant level.

MM BIO-2.1: Preconstruction surveys for burrowing owls shall be conducted prior to the initiation of construction activities within suitable burrowing owl roosting habitat (i.e., ruderal grassland habitat or agricultural lands with burrows of California ground squirrels), or within 250 feet of this habitat. During the initial site visit, a qualified biologist shall survey the entire project site and areas within 250 feet by walking transects with centerlines no more than 50 feet apart to ensure complete visual coverage and look for suitable burrows that could be used by burrowing owls. If no suitable burrows are present, no additional surveys are required. If suitable burrows are determined to be present within 250 feet of the project impact areas, a qualified biologist shall conduct a second survey to determine whether owls are present in areas where they could be affected by proposed activities. The surveys shall last a minimum of three hours, beginning one hour before sunrise and continuing until two hours after sunrise, or beginning two hours before sunset and continuing until one hour after sunset. The first survey may occur up to 14 days prior to the start of construction activities in any given area, and the second survey shall be conducted within two days prior to the start of

construction activities. The report indicating the result of the surveys and any designated buffer zones shall be submitted to the satisfaction of the Development Services Director or Director's designee prior to initiation of construction activities.

- If burrowing owls are detected during the pre-activity survey, a 250-foot buffer, within which no newly initiated construction-related activities will be permissible, shall be maintained between construction activities and occupied burrows. Though highly unlikely, owls present between February 1 and September 8 will be assumed to be nesting, and the 250-foot protected areas shall remain in effect until September 8, or until the burrow is no longer occupied, whichever occurs first.

- If maintaining a 250-foot buffer around active owl burrows is not feasible, the buffer may be reduced if (1) the individual or nest is not disturbed, and (2) the contractor develops an avoidance, minimization, and monitoring plan that shall be reviewed and approved by the CDFW and USFWS prior to project description. The plan shall include the following measures:
    - A qualified biologist shall monitor the owls for at least three days prior to construction as well as during construction.
    - If the biologist observes no change in the owls' nesting or foraging behavior, construction activities may proceed.
    - If changes in the owls' behavior as a result of work activities are observed, activities shall cease within 250 feet of the active burrow location(s). Work activities may resume when the burrows are no longer occupied.
    - If monitoring indicates that the burrow is no longer in use by owls, the disturbance-free buffer may be removed.

Implementation of the mitigation measure described above would ensure potential risks to burrowing owls remain at a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Townsend's Big-eared Bat, Pallid Bat, and other Roosting Bats

Individuals of the Townsend's big-eared bat, pallid bat, and California myotis species have been recorded using an abandoned barn on the project site as a night roost. While implementation of the project would result in the loss of foraging and night-roost habitats, this loss would not be considered a significant impact because such small numbers of roosting bats use the project site and no maternity colonies have been recorded on-site.

Construction activities, however, could impact bats that do day-roost on the project site. Individual bats could be physically injured or killed, subjected to physiological stress from disturbance, or face predation as a result of daylight exposure. Though no day-roosting activities were recorded and the likelihood of these impacts is low, loss of individual Townsend's big-eared or pallid bats would constitute a significant impact.

Impact BIO-3: The project could impact roosting bats during construction.

Mitigation Measures: The project applicant shall implement the following mitigation measures to ensure that potential impacts to roosting bats remain at a less than significant level.

MM BIO-3.1: A pre-activity survey for day-roosting bats shall be conducted prior to the onset of demolition of existing buildings or ground-disturbing activities within 100 feet of existing buildings. A qualified biologist will conduct a survey for evidence of bat use within suitable habitat. If evidence of use is observed, but the biologist is unable to determine whether or not the roost is occupied at that time, a dusk acoustic survey may be necessary to determine if bats are present and to identify the specific location of any bat colony. If no active bat day roost is located, no further measures are necessary. The report indicating the result of the survey shall be submitted to the satisfaction of the Development Services Director or Director's designee prior to initiation of construction activities (demolition or ground-disturbing activities).

If an active day roost is located during the maternity season (March 15 to July 31), the biologist will attempt to determine whether the roost is occupied by nonbreeding bats (e.g., a bachelor roost consisting of males) or whether the roots is occupied by females with young. If females with young are present, a disturbance-free buffer zone (determined by a qualified bat biologist) shall be implemented until July 31, or until the young are able to fly independently (whichever occurs first).

If a non-maternity roost is present during the maternity season, or during the nonmaternity season, the individuals shall be safely evicted between August 1 and October 15 or between February 15 and March 16 under the supervision of, and following eviction methods developed by, a qualified biologist. Demolition or construction can begin after the bats have been evicted.

Implementation of the mitigation measure described above would ensure potential risks to roosting bats remain at a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

California Red-legged Frog, California Tiger Salamander, Western Pond Turtle, and Bullfrogs

Three Habitat-Plan covered species (the California red-legged frog, California tiger salamander, and western pond turtle) have a very low potential to occur on the project site, though it is possible individuals of these species could take refuge in small mammal burrows on the site. These species are assessed together because they are expected to occur on-site in very low numbers, if at all.

Though the site provides low-quality habitat and is not important for the maintenance of any population of these species, project construction activities could result in the loss of small numbers of individuals. Any loss of individuals of these species would be considered a significant impact. Compliance with Habitat Plan conditions, discussed under checklist question f) below, would reduce impacts to less than significant levels.

The proposed project includes plans for a 0.5-acre pond. The pond would not provide high-quality habitat to support large numbers of nonnative bullfrogs because it is small in size, lined with concrete, and filled with continually recirculating water. Therefore, the proposed project would not impact native reptiles and amphibians by supporting large populations of bullfrogs.

Monarch Butterfly

The monarch butterfly occurs in the project region primarily as a migrant. The project site is not a known current or historical overwintering sites; therefore, large populations of the monarch butterfly are not expected to occur on the site. However, several narrow-leaf milkweed plants were observed on-site and could potentially be used by monarchs for breeding. Adults may lay their eggs on those plants, and larvae would eat the milkweed plants while maturing. Breeding could potentially occur from March through October.

If monarch butterfly eggs, larvae, or pupae were present on the project site, construction activities could impact this species, which would constitute a significant impact.

Impact BIO-4: The project could impact monarch butterfly eggs, larvae, or pupae during construction.

Mitigation Measures: The project applicant shall implement the following mitigation measures prior to and during construction to determine whether monarch butterfly eggs, larvae, or pupae are present, and ensure potential impacts remain at a less than significant level.

MM BIO-4.1: In the San Francisco Bay area, monarch butterflies may begin laying eggs as early as March, and the last generation of the year hatches in September and October. Therefore, if milkweed plants are impacted from November through February, they are not expected to support eggs, larvae, or pupae, and no measures are necessary for project activities during the period November 1 through the end of February.

Prior to disturbance of any vegetated habitat that could support milkweed during the period March 1 through October 31, surveys shall be performed for the species' larval host plants. This survey shall occur within 2 weeks prior to the start of construction. A qualified biologist will survey the project impact areas, as well as surrounding areas within 50 feet (to the extent access allows), to identify any larval host plants. Any detected host plants shall be checked for eggs, larvae, or pupae. If no host plants are detected, or if no monarch eggs, larvae, or pupae are detected on those plants, no further action will be necessary. The report indicating the result of the survey shall be submitted to the satisfaction of the Development Services Director or Director's designee prior to initiation of construction activities.

If monarch eggs, larvae, or pupae are detected, one of the following measures will be implemented:

- They will be protected by establishing a buffer zone around individual plants or populations. The buffer zone will be determined by a qualified biologist to avoid direct and indirect impacts (such as dust mobilization onto plants) on the monarchs and the plants on which eggs, larvae, or pupae occur. Project personnel and equipment shall not operate within such areas. All avoided larval host plants shall be clearly marked in the field with fencing or flagging. The buffer zone shall remain in place until monarchs are no longer present on those plants.
- If larvae are detected within the survey area and impacts to the plants supporting those individuals cannot be delayed until the emergence of individual butterflies as adults, a qualified biologist may relocate larvae to milkweed plants more than 50 feet outside the impact area, if those milkweeds are not already occupied by monarch eggs or larvae. Alternatively, raising monarch butterflies in captivity is feasible, and eggs, larvae, or pupae that cannot be avoided could be raised to maturity in captivity and then released into habitat having suitable nectar sources. Only a qualified biologist shall handle or raise monarchs. If the monarch butterfly is listed (e.g., under FESA) prior to implementation of these measures, appropriate approval from the USFWS would be necessary to handle or relocate monarchs, or to raise them in captivity.

With implementation of mitigation measure MM BIO-4.1 listed above, potential impacts to monarch butterflies would remain at less than significant levels. Compliance with Habitat Plan conditions, discussed under checklist question f) below, would further reduce impacts to monarch butterflies. **(Less than Significant Impact with Mitigation Incorporated)**

Loggerhead Shrike and White-Tailed Kite

The loggerhead shrike could potentially nest in shrubs and small trees within and adjacent to the project site, and individuals may forage in surrounding open habitats year-round. The white-tailed kite could nest in trees in and surrounding the project site, and individuals may forage in habitats in and near the project site year-round. These two species are assessed together because any potential impacts would be similar.

No individuals of these species were observed during site surveys conducted for this project; however, both species have been observed in the past. Thus, there is potential for these species to occur on-site. It is likely that no more than one pair of each species could potentially nest within or adjacent to the site.

Construction activities would lead to a temporary impact due to increased noise levels and ground disturbance, and implementation of the project would lead to a permanent loss of nesting and foraging habitat. Because the number of nesting pairs of each species that could be disturbed is very small and because the project site does not provide high-quality habitat, impacts would be considered less than significant. Additionally, these species would be protected during nesting by the pre-construction surveys called for in MM BIO-1.1, MM BIO-2.1, and MM BIO-3.1.

Compliance with Habitat Plan conditions, discussed under checklist question f) below, would further reduce impacts to loggerhead shrike and white-tailed kites. **(Less than Significant Impact with Mitigation Incorporated)**

Crotch's Bumble Bee

Crotch's bumble bee is not known to occur on the project site. The nearest known recent occurrence is from an area approximately 2.7 miles from the site. Due to the frequent disking of the site and lack of grassland supporting high-quality nectar and pollen sources, Crotch's bumble bee is not expected to be present on the site regularly or in numbers. However, because the species can nest in small mammal burrows (which are present on the project site) and use a variety of flowering plants as nectar and pollen sources, it has the potential to occur on-site in small numbers. Project activities, such as heavy equipment use and grading during construction, could impact Crotch's bumble bee through a loss of habitat.

The Crotch's bumble bee is not a covered species under the Habitat Plan. However, the Crotch's bumble bee will benefit from the Habitat Plan conservation program (i.e., the preservation, enhancement, and management of numerous habitat types throughout the Habitat Plan Reserve System) to which the project applicant would contribute via payment of Habitat Plan impact fees, as both existing reserves and future acquisitions likely support Crotch's bumble bee, given the locations of recent occurrences in Santa Clara County. Therefore, the potential loss of small numbers of individual Crotch's bumble bees as a result of the project, as well as the permanent loss of potential nesting and foraging habitat, would not be considered a significant impact. **(Less than Significant Impact)**

Special-Status Plants

As discussed in Section 4.4.1.2 Existing Conditions, the project site does not contain suitable habitat for special-status plants. Thus, the project would have no impacts on special-status plant species. **(No Impact)**

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

Impacts on Riparian Habitat or Other Sensitive Communities

Implementation of the proposed project would result in the conversion of an existing un-named ephemeral stream to an underground storm drain. This stream currently transports flows from Jackson Park and ends at an existing storm drain where the flow continues across the project site and ends in a bioretention basin. Piping of this channel would result in permanent impacts to 0.05-acre of mixed riparian forest and woodland, and 0.02-acre of riverine (ephemeral stream) habitat.

Further, the project proposes to realign a portion of Tennant Creek to straighten the water course flowing southward into the Barrett Avenue culvert. This would temporarily impact 0.03-acre of riverine habitat and 0.05-acre of mixed riparian forest and woodland. These impacts are considered temporary because the plant species that currently exist in this portion of the creek are ruderal and would reestablish in the new creek alignment within one year. The Barrett Avenue culvert would be improved concurrently with the improvements proposed to the surface of Barrett Avenue as it is widened. The widening of Barrett Avenue within the 35-foot riparian buffer is not considered an encroachment because culvert improvement is a water-dependent activity.

The portion of Tennant Creek immediately south of Barrett Avenue and off the project site contains mixed riparian forest and woodland from the top of bank down to the toe of slope. Low quality seasonal wetlands occur below the toe of the riprap slope that contains the existing culvert. The wetlands support sparse non-native plant species such as Himalayan blackberry and non-native forbs. This culvert is proposed to be improved during project construction, resulting in permanent impacts to 0.01-acre of seasonal wetlands and 0.01-acre of mixed riparian forest and woodland.

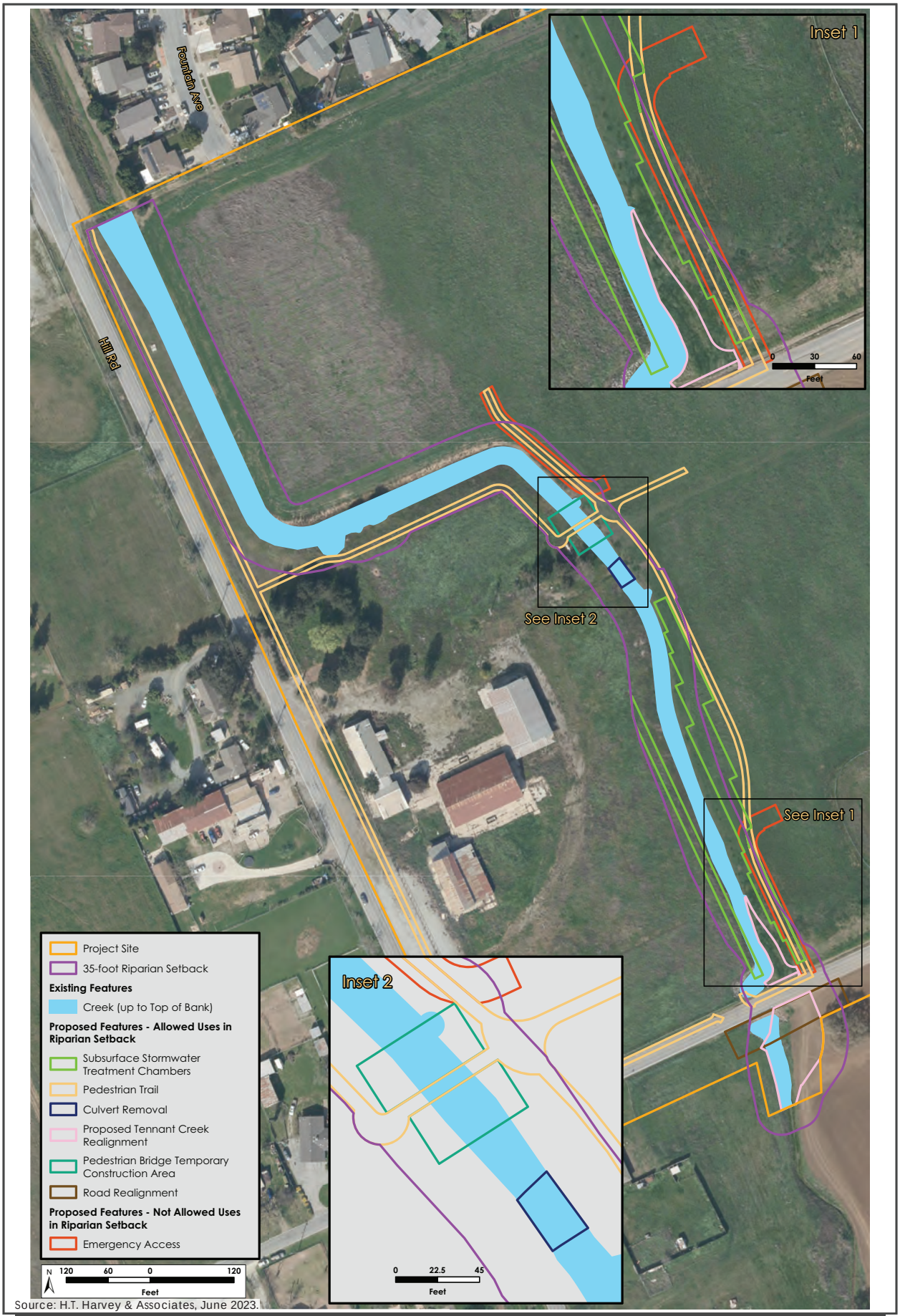
Potential impacts to riparian habitat would be minimized through implementation of Habitat Conditions 3 and 4, which require implementation of design phase, construction phase, and post-construction phase measures, including programmatic BMPs, performance standards, and control measures, to minimize increases of peak discharge of storm drain water and to reduce runoff of pollutants to protect water quality. By complying with the standards required for new development within this Planned Development listed in the discussion in Impact BIO-1, the project would implement these construction-period BMPs and post-construction stormwater requirements and would result in less than significant impacts. **(Less than Significant Impact)**

Impacts Due to Riparian Encroachment

Habitat Plan Condition 11 includes measures to limit development and protect sensitive riparian resources. According to the Habitat Plan, the standard required setback for Tennant Creek is 35 feet from the top of the bank or from the riparian edge, whichever is greater. Development of new buildings and roads should be setback 35 feet from the riparian corridor. Project implementation would result in a total of 0.57-acre of permanent impacts and 0.46-acre of temporary impacts within the 35-foot setback along Tennant Creek and the unnamed ephemeral stream, as shown on Figures 4.4-2 and Figure 4.4-3.

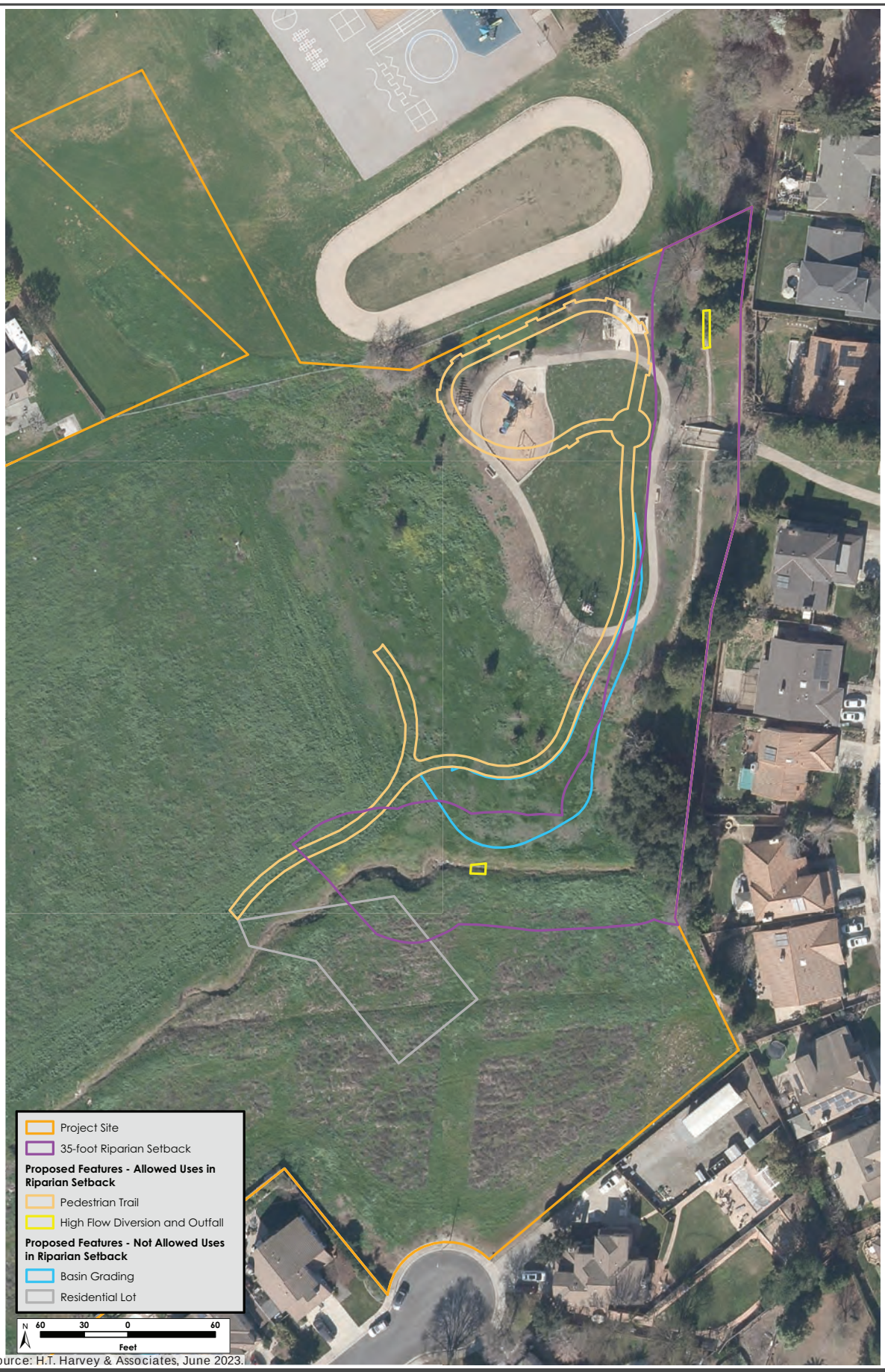
Of these impacts to the setback, 0.39-acre of permanent impacts and 0.46-acre of temporary impacts would result from pedestrian trails and their construction area, stream realignment, Barrett Avenue widening, removal of the existing culvert, and the subsurface stormwater treatment chambers. These impacts are allowable uses in Habitat Plan riparian setbacks and would not require a riparian exception. The remaining 0.18-acre of permanent impacts within the riparian setback would result from 0.10-acre encroachment from the emergency access road, 0.02-acre encroachment from a portion of a residential lot, and 0.06-acre grading for a detention basin, which are not allowed uses within the setbacks, and would therefore be considered a riparian setback encroachment.

The applicant will obtain a riparian setback exception from the Habitat Plan and City of Morgan Hill during the Habitat Plan application process and City approval process for all non-exempt project features, including the residential lot, emergency access road, and detention basin grading within the 35-foot riparian setback. Encroachment into the riparian buffer (i.e., development within the buffer) would represent a significant impact because of the ecological value of Tennant Creek and the degradation to the value that would occur due to encroachment.



Source: H.T. Harvey & Associates, June 2023.

RIPARIAN ENCROACHMENT – TENNANT CREEK | FIGURE 4.4-2



Source: H.T. Harvey & Associates, June 2023.

RIPARIAN ENCROACHMENT – EPHEMERAL STREAM | FIGURE 4.4-3

Impact BIO-5: The project would result in riparian encroachment that would constitute a significant impact.

Mitigation Measures: Prior to the start of grading on site, the project applicant shall implement the following mitigation measures to reduce potential impacts resulting from riparian encroachment.

MM BIO-5.1: Compensate for new urban development within setback. The project will introduce 0.18-acre of new urban development encroaching into the riparian setback. To compensate for this degradation of setback functions in the area, the project shall restore native riparian habitat at a 2:1 (restored area to impacted area) ratio, on an acreage basis, within other planned open space areas in the riparian setbacks. Native herbaceous plant species appropriate to the local area such as deergrass and narrow leaf milkweed shall be planted within the creek bottom and slopes. Native trees and shrubs appropriate to the local area such as coast live oak and coyote brush shall be planted and maintained to provide additional wildlife habitat adjacent to Tennant Creek. Coordinate with Valley Water to determine whether any woody vegetation can be planted within the banks of the creek or whether it would need to be installed above the top of bank, in order to ensure flood flows are not impeded by vegetation in the channel. A qualified restoration ecologist shall develop a riparian setback enhancement and monitoring plan, which will contain the following components:

- Goal of the restoration to achieve no net loss of habitat functions and values;
- Restoration design (planting plan, soil amendments and other site preparation elements as appropriate, maintenance plan, and remedial measures/adaptive management);
- Monitoring plan (including final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc.). At a minimum, success criteria will include elimination of non-native woody species from within the enhancement area and establishment of native trees and shrubs; and
- Contingency plan for mitigation elements that do not meet performance or final success criteria.

The plan shall be approved by the City of Morgan Hill and the Santa Clara Valley Habitat Agency prior to initiation of impacts to currently undeveloped habitat within the riparian setback.

With implementation of MM BIO-5.1, the project would reduce impacts resulting from riparian encroachment to less than significant levels. **(Less than Significant Impact with Mitigation Incorporated)**

c) Would the project have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means?

Wetlands and other waters of the U.S. and waters of the state are present within Tennant Creek and the ephemeral drainage in the northeastern part of the project area. Jurisdictional wetlands located south of Barrett Avenue are supported by urban runoff from nearby storm drains. Approximately 0.02-acre of these low-quality jurisdictional wetlands would be permanently impacted during the project's proposed realignment of Tennant Creek and the improvement of Barrett Avenue.

The project would comply with HCP conditions 3 and 4, which require implementation of design phase, construction phase, and post-construction phase measures, including programmatic BMPs, performance standards, and control measures to minimize increases of peak discharge of storm drain water and to reduce runoff of pollutants to protect water quality. The project would also implement construction period BMPs and post-construction storm water requirements. The project will also pay Habitat Plan impact fees for impacts to wetlands and streams. With compliance of Habitat Plan Conditions 3 and 4, and payment of applicable fees, impacts would be less than significant. **(Less than Significant Impact)**

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

As discussed in Section 4.4.1.2 Existing Conditions, biologically significant wildlife movement is absent from the project site. Thus, the proposed project would have no impact on wildlife movement. **(No Impact)**

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Implementation of the proposed project would result in the removal of 32 trees, 27 of which are ordinance-size. Eighteen of the ordinance-size trees are native. The removal of ordinance-sized trees would conflict with the City's Municipal Code. In accordance with the provisions of the Municipal Code, the project would submit permit applications for tree removal and would implement the following standard required for new development within this Planned Development.

Required for New Development within this Planned Development: The project shall implement the following standard permit condition in accordance with the City's tree protection requirements and tree removal permit.

- Tree Protection. Unless tree removal has been previously approved, all trees located within 25 feet of any site disturbance shall be protected using the following minimum protection measures (these guidelines shall be included with all site development plans):
    - Mark all trees to be saved with a survey flag or ribbon. Do not nail or staple directly to the tree.
    - Erect a temporary fence enclosing an area equal to at least the dripline of the tree (or as far from the trunk as possible). This tree protection zone shall not be used for parking, storage of building materials, or other equipment or the placement of temporary or permanent fill. Signs should be posted identifying the restriction of uses in the tree protection zone.
    - Locate structures, grade changes, and other ground or surface disturbances (e.g. concrete pours) as far as feasible from the "dripline" area of the tree.
    - Avoid root damage through grading, trenching, and compaction, at least within an area 1.5 times the dripline area of the tree. Where root damage cannot be avoided, roots encountered over 1 inch in diameter should be exposed approximately 12 inches beyond the area to be disturbed (towards the tree stem), by hand excavation, or with specialized hydraulic or pneumatic equipment, cut cleanly with hand pruners or power saw and immediately back-filled with soil. Avoid tearing or otherwise disturbing that portion of the roots to remain.
    - The addition of plants or other landscaping materials shall remain outside of the dripline of all trees.
    - All trees proposed to be removed from the project site shall be replaced at a 1:1 ratio. Replacement trees shall be consistent with the City of Morgan Hill Master Street Tree. All replacement trees shall be a minimum of 15-gallons in size. All mitigation/replacement trees shall be shown on the landscape plans and approved by the Development Services Director prior to the issuance of the building/grading permit.
    - Any tree subject to Chapter 12.32 Restrictions On Removal Of Significant Trees of the Morgan Hill Municipal Code requires approval from the Planning Division. The applicant shall request approval prior to removing any significant trees.

By complying with the standards described above, the proposed project would not conflict with the City's tree preservation policies. **(Less than Significant Impact)**

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

As discussed in Section 4.4.1.2 Existing Conditions, the proposed project is a covered project under the Habitat Plan and is therefore required to comply with all applicable conditions. The project would implement the standards required for new development within this Planned Development below.

Standards Required for New Development within this Planned Development: The project would comply with applicable Habitat Plan conditions and fees prior to issuance of any grading permits. The project applicant shall submit the Santa Clara Valley Habitat Plan Coverage Screening Form to the Development Services Director or the Director's designee for approval and payment of applicable fees prior to the issuance of a grading permit. The Habitat Plan and supporting materials can be viewed at www.scv-habitatagency.org. Habitat Plan conditions applicable to the project include:

- Condition 1. Avoid direct impacts on legally protected plant and wildlife species.
- Condition 3. Maintain hydrologic conditions and protect water quality.
- Condition 4. Avoidance and minimization for in-stream projects.
- Condition 11. Stream and riparian setbacks.
- Condition 17. Tricolored blackbird.

The proposed project would apply with all applicable conditions as required for new development within this Planned Development. Furthermore, the project would implement the required Habitat conditions listed above, which would ensure compliance with the Habitat Plan by requiring the project applicant to pay nitrogen deposition fees for new vehicle trips. These fees would offset impacts by allowing for the purchase and management of conservation land for the Bay Checkerspot butterfly and other sensitive species. **(Less than Significant Impact)**

4.4.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a significant cumulative biological resources impact?

The geographic area for cumulative biological resources impacts is the project site. As described above, the project has the potential to impact nesting birds, several special-status species, and riparian habitat. The project would implement mitigation measures and Conditions of Approval to reduce impacts to less than significant levels.

Other cumulative projects in the City would be required to undergo site-specific analyses for their potential to adversely affect sensitive natural communities, habitats, and special-status plant and

animal species. If potential impacts are identified, mitigation measures would be incorporated into individual projects (as with the proposed project) to reduce impacts to a less than significant level. Cumulative projects would also be required to adhere to the City of Morgan Hill Municipal Code Section 12.32 for tree removal and replacement, as well as applicable Habitat Plan conditions. Payment of Habitat Plan nitrogen deposition fees ensures that cumulative effects of nitrogen deposition are offset.

The cumulative projects would not result in significant cumulative biological resources impacts. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

4.5 Cultural Resources

The following discussion is based, in part, on an Archaeological Resources Assessment Report prepared by Basin Research Associates dated January 2021 and an Architectural Survey Report prepared by Ward Hill dated November 2020. The Archaeological Resources Assessment Report is on-file with the City of Morgan Hill due to potentially sensitive information. A copy of the Architectural DPR form is attached to this EIR as Appendix E.

4.5.1 Environmental Setting

4.5.1.1 *Regulatory Framework*

Federal and State

National Historic Preservation Act

Federal protection is legislated by the National Historic Preservation Act of 1966 (NHPA) and the Archaeological Resource Protection Act of 1979. These laws maintain processes for determination of the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA and related regulations (36 Code of Federal Regulations [CFR] Part 800) constitute the primary federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed or eligible for listing in the NRHP. Impacts to properties listed in the NRHP must be evaluated under CEQA.

California Register of Historical Resources

The California Register of Historical Resources (CRHR) is administered by the State Office of Historic Preservation and encourages protection of resources of architectural, historical, archeological, and cultural significance. The CRHR identifies historic resources for state and local planning purposes and affords protections under CEQA. Under Public Resources Code Section 5024.1(c), a resource may be eligible for listing in the CRHR if it meets any of the NRHP criteria.[22]

Historical resources eligible for listing in the CRHR must meet the significance criteria described previously and retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

The concept of integrity is essential to identifying the important physical characteristics of historical resources and, therefore, in evaluating adverse changes to them. Integrity is defined as "the authenticity of a historical resource's physical identity evidenced by the survival of characteristics

[22] California Office of Historic Preservation. "CEQA Guidelines Section 15064.5(a)(3) and California Office of Historic Preservation Technical Assistance Series #6." Accessed June 8, 2021. http://www.ohp.parks.ca.gov/pages/1069/files/technical%20assistance%20bulletin%206%202011%20update.pdf.

that existed during the resource's period of significance." The processes of determining integrity are similar for both the CRHR and NRHP and use the same seven variables or aspects to define integrity that are used to evaluate a resource's eligibility for listing. These seven characteristics include 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease and the county coroner be notified.

Public Resources Code Sections 5097 and 5097.98

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These procedures are outlined in Public Resources Code Sections 5097 and 5097.98. These codes protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the county coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are of a Native American, the county coroner must notify the NAHC. The NAHC then notifies those persons most likely to be related to the Native American remains. The code section also stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

Regional and Local

Santa Clara County Heritage Resource Inventory

The Santa Clara County Heritage Resource Inventory compiles historical landmarks throughout the County and sets forth guidelines for their treatment and evaluation. Properties listed in the inventory located on unincorporated property are subject to a demolition review process by the Historical Heritage Commission (HHC) and the Board of Supervisors. The Heritage Resource Inventory was last updated in 2012.[23]

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts to cultural resources. The following policies are applicable to the proposed project.

[23] County of Santa Clara – Department of Planning and Development. *Historic Context Statement.* December 2004. Revised February 2012.

Morgan Hill 2035 General Plan Policies: Cultural Resources

Policy	Description
HC-8.1	**Identify and Protect Resources.** Identify and protect heritage resources from loss and destruction. (South County Joint Area Plan 15.09)
HC-8.2	**Historic Structures.** Encourage the preservation and rehabilitation of the City's historic structures.
HC-8.3	**Demolition.** Prior to approving demolition or alteration of historically significant buildings, evaluate alternatives, including structural preservation, relocation, or other mitigation, and demonstrate that financing has been secured for replacement use.
HC-8.4	**Tribal Consultation.** Consult with Native American tribes that have ancestral ties to Morgan Hill regarding proposed new development projects and land use policy changes.
HC-8.5	**Mitigation.** Require that if cultural resources, including tribal, archaeological, or paleontological resources, are uncovered during grading or other on-site excavation activities, construction shall stop until appropriate mitigation is implemented.

Morgan Hill Historic Context Statement

The City's Historic Context Statement creates a framework against which to objectively qualify a property's significance in relation to larger historic themes and events. The Historic Context Statement includes a historical inventory and historical maps which recognize existing historic resources in the City. Historical evaluation of a subject property should use the context statement as a tool for understanding where a property's significance lies within the City's historical timeline. The City determines historical significance and eligibility for inclusion in the historical inventory based on the California Register criteria.[24]

4.5.1.2 *Existing Conditions*

According to the NHPA's Section 106 regulations, a project's Area of Potential Effect (APE) is the geographic area where a project may directly or indirectly cause changes to the character or use of cultural resources. The horizontal APE for the project consists of the entire construction footprint (i.e., the 70-acre project site). The vertical APE is approximately 10 feet below-grade, since that is the maximum depth anticipated for ground-disturbing construction activities (e.g., excavation and installation of subsurface infrastructure).

A prehistoric and historic records and literature search for the project's APE with a 0.25-mile radius was completed by the California Historical Resources Information System (CHRIS), Northwest Information Center in August 2020 on behalf of Basin Research Associates. An archaeological survey of the APE was conducted by Basin in August 2020. Additionally, the NAHC was contacted for a review of the Sacred Lands Inventory. Letters were sent to the six Native American individuals/organizations identified by the NAHC. The City received a request for consultation from the Tamien Nation tribe on September 16, 2021, and met with the tribal representative on October 11, 2021.No known archaeological or tribal cultural resources were identified at the site by Tamien Nation. As a result of the October 2021 consultation, the tribe provided mitigation measures to be

[24] City of Morgan Hill. Municipal Code Chapter 18.60 – Historic Resources.

implemented by development projects in the City to reduce impacts to undiscovered archaeological and tribal cultural resources as a result of this consultation (refer to Cultural Resources Section 4.5.2, Impact Discussion, checklist question b).

Archaeological Resources

Prehistoric Period

Archaeological resources are traces of human occupation and activity. The first inhabitants to the Morgan Hill area arrived approximately 10,000 years ago, shortly after the Ice Age. Human settlements were typically selected for accessibility, protection from seasonal flooding, and the availability of resources and fresh water. Archaeological sites in the southern Santa Clara Valley include habitation sites ranging from villages to temporary campsites, stone tool and other manufacturing areas, quarries for tool stone procurement, cemeteries usually associated with large villages, isolated burial sites, rock art locations, bedrock mortars or other milling feature sites and trails.

The aboriginal inhabitants of the Santa Clara Valley region, the Costanoan (Ohlone), occupied the central California coast as far east as the Diablo Range. The project site appears to have been within either the Mutsun or Matalan territory of the Ohlone; however, no known villages were located in or within the vicinity of the project site. A major prehistoric trail is mapped as having passed through the general study area.

No prehistoric sites are located on the project site or within 0.25 mile. Five archaeological studies have been completed in or adjacent to the project site, with an additional three studies having been conducted within 0.25 mile. None of these studies identified any archaeological resources. Additionally, the field survey conducted by Basin did not discover any subsurface indications of prehistoric or historic archaeological materials or culturally modified sediments. Basin concluded that the project site has a low-to-moderate sensitivity for prehistoric and historic archaeological resources.

Historic Period

The history of the project area can be divided into the Spanish and Mexican Period (1769 to 1848) and the American Period (1848 onward).

Early Spanish expeditions in central California followed existing Native American trails. Various exploration parties passing through the general study area in 1770, 1772, 1774, 1776, and 1795. Under the Spanish, all land was controlled by either the missions or the pueblos. After Mexico seceded from Spain in 1822, land grants to private citizens increased significantly, especially following the 1833 act of the Mexican legislature ordering the secularization of the missions. The proposed project is within the Ojo de Agua de la Coche, a rancho granted by Governor Figueroa to Juan Maria Hernandez in 1835. No Spanish and Mexican Period adobe dwellings, other structures, or roads have been reported in, adjacent, or near the proposed project site.

In 1848, California became a United States territory with the signing of the Treaty of Guadalupe Hidalgo that ended the war between the United States and Mexico. Martin J.C. Murphy, a grandson of pioneer Martin Murphy, Sr., received the patent to the Ojo de Agua de la Coche rancho in 1860. The rancho was ultimately inherited by Hiram Morgan Hill, and by 1896, the lands surrounding the rancho was known as the Town of Morgan Hill. As early as 1893, these lands had a post office and by 1896 it had an extensive list of civic amenities and businesses including a church, two hotels, an express office and a passenger and freight depot, a telephone station, a restaurant, three livery stables, a lumberyard, several small shops, and a number of residences.

Historic Resources on the Project Site

The 69.4-acre property is located on the northeast corner of Barrett Avenue and Hill Road in an area of Morgan Hill east of Highway 101 that is developed with both residential subdivisions and agricultural land. The site is flat and developed with a complex of sheds and structures that are the remnants of a small dairy farm that was operated by the Escobar family between the early 1950s to late 1970s.

Based on a review of historic maps and aerials conducted by Basin, the project site appears to have been undeveloped until a hay barn was constructed in 1930. Louis and Dorothy Escobar purchased the land in March 1951. A dairy milking barn was subsequently constructed circa 1952, which was followed by a milk shed and milk house cooling building circa 1960, and finally a feed structure that was constructed circa 1971. With construction of the feed structure, the Escobar Dairy Ranch reached its peak just as the wholesale price of milk began dropping. In the mid-1970s, Dorothy began working at the Carrousel Shop, a retail shop in Morgan Hill. The dairy closed in the late 1970s. The Escobar family retired and continued to live at 1721 Munro Court, their home in Morgan Hill. Louis Escobar, who was born in Portugal and came to California when he was four years old, died in December 1985. Dorothy Elizabeth Escobar was born in 1922 and passed away in April 2006.

These buildings are discussed in greater detail below.

Hay Barn

The hay barn is a wood frame structure with a gable roof covered in corrugated metal sheets. The south end has a large opening in the vertical board siding. The vertical board siding on the other sides have severely deteriorated, with broken boards and openings in the walls. A wood frame shed with a slanted roof covered in corrugated metal sheets is attached to the east side of the structure.

Dairy Milking Barn

The dairy milking barn is a concrete block structure with a gable roof covered in corrugated metal sheets. Openings designed to allow cows to enter are present. The upper half of the walls are open, and the lower portion of the walls have horizontal board siding on the east and west sides. The interior contains slatted wood feed cribs. The building is in extremely poor condition, with evidence of damage to the interior structure.

Milk Shed

The milk shed is constructed of concrete block with a concrete floor and a wood frame roof that is covered with corrugated sheet metal that is rusted and lifting along the edges of the pieces. Square windows are evenly spaced along both side walls. The floor is stepped to allow cows to be washed and milked, and for dairy workers to walk above the water. Drains in the floor run the length of the building. All milking-related and other types of equipment have been removed.

Milk House Cooling Building

The milk house cooling building is a rectangular structure with concrete block walls and a gable roof. There are a number of openings in the walls. A single sliding door is located on one side of the structure. The inside of the building has been extensively vandalized.

Feed Structure

The feed structure is made of wood and has a roof that is covered with corrugated sheet metal. The base of the feed structure is made of concrete. The building sides have slats where cows could insert their heads and have a portioned amount of feed available. The structure has feeding stalls on both sides and an open center where the feed was stored.

Historic Resources in the Vicinity of the Project Site

There are no historic resources in the vicinity of the project site.

4.5.2 Impact Discussion

For the purpose of determining the significance of the project's impact on cultural resources, would the project:

1) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?
3) Disturb any human remains, including those interred outside of dedicated cemeteries?

4.5.2.1 *Project Impacts*

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?

The project proposes to demolish the existing structures on-site described in Section 4.5.1.2 Existing Conditions, subdivide the project site into 283 parcels, and construct 364 single-family residential units. None of the buildings on-site are listed on the National Park Service's National Register of

Historic Places, the California Office of Historic Preservation's California Register of Historical Resources and Historical Landmarks, the Santa Clara County Historic Resources Inventory, or the Morgan Hill Historic Context Statement.[25]

In order to be considered historically significant, the existing buildings on-site would need to meet one of the following criteria, and retain their integrity of 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
- It is associated with the lives of persons important to local, California, or national history; or
- It embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values; or
- It has yielded, or is likely to yield, information important to prehistory or history of the local area, California, or the nation.

Since the commercial dairy business was not one of the primary agricultural factors in the growth of Morgan Hill and the Escobar Dairy did not make a significant contribution to the broad patterns of agricultural history in Morgan Hill, the existing buildings are not associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States. For these same reasons, these buildings are not associated with the lives of persons important to local, California, or national history. As described under Section 4.5.1.2 Existing Conditions, the existing buildings are severely deteriorated, and are of basic utilitarian design which are not the work of a master designer and do not represent high artistic values. As such, these buildings do not embody the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values. Finally, the buildings are of common construction or material, and as discussed under Section 4.5.1.2, are not associated with any important prehistory or history. Therefore, the buildings do not hold the potential to yield information important to the prehistory or history of the local area, California, or the nation.

Accordingly, the existing buildings on-site cannot be considered historically significant under CEQA Guidelines Section 15064.5, and the demolition of these buildings by the project would not cause a substantial adverse change in the significance of a historical resource. Additionally, there are no historic resources in the vicinity of the project site that could be impacted directly or indirectly by the project. **(Less than Significant Impact)**

[25] City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report*. May 2016.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

As discussed under Section 4.5.1.2 Existing Conditions, the project site does not contain any known archaeological resources, and the project site has a low-to-moderate sensitivity for prehistoric and historic archaeological resources. Nonetheless, the ground-disturbing construction activities, specifically the excavation and installation of subsurface infrastructure, could result in significant impacts if any unknown subsurface archaeological resources are encountered. Compliance and adherence to the mitigation measures described below (including measures suggested by Tamien Nation) would reduce potential impacts to archaeological resources to less than significant levels.

Impact CUL-1: Ground-disturbing construction activities could result in impacts to archaeological resources.

Mitigation Measures: The following mitigation measures would be implemented during project demolition, grading, and construction activities to avoid impacts to unknown subsurface archaeological resources.

MM CUL-1.1: A moderate potential exists for unrecorded historic-period archaeological resources to be within the project area. The developer shall enter into written contracts with an archaeologist and the Tamien Nation Tribe, and pay all fees associated with the activities required by this condition. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply:

a) Prior to start of grading or earthmoving activity on the "first day of construction", the archaeologist and Tamien Nation Tribal Monitor shall hold a pre-construction meeting for the purposes of "cultural sensitivity training" with the general contractor and subcontractors.

b) A Tamien Nation Tribal Monitor shall be present on-site to monitor all ground-disturbing activities and an archaeologist shall be on-call. If the site is large and the area being disturbed cannot be monitored all at the same time by one person, then more monitors shall be required. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below:

1. Work at the location of the find shall halt immediately within 50 feet of the find. If an archaeologist is not present at the time of the discovery, the applicant shall contact an archaeologist for evaluation of the find to determine

whether it qualifies as a unique archaeological resource as defined by this chapter;

2. If the find is determined not to be a Unique Archaeological Resource, construction can continue. The archaeologist shall prepare a brief informal memo/letter in collaboration with a tribal representative that describes and assesses the significance of the resource, including a discussion of the methods used to determine significance for the find;
3. If the find appears significant and to qualify as a unique archaeological resource, the archaeologist shall determine if the resource can be avoided and shall detail avoidance procedures in a formal memo/letter; and
4. If the resource cannot be avoided, the archaeologist in collaboration with a tribal representative shall develop within forty-eight hours an action plan to avoid or minimize impacts. The field crew shall not proceed until the action plan is approved by the Development Services Director. The action plan shall be in conformance with California Public Resources Code 21083.2. An archaeologist shall be on-call during ground disturbing activities. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below.

c) The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply. If human remains are discovered, it is probable they are the remains of Native Americans.

1. If human remains are encountered, they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need-to-know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs and around artifacts shall be upheld.

2. Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.

3. Surgical mask should also be worn to prevent exposure to pathogens that may be associated with the remains.

d) In the event that known or suspected Native American remains are encountered, or significant historic or archaeological materials are discovered, ground-disturbing activities shall be immediately stopped. Examples of significant historic or archaeological materials include, but are not limited to, concentrations of historic artifacts (e.g., bottles, ceramics) or prehistoric artifacts (chipped chert or obsidian, arrow points, ground stone mortars and pestles), culturally altered ash stained midden soils associated with pre-contact Native American habitation sites, concentrations of fire-altered rock and/or burned or charred organic materials and historic structure remains such as stone lined building foundations, wells or privy pits. Ground-disturbing project activities may continue in other areas that are outside the exclusion zone as defined below.

e) An "exclusion zone" where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the contractor foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time or discovery, by the monitoring archaeologist and tribal representative (typically twenty-five to fifty feet for single burial or archaeological find).

f) The discovery locale shall be secured (e.g., 24-hour surveillance) as directed by the City or County if considered prudent to avoid further disturbances.

g) The contractor foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:
    - The City of Morgan Hill Development Services Director (408) 779-7247
    - The Contractor’s Point(s) of Contact
    - The Coroner of the County of Santa Clara (if human remains found) (408) 793-1900
    - The Native American Heritage Commission (NAHC) in Sacramento (916) 653-4082

- The Amah Mutsun Tribal Band (916) 481-5785 (H) or (916) 743-5833 (C)
- The Tamien Nation (707) 295-4011 (office) and (925) 336-5359 (THPO)

h) The Coroner has two working days to examine the remains after being notified of the discovery. If the remains are Native American, the Coroner has 24 hours to notify the NAHC.

i) The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD). (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.)

j) Within 24 hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose.

k) Within 24 hours of their notification by the NAHC, the MLD may recommend to the City's Development Services Director the recommended means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials. Only those osteological analyses or DNA analyses recommended by the appropriate tribe may be considered and carried out.

l) If the MLD recommendation is rejected by the City of Morgan Hill the parties will attempt to mediate the disagreement with the NAHC. If mediation fails, then the remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

MM CUL-1.2: The project applicant shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources including prehistoric Native American burials. Any archaeological site information supplied to the Contractor Foreman or authorized representative shall be considered confidential. Information on the project plans shall be verified by the City's Development Services Director or Director's designee prior to issuance of a grading permit or any building permit.

In addition, the project would implement the standards required for new development within this Planned Development below as suggested by Tamien Nation.

Standards Required for New Development within this Planned Development: The project shall pay for and install an interpretive panel along the proposed trail.

Implementation of MM CUL-1.1 and MM CUL-1.2 above would ensure that contractors and their employees are alerted to the potential presence of subsurface archaeological resources and trained on how to respond to any potential discoveries, thus ensuring that any unknown subsurface archaeological resources present within the APE would be identified during construction. MM CUL-1.1 and MM CUL-1.2 guarantee that any archaeological resources present within the project site are evaluated by a professional archaeologist and treated in accordance with California Public Resources Code Section 15064.5, as required by CEQA. Therefore, the project would not cause a substantial adverse change in the significance of an archaeological resource. **(Less than Significant Impact with Mitigation Incorporated)**

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Human remains have the potential to be discovered during construction. If human remains were unearthed during project construction, damage to or destruction of culturally significant human remains would be a potentially significant impact. Mitigation measure MM CUL-1.2 described under Impact CUL-1 would allow for timely identification, analysis, and documentation of any human remains, should they be discovered. Compliance with mitigation measure MM CUL-1.2 would ensure that if human remains are discovered during project construction, they are treated in compliance with applicable state laws and an appropriate process is followed prior to the commencement of construction. Therefore, the project would have a less than significant impact on human remains with mitigation incorporated. **(Less than Significant Impact with Mitigation Incorporated)**

4.5.2.2 *Cumulative Impacts*

a) Would the project result in a cumulatively considerable contribution to a significant cumulative cultural resources impact?

The geographic area for cumulative cultural resources impacts is the project site and adjacent parcels. There are no other development projects planned within the vicinity of the project site. The proposed project site may contain unknown historic and/or prehistoric archaeological resources.

Implementation of mitigation measures MM CUL-1.1 and MM CUL-1.2 would reduce impacts to archaeological resources and human remains to less than significant levels. The proposed development area does not contain historic resources; therefore, the project would not result in a cumulative impact to historic resources. For these reasons, the proposed project would not result in significant cumulative impacts to cultural resources. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

4.6 Energy

The following discussion is based, in part, on an Air Quality Analysis prepared for the project by Illingworth & Rodkin, Inc. (I&R) dated June 1, 2023. A copy of this report is included in Appendix B of this EIR.

4.6.1 Environmental Setting

4.6.1.1 *Regulatory Framework*

Federal and State

Energy Star and Fuel Efficiency

At the federal level, energy standards set by the Environmental Protection Agency (EPA) apply to numerous consumer products and appliances (e.g., the EnergyStar™ program). The EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

Renewables Portfolio Standard Program

In 2002, California established its Renewables Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2010. Governor Schwarzenegger issued Executive Order (EO) S-3-05, requiring statewide emissions reductions to 80 percent below 1990 levels by 2050. In 2008, EO S-14-08 was signed into law, requiring retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from renewable sources by 2030. SB 100, passed in 2018, requires 100 percent of electricity in California to be provided by 100 percent renewable and carbon-free sources by 2045.

Executive Order B-55-18 To Achieve Carbon Neutrality

In September 2018, Governor Brown issued an executive order, EO-B-55-18 To Achieve Carbon Neutrality, setting a statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." The executive order requires CARB to "ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal." EO-B-55-18 supplements EO S-3-05 by requiring not only emissions reductions, but also that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2 from the atmosphere through sequestration.

California Building Standards Code

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6 of the California Code of Regulations (Title 24), was established in 1978 in response to a

legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years.[26] Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.[27]

California Green Building Standards Code

CALGreen establishes mandatory green building standards for buildings in California. CALGreen was developed to reduce GHG emissions from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to state environmental directives. CALGreen covers five categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

Advanced Clean Cars Program

CARB adopted the Advanced Clean Cars program in 2012 in coordination with the EPA and National Highway Traffic Safety Administration. The program combines the control of smog-causing pollutants and GHG emissions into a single coordinated set of requirements for vehicle model years 2015 through 2025. The program promotes development of environmentally superior passenger cars and other vehicles, as well as saving the consumer money through fuel savings.[28]

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to conserve energy and mitigate energy impacts resulting from planned developments within the City. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Energy

Policy	Description
NRE-16.1	**Energy Standards for New Development.** New development, including public buildings, should be designed to exceed State standards for the use of energy.
NRE-16.2	**Energy Conservation.** Promote energy conservation techniques and energy efficiency in building design, orientation, and construction.
NRE-16.3	**Energy Use Data and Analysis.** Provide information to increase building owner, tenant, and operator knowledge about how, when, and where building energy is used.

[26] California Building Standards Commission. "California Building Standards Code." Accessed February 10, 2022. https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo.
[27] California Energy Commission (CEC). "2019 Building Energy Efficiency Standards." Accessed February 10, 2022. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency.
[28] California Air Resources Board. "The Advanced Clean Cars Program." Accessed February 10, 2022. https://www.arb.ca.gov/msprog/acc/acc.htm.

Morgan Hill 2035 General Plan Policies: Energy

Policy	Description
NRE-16.5	**Energy Efficiency.** Encourage development project designs that protect and improve air quality and minimize direct and indirect air pollutant emissions by including components that promote energy efficiency.
NRE-16.6	**Landscaping for Energy Conservation.** Encourage landscaping plans for new development to address the planting of trees and shrubs that will provide shade to reduce the need for cooling systems and allow for winter daylighting.
NRE-16.7	**Renewable Energy.** Encourage new and existing development to incorporate renewable energy generation features, like solar panels and solar hot water heaters.

4.6.1.2 *Existing Conditions*

Total energy usage in California was approximately 7,802 trillion British thermal units (Btu) in the year 2019, the most recent year for which this data was available.[29] Out of the 50 states, California is ranked second in total energy consumption and 46th in energy consumption per capita. The breakdown by sector was approximately 19 percent (1,456 trillion Btu) for residential uses, 19 percent (1,468 trillion Btu) for commercial uses, 23 percent (1,805 trillion Btu) for industrial uses, and 39 percent (3,073 trillion Btu) for transportation.[30] This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

Electricity

California's total system electric generation in 2020 was approximately 272,576 GWh (a decrease of 2 percent from 2019).[31] In Santa Clara County, a total of approximately 16,435 gigawatt hours (GWh) of electricity was consumed in 2020.[32] Electricity in Santa Clara County in 2020 was consumed primarily by the non-residential sector (73 percent), followed by the residential sector consuming 27 percent.

The community-owned Silicon Valley Clean Energy (SVCE) is the electricity provider for the City of Morgan Hill.[33] SVCE sources the electricity and the Pacific Gas and Electric Company (PG&E) delivers it to customers over their existing utility lines. Customers are automatically enrolled in the GreenStart plan and can upgrade to the GreenPrime plan. The GreenStart plan is considered 80 percent GHG-emission free and the GreenPrime Plan is considered 100 percent GHG-emission free.

[29] United States Energy Information Administration. "State Profile and Energy Estimates, 2019." Accessed February 10, 2022. https://www.eia.gov/state/?sid=CA#tabs-2.
[30] United States Energy Information Administration. "State Profile and Energy Estimates, 2019." Accessed February 10, 2022. https://www.eia.gov/state/?sid=CA#tabs-2.
[31] California Energy Commission. "2020 Total System Electric Generation, Total System Electric Generation and Methodology." Accessed February 10, 2022. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation#:~:text=Total%20generation%20for%20California%20was,to%2057%20percent%20in%202019.
[32] California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County." Accessed February 10. http://ecdms.energy.ca.gov/elecbycounty.aspx.
[33] Silicon Valley Clean Energy. "Frequently Asked Questions." Accessed February 10, 2022. https://www.svcleanenergy.org/faqs.

Natural Gas

PG&E provides natural gas services within Morgan Hill. In 2019, approximately one percent of California's natural gas supply came from in-state production, while the remaining supply was imported from other western states and Canada.[34] In 2019 residential and commercial customers in California used 33 percent of the state's natural gas, power plants used 26 percent, the industrial sector used 35 percent, and other uses used six percent.[35] Transportation accounted for one percent of natural gas use in California. In 2020, Santa Clara County used approximately 418 million therms of natural gas.[36]

Fuel for Motor Vehicles

In 2019, 15.4 billion gallons of gasoline were sold in California.[37] The average fuel economy for light-duty vehicles (autos, pickups, vans, and sport utility vehicles) in the United States has steadily increased from about 13.1 miles per gallon (mpg) in the mid-1970s to 25.4 mpg in 2020.[38] Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That standard, which originally mandated a national fuel economy standard of 35 miles per gallon by the year 2020, was updated in March 2020 to require all cars and light duty trucks achieve an overall industry average fuel economy of 40.4 mpg by model year 2026.[39,40]

4.6.2 Impact Discussion

For the purpose of determining the significance of the project's impact on energy, would the project:

1) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?
3) Result in a substantial increase in demand upon energy resources in relation to projected

[34] California Gas and Electric Utilities. 2020 *California Gas Report.* Accessed February 10, 2022. https://www.socalgas.com/sites/default/files/2020-10/2020_California_Gas_Report_Joint_Utility_Biennial_Comprehensive_Filing.pdf.
[35] United States Energy Information Administration. "State Profile and Energy Estimates, 2019." Accessed February 10, 2022. https://www.eia.gov/state/?sid=CA#tabs-2.
[36] California Energy Commission. "Natural Gas Consumption by County." Accessed February 10, 2022. http://ecdms.energy.ca.gov/gasbycounty.aspx.
[37] California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons." Accessed February 10, 2022. https://www.cdtfa.ca.gov/dataportal/dataset.htm?url=VehicleTaxableFuelDist.
[38] United States Environmental Protection Agency. "The 2021 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." November 2021. https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1010U68.pdf
[39] United States Department of Energy. *Energy Independence & Security Act of 2007.* Accessed February 10, 2022. http://www.afdc.energy.gov/laws/eisa.
[40] Public Law 110–140—December 19, 2007. *Energy Independence & Security Act of 2007.* Accessed February 10, 2022. http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf.

supplies?

4.6.2.1 *Project Impacts*

a) Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The proposed project would construct single-family residences, parking spaces, and private and public open spaces (including a clubhouse, pond, and swimming pool) on-site. The proposed project would result in increased demand for energy at the project site during construction and operation.

Operational Energy Demand

The construction phase would require energy for the manufacture and transportation of building materials, preparation of the site for grading, and the actual construction of the buildings. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks. Implementation of the proposed development would consume energy (in the form of electricity) during operation, primarily from building heating and cooling, lighting, and water heating. Table 4.6-1 below summarizes the estimated energy use of the proposed project.

As discussed in Section 4.3 Air Quality, the Air Quality and Greenhouse Gas Analysis reflects the project description at the time the analysis was conducted (358 units including condominiums). The proposed project has a net increase of six units (less than two percent increase of the total studied), decrease in total square footage of 108,450 square feet (15 percent decrease of the total studied), and different land use types (from single-family houses and senior condominiums to single-family houses and senior duets) compared to the project initially analyzed in the AQ/GHG Analysis. These changes could result in a change in the estimated annual energy use of the proposed project displayed in Table 4.6-1 below, but would not change the impact findings discussed below. Additionally, the project would implement measures during construction and operation (as described further below) that would ensure efficient energy use.

Table 4.6-1: Estimated Annual Energy Use of Proposed Development

Land Use	Electricity (kWh)	Natural Gas (Btu)	Gasoline (gallons)
Single-Family Units and ADUs	4,550,655	0	433,360
Condominium/Townhouses	540,015	0	30,552
Parking Lot	128,240	0	0
Total	**5,218,910**	**0**	**463,912**

Note: No natural gas use is assumed for the proposed residential development based on the City's Reach Code. The estimated values shown above are reflective of the project description at the time the AQ/GHG analysis was prepared (358 units including condominiums and ADUs).

Source: Illingworth & Rodkin, Inc. *Morgan Hill Devco Air Quality Analysis, Morgan Hill, California.* June 1, 2023.

The proposed 0.5-acre pond would include a fountain, which would be powered by electric pumps. The pond would be filled with approximately 0.36 acre-feet of non-potable water per year (118,000 gallons per year), with an evaporation rate of approximately 0.28 acre-feet per year (93,400 gallons per year).[41] The pond would require a total of 0.64 acre-feet of water (211,400 gallons per year) in year one of operation and 0.28 acre-feet of water (93,400 gallons per year) per year in the following years. Electricity would be required for groundwater pumping to fill the pond.

Compared to existing conditions, the proposed project would substantially increase on-site electricity use. However, the project would be built in accordance with the current CALGreen requirements and Title 24 energy efficiency standards, which would improve the efficiency of the overall project and reduce impacts. Based on the CalEEMod results, the total annual VMT for the project would be approximately 11,783,398. Using the U.S. EPA fuel economy estimates (25.4 mpg) the proposed project would result in consumption of approximately 463,912 gallons of gasoline per year. New automobiles purchased by future occupants of the proposed project would be subject to fuel economy and efficiency standards applied throughout the State of California, as well as requirements for the increased sale of electric vehicles, which means that over time the fuel efficiency of vehicles associated with the project site would improve. Implementation of the proposed project would not result in a wasteful, inefficient, or unnecessary consumption of energy resources during operation. **(Less than Significant Impact)**

Energy Efficiency During Project Construction

The anticipated construction schedule assumes that the project would be built in three phases over an approximately five-year period, estimated to begin in 2024. The project would require demolition, site preparation, grading and excavation, trenching, paving, and construction of building interior and exterior elements such as foundations and framing. Energy would not be wasted or used inefficiently by construction equipment, as the proposed project would include several measures to improve efficiency of the construction process. For example, during construction, construction waste management methods and processes would be employed to reduce the amount of trash construction waste. The project would be required to achieve a 65 percent construction and demolition waste diversion rate and would be required to prepare a Construction Waste Management Plan or utilize a waste management company to recycle, reduce and/or reuse construction waste (CALGreen Code Sections 4.408 and 5.408). Adherence to CALGreen Code would further reduce energy expenditures during the construction phase.

In addition, the project would implement the standards required for new development within this Planned Development listed under Impact AIR-1 which would restrict equipment idling times to five minutes or less and would require the applicant to post signs on the project site reminding workers to shut off idle equipment to prevent the inefficient use of construction equipment. The project site is within proximity to local sources of construction materials which would reduce fuel usage. Implementation of the proposed project would not result in a wasteful, inefficient, or unnecessary consumption of energy resources during construction. **(Less than Significant Impact)**

[41] Doyle, Ross. Principal, Ruggeri-Jensen-Azar. Personal Communication. May 5, 2023.

Energy Efficiency During Project Operation

Operation of the project would consume energy for multiple purposes including, but not limited to, building heating and cooling, lighting, appliances, and electronics. Operational energy would also be consumed during each vehicle trip generated by future residents. The building would meet or exceed the requirements of the California Building Energy Efficiency Standards.

In addition, consistent with standard City practices, the project would be required to implement the following standards for New Development within this Planned Development related to green building measures.

Required for New Development within this Planned Development: The project applicant shall comply with the Morgan Hill Municipal Code (MHMC) including but not limited to:

- MHMC 15.65 Sustainable Building Regulations
- MHMC 18.72.040 C Electric Vehicle Charging
    - When required electric vehicle charging stations shall be provided:
        - For new structures or uses required to provide at least 25 parking spaces; and
        - Additions or remodels that increase an existing parking lot of 50 or more spaces by 10 percent or more.
    - Number of Charging stations. The number of required charging stations shall be as follows:
        - 25 to 49 parking spaces: one charging station.
        - 50 to 100 parking spaces: two charging stations, plus one for each additional 50 parking spaces.
    - MHMC 15.40 Building Security
    - MHMC 15.38 Wage Theft Prevention

Further, the project would include landscaping comprised of a variety of trees and shrubs throughout the site. This will have the effect of providing shade and reducing the heat island effect of the project, thus reducing the energy demand required to cool the proposed buildings. To reduce operational VMT and vehicle fuel consumption, the project would include TDM measures (refer to Section 4.17 Transportation). For all the reasons listed above, the proposed project would have a less than significant impact. **(Less Than Significant Impact)**

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Electricity for the proposed project would be provided by SVCE. SVCE sources the electricity and PG&E delivers it to customers over their existing utility lines. Customers are automatically enrolled

in the GreenStart plan, which generates its electricity from 100 percent carbon free sources, with 50 percent from solar and wind sources and 50 percent from hydroelectric. Customers have the option to enroll in the GreenPrime plan, which generates its electricity from 100 percent renewable sources, such as wind and solar. The proposed development would be completed in compliance with the current energy efficiency standards set forth in Title 24, CALGreen, and the City's Municipal Code. For these reasons, the project would not conflict with or obstruct state or local plans for renewable energy or energy efficiency. **(Less than Significant Impact)**

c) Would the project result in a substantial increase in demand upon energy resources in relation to projected supplies?

Electricity

As discussed previously, California's total system electric generation in 2020 was approximately 272,576 GWh (a decrease of two percent from 2019).[42] Despite this decrease, consumption is still expected to increase one percent per year in the future. Efficiency and production capabilities would help meet increased electricity demand in the future, such as improving energy efficiency in existing and future buildings, establishing energy efficiency targets, inclusion of microgrids and zero-net energy buildings, and integrating renewable technologies. The project would construct energy efficient buildings in accordance with Title 24, CALGreen, and the City's Green Building Program.

Electricity supply and demand data and reporting is provided at the state level. The project would result in a net increase of 2,651,147 (2.50 GWh) of electricity use on the site, which is a less than 0.00001 percent increase in the state's annual use. Also refer to the discussion under Impact EN-1 of why the project would not result in wasteful, inefficient, or unnecessary consumption of energy. The project's increase in electricity usage is not considered to have a substantial effect on the state's supply. **(Less than Significant Impact)**

Natural Gas

The City of Morgan Hill's Ordinance No. 2306, which was effective in March 2020, prohibits the use of natural gas infrastructure in new buildings. New buildings are required to use all electric appliances. The proposed project would not use natural gas and, therefore, would not increase natural gas demand. **(No Impact)**

[42] California Energy Commission. "2020 Total System Electric Generation, Total System Electric Generation and Methodology." Accessed February 10, 2022. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2020-total-system-electric-generation#:~:text=Total%20generation%20for%20California%20was,to%2057%20percent%20in%202019.

4.6.2.2 *Cumulative Impacts*

a) Would the project result in a cumulatively considerable contribution to a significant cumulative energy impact?

Cumulative projects in the City would result in an increase in energy use relative to existing development. The proposed project would contribute to the expected regional increase in energy use, although its contribution would not be substantial. Implementation of energy efficiency requirements in adopted building codes, such as Title 24 and CALGreen, and implementation of various sustainability and conservation policies in the General Plan would ensure that cumulative development in the City does not result in a significant energy impact. This conclusion is consistent with the finding of the General Plan EIR, which concluded that General Plan implementation would result in a substantial increase in electrical service demands, but would use appropriate energy conservation and efficiency measures, and would not require new energy supply facilities and distribution infrastructure or capacity enhancing alterations to existing facilities. Therefore, the project would not result in a cumulatively considerable contribution to a significant energy impact. **(Less than Significant Cumulative Impact)**

4.7 Geology and Soils

4.7.1 Environmental Setting

4.7.1.1 *Regulatory Framework*

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed following the 1971 San Fernando earthquake. The act regulates development in California near known active faults due to hazards associated with surface fault ruptures. Alquist-Priolo maps are distributed to affected cities, counties, and state agencies for their use in planning and controlling new construction. Areas within an Alquist-Priolo Earthquake Fault Zone require special studies to evaluate the potential for surface rupture to ensure that no structures intended for human occupancy are constructed across an active fault.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (SHMA) was passed in 1990 following the 1989 Loma Prieta earthquake. The SHMA directs the California Geological Survey (CGS) to identify and map areas prone to liquefaction, earthquake-induced landslides, and amplified ground shaking. CGS has completed seismic hazard mapping for the portions of California most susceptible to liquefaction, landslides, and ground shaking, including the central San Francisco Bay Area. The SHMA requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the seismic hazard is present and identify measures to reduce earthquake-related hazards.

California Building Standards Code

The California Building Standards Code (CBC) prescribes standards for constructing safe buildings. The CBC contains provisions for earthquake safety based on factors including occupancy type, soil and rock profile, ground strength, and distance to seismic sources. The CBC requires that a site-specific geotechnical investigation report be prepared for most development projects to evaluate seismic and geologic conditions such as surface fault ruptures, ground shaking, liquefaction, differential settlement, lateral spreading, expansive soils, and slope stability. The CBC is updated every three years.

California Division of Occupational Safety and Health Regulations

Excavation, shoring, and trenching activities during construction are subject to occupational safety standards for stabilization by the California Department of Industrial Relations, Division of Occupational Safety and Health (Cal/OSHA) under Title 8 of the California Code of Regulations and

Excavation Rules. These regulations minimize the potential for instability and collapse that could injure construction workers on the site.

Public Resources Code Section 5097.5

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. They range from mammoth and dinosaur bones to impressions of ancient animals and plants, trace remains, and microfossils. These materials are valued for the information they yield about the history of the earth and its past ecological settings. California Public Resources Code Section 5097.5 specifies that unauthorized removal of a paleontological resource is a misdemeanor. Under the CEQA Guidelines, a project would have a significant impact on paleontological resources if it would disturb or destroy a unique paleontological resource or site or unique geologic feature.

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts due to geological conditions and seismicity. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Geology and Soils

Policy	Description
SSI-1.2	**Hazard Reporting.** Known or potential geologic, fire, and flood hazards shall be disclosed as part of every real estate transaction and recorded on documents to be reported for building permits, subdivisions, and land development reports. Mitigation of hazards shall be noticed in the same manner.
SSI-2.1	**Land Use and Geologic Hazards.** Limit uses on lands with geologic hazards but allow uses on previously urbanized lands with proper mitigation. Keep development in hazardous areas to a minimum by encouraging low-density, low-intensity uses and the type of uses least disruptive to the soil and vegetative cover.
SSI-2.3	**Site Preparation in Hazardous Areas.** Require site preparation in hazardous areas to be designed to achieve long-term geologic stability.
SSI-2.6	**Hillside Development.** Protect hillsides and carefully control development on steep slopes. When hillside land is developed, it should be done with minimum disruption of topography and vegetative cover.
SSI-2.7	**Landslides.** Prohibit development on known active landslides and limit development in areas where such development might initiate sliding or be affected by sliding on adjacent parcels.
SSI-2.9	**Geologic Studies.** Continue to require geologic and geotechnical studies for development in potentially hazardous areas, such as hillside areas and geotechnical studies for critical facilities in areas with liquefiable soils. The costs for consulting geologists shall be covered by a fee to the developer.
SSI-2.10	**Slope Stability.** Enforce and maintain strict grading and building regulations to minimize instability of slopes sloping areas and reduce public costs associated with maintaining roads and utilities on unstable slopes.

Morgan Hill 2035 General Plan Policies: Geology and Soils

Policy	Description
SSI-2.11	**Geotechnical Investigations.** Require geotechnical investigations on all projects in unstable areas, including areas of expansive soils, prior to construction to ensure that the potential hazards are identified and can be properly mitigated.

4.7.1.2 *Existing Conditions*

Regional Geologic Conditions

The project site is located within the seismically active San Francisco Bay Area. The San Francisco Bay Area contains several faults that are capable of generating earthquakes of magnitude 7.0 or higher which regionally trend in a northwesterly direction. The closest faults to the project site are the Calaveras (1.6 miles east), Hayward (8.5 miles north), Monte Vista-Shannon (8.5 miles northwest, and Sargent (8.8 miles southwest) faults.[43] Vicinity faults and their distances from the project site are listed below in Table 4.7-1.

Table 4.7-1: Faults Nearest to Project Site

Fault Name	Approximate Distance (mi)	Orientation from Site
Monte Vista-Shannon	8.5	Northwest
San Andreas	11.3	Southwest
Sargent	8.8	South/Southwest
Hayward	8.5	North
Greenville	20.8	North/Northeast
Calaveras	1.6	East
San Gregorio	36.0	West

The proposed project is located within the Santa Clara Valley, a broad alluvial basin underlain by sedimentary and metamorphic rocks of the Franciscan Complex. The Santa Clara Valley is bounded by the Diablo Range to the east and the Santa Cruz Mountains to the west. The Valley was formed when sediments derived from both mountain ranges were exposed by tectonic uplift and regression of the inland sea which previously inundated this area. The closest foothills to Morgan Hill reach an approximate elevation of over 1,200 feet to the east and west of the City. The project is situated at the eastern edge of the Santa Clara Valley and at the base of the Diablo Range foothills. The highest mountain peaks in the local ranges reach over 4,000 feet approximately 14 miles to the north of the project.

The City of Morgan Hill is susceptible to the effects of regional seismic activity that produces ground shaking intensity levels of 8.0 (severe shaking) and 9.0 (violent shaking) according to the Modified

[43] United States Geologic Survey. "Quaternary Fault and Fold Database of the United States." Accessed January 13, 2022. https://www.usgs.gov/natural-hazards/earthquake-hazards/faults?qt-science_support_page_related_con=4#qt-science_support_page_related_con

Mercalli Intensity (MMI) Scale.[44] In the event of a moderate to large earthquake occurring because of one of the faults mentioned above, strong seismic ground shaking is likely to occur on-site.

On-Site Geologic Conditions

Seismicity and Seismic-Related Hazards

As described above, the project site is located in an area of high seismic activity. It should be anticipated that any structures on the project site will be subjected to at least one earthquake with a magnitude greater than 7.0. Structures within the project site would also be exposed to periodic small to moderate magnitude earthquakes throughout their operational lifespan. For these reasons, the likelihood of powerful ground shaking at the project site is very high.

The project site is generally level and is not at risk of landslides.[45] The project site is not located within a state-designated Earthquake Fault Zone as delineated on the most recent Alquist-Priolo Fault Zone with the nearest segment located approximately 1.6 miles to the northeast.[46]

Topography and Soils

The project site has a small slope of two to nine percent in the east, with the majority of the site gently sloping zero to two percent to the southwest.[47,48] The project site has a high elevation of approximately 385 feet, with an elevation of approximately 370 feet east of the slope, and an elevation of approximately 360 feet west of the slope throughout the remainder of the project site.

Based on a USDA's Soil Data Mart, the project site is within the terrace of an alluvial fan with the upper subsurface conditions of the majority of the site consisting of Cropley clay and transitioning to sandy clay loam around three to four feet below ground surface. The western side of the site consisting of San Ysidro loam and clay loam. Soils on-site have a high risk of shrink swell potential and are, therefore, highly expansive.[49]

[44] Metropolitan Transportation Commission/Association of Bay Area Governments Hazard Viewer Map. "Probabilistic Earthquake Shaking Hazard". Map. Accessed January 12, 2022. https://www.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8

[45] California Department of Conservation, California Geological Survey. *Earthquake Zones of Required Investigation, Landslides.* Accessed January 12, 2022. https://maps.conservation.ca.gov/cgs/EQZApp/app/.

[46] California Department of Conservation, California Geological Survey. *Earthquake Zones of Required Investigation, Alquist Priolo Fault Zone.* Accessed January 12, 2022. https://maps.conservation.ca.gov/cgs/EQZApp/app/.

[47] US Department of Agriculture. *Custom Soil Resource Report for Eastern Santa Clara Area, CA.* January 12, 2022.

[48] Cornerstone Earth Group. *Phase I Environmental Site Assessment and Soil Quality Evaluation, Village at Jackson Square.* October 20, 2020.

[49] US Department of Agriculture. *Custom Soil Resource Report for Eastern Santa Clara Area, CA.* January 12, 2022.

Groundwater

Groundwater depth on the project site is approximately 30 to 50 feet below ground surface and flows northwest.[50] Fluctuations in the groundwater level may occur due to seasonal changes, variations in rainfall and underground drainage patterns, and other factors, with groundwater levels highest along and near the two streams that cross the site.

Soil Liquefaction and Related Hazards

Liquefaction occurs when water-saturated soils lose structural integrity due to seismic activity. Soils that are most susceptible to liquefaction are loose to moderately dense, saturated granular soils with poor drainage. The site is identified as an area of moderate Earthquake Liquefaction Susceptibility based on ABAG/MTC's Hazard Viewer Map for most of the site.[51]

Lateral spreading is a type of ground failure related to liquefaction. It consists of the horizontal displacement of flat-lying alluvial material toward an open area, such as the steep bank of a stream channel. The project site is relatively flat and includes an intermittent creek running through the western portion of the site and an ephemeral stream on the eastern portion of the site. Therefore, the potential for lateral spreading is low with the exception of a limited area where the creek channel overlaps with the moderate susceptibility to liquefaction. Given the project site is located in a region characterized by a sever to violent ground shaking hazard and, due to the location of the site with moderate susceptibility of liquefaction though not in the County's Liquefaction Hazards Zone, the site is at a minor risk of lateral spreading and related ground failure.

Paleontological Resources

The project site is primarily underlain by Holocene age alluvial fan deposits less than approximately 11,000 years old.[52] Geologic units of Holocene age are generally not considered sensitive for paleontological resources, because biological remains younger than 10,000 years are not usually considered fossils. A smaller section in the western part of the site is comprised of Upper Pleistocene age alluvial fan deposits dating from 120,000 to 11,000 years ago.[53] Older sediments, often found at depths of greater than 10 feet below the ground surface, have more commonly yielded the fossil remains of plants and extinct terrestrial Pleistocene vertebrates. According to known fossil records, there are no identified fossil sites in Morgan Hill.[54]

[50] Cornerstone Earth Group. *Phase I Environmental Site Assesssment and Soil Quality Evaluation. Villages at Jackson Square*. October 20, 2020.
[51] MTC/ABAG. Hazard Viewer Map. Accessed March 16, 2022. https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8
[52] Macrostrat. *Bedrock, Fault Lines.* Accessed February 15, 2022. https://macrostrat.org/map/#/z=14.0/x=-121.6017/y=37.1259/bedrock/lines/.
[53] Ibid.
[54] Macrostrat. *Fossils.* Accessed February 15, 2022. https://macrostrat.org/map/#/z=11.4/x=-121.6370/y=37.1247/fossils/.

4.7.2 Impact Discussion

For the purpose of determining the significance of the project's impact on geology and soils, would the project:

1) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (refer to Division of Mines and Geology Special Publication 42)?
    - Strong seismic ground shaking?
    - Seismic-related ground failure, including liquefaction?
    - Landslides?
2) Result in substantial soil erosion or the loss of topsoil?
3) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
4) Be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?
5) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
6) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

4.7.2.1 *Project Impacts*

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides?

As described in Section 4.7.1.2 Existing Conditions, the project site is located approximately 1.6 miles west of the Calaveras fault in the Diablo Range. According to the CGS and Santa Clara County, the project is not within an Alquist-Priolo Earthquake Fault Zone. The project site is located in an area of high seismicity based on the MMI projected ground shaking intensity and is primarily in an area of moderate susceptibility to liquefaction as identified in the ABAG Hazards Map Viewer. Additionally, there is a minor risk of lateral spreading at the location of the stream back overlap with areas of moderate liquefaction susceptibility. According to the Morgan Hill 2035 General Plan FEIR, the proposed structures could be subject to a severe earthquake (magnitude 6.7 or greater)

that could cause significant ground shaking at the project site.[55] Major damage could occur to buildings not designed to resist the ground acceleration forces generated by earthquakes.

Impacts from seismic and seismic-related hazards would be reduced through the use of standard engineering and seismic safety design techniques per the City's Building Division and the California Building Code as required by the following standard measure.

In accordance with the City of Morgan Hill standards, the project shall implement the following measures to reduce and/or avoid soil hazards. Implementation of the Conditions of Approval below would ensure that impacts to the project from soil conditions and seismic hazards would be less than significant.

Required for New Development within this Planned Development: The project shall implement the following to reduce and/or avoid soil hazards.

- To avoid or minimize potential damage from seismic shaking, the proposed residential development shall be built using standard engineering and seismic safety design techniques. Prior to issuance of building permits, building design and construction at the site shall be completed in conformance with the recommendations of a design-level geotechnical investigation, which shall be included in a report to the City. The structural designs for the proposed development will account for repeatable horizontal ground accelerations. The report shall be reviewed and approved by the City of Morgan Hill Building Division prior to issuance of a building permit. The buildings shall be required to meet the requirements of applicable Building and Fire Codes, including the California Building Code Chapter 16, Section 1613, as adopted or updated by the City. The project will be designed to withstand soil hazards identified on the site and the project shall be designed to reduce the risk to life or property to the extent feasible and in compliance with the Building Code.

With implementation of the above standard, the proposed development would be designed to withstand soil hazards and to reduce the risk to life or property to the extent feasible and in compliance with the California Building Code. **(Less Than Significant Impact)**

b) Would the project result in substantial soil erosion or the loss of topsoil?

Ground disturbance would be required during grading, trenching, and construction of the proposed project. Ground disturbance would expose soils and increase the potential for wind or water related erosion and sedimentation at the site until construction is complete.

The following would be implemented to ensure soil erosion impacts during construction are less than significant.

[55] City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report.* May 2016.

Required for New Development within this Planned Development: Prior to final map approval or issuance of a grading permit the applicant shall complete the following to the satisfaction of the City Engineer or designee:

1. Storm drain calculations to determine detention pond sizing and operations.
2. Plan describing how material excavated during construction will be controlled to prevent this material from entering the storm drain system.
3. Water Pollution Control Drawings for Sediment and Erosion Control.

Required for New Development within this Planned Development: The project shall implement the following condition to ensure soil erosion impacts remain at less than significant levels.

- As required by the State Water Resources Control Board (SWRCB) Order No. 2022-0057-DWQ, construction activity resulting in a land disturbance of one acre or more of soil, or whose projects are part of a larger common plan of development that in total disturbs more than one (1) acre, are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Associated with Construction Activity (General Permit). To be permitted with the SWRCB under the General Permit, owners must file a complete Notice of Intent (NOI) package and develop a Storm Water Pollution Prevention Plan (SWPPP) Manual in accordance with Section A, B, and C of the General Permit prior to the commencement of soil disturbing activities. A NOI Receipt Letter assigning a Waste Discharger Identification number to the construction site will be issued after the State Water Resource Control Board (SWRCB) receives a complete NOI package (original signed NOI application, vicinity map, and permit fee); copies of the NOI Receipt Letter and SWPPP shall be forwarded for Building and Engineering Division review. The SWPPP shall be made a part of the improvement plans. (SWRCB NPDES General Permit CA000002)

With implementation of the above Conditions of Approval, the proposed project would result in a less than significant soil erosion impact. **(Less than Significant Impact)**

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

The project site is located in an area of moderate expansion potential, moderately low to low potential for vertical and lateral ground failure, and very strong ground shaking during an earthquake. The proposed project would be built outside of the Tennant Creek bank and would not pose a risk of liquefaction or lateral sliding given the distance of the closest building to the creek. As discussed under Section 4.4 Biological Resources, the existing un-named ephemeral stream would be converted to an underground storm drain; therefore, the stream would not pose a risk of liquefaction or lateral sliding with implementation of the proposed project.

As discussed under Impact GEO-1, the proposed project would be constructed in compliance with the CBC and the City's Municipal Code. Development of the site would not substantially change or exacerbate the geologic conditions of the project area. Therefore, the proposed project would not result in a less than significant geology hazards impact. **(Less than Significant Impact)**

d) Would the project be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?

As described in Section 4.7.1.2 Existing Conditions, the soils on-site contain clay and have a very high expansion potential. Consistent with City requirements, buildings will be designed and constructed in accordance with the CBC and Chapter 15.08 of the City's Municipal Code. Additionally, the proposed project would be built in conformance with the requirements of the CBC. Therefore, the project would not expose people or property to significant impacts associated with the soil conditions of the site. **(Less than Significant Impact)**

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The proposed project would utilize the existing wastewater disposal system in the City of Morgan Hill and would not require the use of septic tanks or alternative wastewater disposal systems. Therefore, the proposed project would not have impacts resulting from inadequate soils. **(No Impact)**

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

No paleontological resources have been identified in the City of Morgan Hill. The proposed project would excavate to a maximum depth of approximately 10 feet to install necessary utility infrastructure and excavate for the pond. Although paleontological resources would not likely be encountered during construction (given no other paleontological resources have been discovered in the area), in an abundance of caution, the project would implement the following mitigation measure.

Impact GEO-1: Ground-disturbing construction activities could disturb paleontological resources.

Mitigation Measures: The following mitigation measure shall be implemented during construction to reduce impacts to paleontological resources to a less than significant level.

MM GEO-1.1: If vertebrate fossils are discovered during construction, all work on the site shall stop immediately. The Development Services Director or the Director's

designee shall be notified, and a qualified professional paleontologist shall assess the nature and importance of the find and recommend appropriate treatment. Treatment may include, but is not limited to, preparation and recovery of fossil materials so that they can be housed in an appropriate museum or university collection and may also include preparation of a report for publication describing the finds. The project applicant shall be responsible for implementing the recommendations of the qualified paleontologist. A report of all findings shall be submitted to the Development Services Director or the Director's designee prior to work beginning on the site following a discovery.

With the implementation of the above mitigation measure, the project would result in a less than significant impact to paleontological resources. **(Less than Significant Impact with Mitigation Incorporated)**

4.7.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant geology and soils impact?

The geographic area for cumulative geology and soils impacts is the project site and adjacent parcels. There are no other proposed projects within the vicinity of the site. The proposed project would implement MM GEO-1.1 above, Conditions of Approval related to geologic hazards, and would be constructed consistent with the CBC and design-level geotechnical recommendations in order to avoid and reduce impacts from seismicity and geologic and soils hazards. For these reasons, the proposed project would not result in significant cumulative geology and soils impacts. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

4.8 Greenhouse Gas Emissions

The following discussion is based, in part, on an Air Quality Analysis prepared for the project by Illingworth & Rodkin, Inc. (I&R) dated January 2022. A copy of this report is included in Appendix B of this EIR.

4.8.1 Environmental Setting

4.8.1.1 *Background Information*

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. In GHG emission inventories, the weight of each gas is multiplied by its global warming potential (GWP) and is measured in units of CO_2 equivalents (CO_2e). The most common GHGs are carbon dioxide (CO_2) and water vapor but there are also several others, most importantly methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO_2 and N_2O are byproducts of fossil fuel combustion.
- N_2O is associated with agricultural operations such as fertilization of crops.
- CH_4 is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents, but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and SF_6 emissions are commonly created by industries such as aluminum production and semiconductor manufacturing.

An expanding body of scientific research supports the theory that global climate change is currently causing changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

4.8.1.2 *Regulatory Framework*

State

Assembly Bill 32

Under the California Global Warming Solutions Act, also known as AB 32, CARB established a statewide GHG emissions cap for 2020, adopted mandatory reporting rules for significant sources of GHGs, and adopted a comprehensive plan, known as the Climate Change Scoping Plan, identifying how emission reductions would be achieved from significant GHG sources.

In 2016, SB 32 was signed into law, amending the California Global Warming Solution Act. SB 32, and accompanying Executive Order B-30-15, require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of CO_2E ($MMTCO_2e$). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 $MMTCO_2e$.

Senate Bill 375

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to develop regional GHG reduction targets for automobile and light truck sectors for 2020 and 2035. The per-capita GHG emissions reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

Consistent with the requirements of SB 375, the Metropolitan Transportation Commission (MTC) partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and the Bay Conservation and Development Commission to prepare the region's Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan process. The SCS is referred to as Plan Bay Area 2050. Plan Bay Area 2050 establishes a course for reducing per-capita GHG emissions through the promotion of compact, high-density, mixed-use neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).

Regional and Local

2017 Clean Air Plan

To protect the climate, the 2017 CAP (prepared by BAAQMD) includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The

jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing GHG impacts developed by BAAQMD within the CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts due to greenhouse gases. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Greenhouse Gases

Policy	Description
NRE-15.1	**Greenhouse Gas Emission Reduction Targets.** Maintain a greenhouse gas reduction trajectory that is consistent with the greenhouse gas reduction targets of Executive Order B-30-15 (40 percent below 1990 levels by 2030) and S-03-05 (80 percent below 1990 levels by 2050) to ensure the City is consistent with statewide efforts to reduce greenhouse as emissions.
NRE-15.2	**Linking Land Use and Transportation.** Encourage land use and transportation patterns that reduce dependence on automobiles.
NRE-15.3	**Climate Action Plan.** Utilize policies in this General Plan denoted with the green leaf symbol as the City's greenhouse gas emissions reduction strategy.
NRE-15.4	**Sustainable Land Use.** Promote land use patterns that reduce the number and length of motor vehicle trips.
NRE-15.5	**Jobs Housing Balance.** To the extent feasible, encourage a balance and match between jobs and housing.
NRE-15.7	**Mix of Uses in Employment Centers.** Encourage employment areas to include a mix of support services to minimize the number of employee trips.
NRE-15.8	**Walkable City.** Encourage retail and office areas to be located within walking and biking distance of existing and proposed residential developments.
NRE-15.9	**Urban Forest.** Support development and maintenance of a healthy, vibrant urban forest through outreach, incentives, and strategic leadership.
NRE-15.10	**VMT Reduction.** Continue to work with the Santa Clara Valley Transportation Authority on regional transportation solutions that will reduce vehicle miles traveled and greenhouse gas emissions.
NRE-15.11	**Green Building.** Promote green building practices in new development.
NRE-16.1	**Energy Standards for New Development.** New development, including public buildings, should be designed to exceed State standards for the use of energy.
NRE-16.2	**Energy Conservation.** Promote energy conservation techniques and energy efficiency in building design, orientation, and construction.
NRE-16.3	**Energy Use Data and Analysis.** Provide information to increase building owner, tenant, and operator knowledge about how, when, and where building energy is used.

Morgan Hill 2035 General Plan Policies: Greenhouse Gases

Policy	Description
NRE-16.5	**Energy Efficiency.** Encourage development project designs that protect and improve air quality and minimize direct and indirect air pollutant emissions by including components that promote energy efficiency.
NRE-16.6	**Landscaping for Energy Conservation.** Encourage landscaping plans for new development to address the planting of trees and shrubs that will provide shade to reduce the need for cooling systems and allow for winter daylighting.
NRE-16.7	**Renewable Energy.** Encourage new and existing development to incorporate renewable energy generating features, like solar panels and solar hot water heaters.
NRE-16.8	**Residential Development Code.** Emphasize energy conservation building techniques for new residential construction through the implementation of Chapter 18.78 of the Municipal Code.
NRE-16.9	**Subdivision Design.** In compliance with Section 66473.1 of the State Subdivision Map Act, promote subdivision design that provides for passive solar heating and natural cooling through the Development Review Committee subdivision review procedures.

Morgan Hill 2021 Climate Action Plan

The Morgan Hill 2021 Climate Action Plan includes goals and actions that focus on the adoption of electric vehicles in the community and the process of decarbonizing existing buildings by reducing the use of fossil fuels. The Climate Action Plan goal is to eliminate natural gas usage and transition 95 percent of existing buildings in Morgan Hill to all-electric by 2045. The Climate Action Plan also proposes to prohibit any new gas stations. On December 15, 2021, the City adopted the Climate Action Plan with guidelines of reducing Morgan Hill's net CO_2 emissions in the building and transportation sectors 35 percent below the 2020 baseline level by 2030 and 100 percent below the 2020 baseline level by 2045.[56]

Applicable measures in the Climate Action Plan include:

- Action Item 4.a: Require all new construction of single family detached homes, townhouses, and other dwelling units with a garage to install a listed raceway to accommodate a 208/240-volt branch circuit for potential EV charging to be installed in accordance with the California Electrical Code, Article 625.
- No natural gas use.

However, the Climate Action Plan does not have a specific metric ton GHG threshold for project-level construction or operation or a Climate Action Plan Compliance Checklist. Therefore, the BAAQMD's CEQA Air Quality Guideline's thresholds are used to evaluate the significance of a project's GHG emissions.

[56] City of Morgan Hill, *Morgan Hill 2021 Climate Action Plan*, December 15, 2021, https://www.morgan-hill.ca.gov/DocumentCenter/View/40166/Climate-Action-Plan-Draft-December-9-2021-?bidId=

4.8.1.3 *Existing Conditions*

Unlike emissions of criteria and toxic air pollutants, which have regional and local impacts, emissions of GHGs have a broader, global impact. Global warming is a process whereby GHGs accumulating in the upper atmosphere contribute to an increase in the temperature of the earth and changes in weather patterns.

4.8.2 Impact Discussion

For the purpose of determining the significance of the project's impact on greenhouse gas emissions, would the project:

1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

4.8.2.1 *Project Impacts*

a) Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy, and water usage, and solid waste disposal. Emissions for the proposed project were analyzed using CalEEMod and the methodology recommended in the BAAQMD CEQA Air Quality Guidelines and are discussed below.

As discussed in Section 4.3 Air Quality, the technical report prepared for the project (Appendix B Air Quality and Greenhouse Gas Analysis) reflects the project description at the time the analysis was conducted (262 single-family houses, 21 senior single-family houses with 20 ADUs, and 55 senior condominiums). The land uses have changed to include 223 single-family houses, 42 court-style houses, 21 senior cottages, 34 senior duets, and 44 ADUs. The total square footage decreased from approximately 720,000 square feet to 611,550 square feet. This minor net increase of six units (less than two percent increase of the total studied), due to the increase in ADUs proposed and the reduction in senior units, would not change the GHG emission impact findings or measures below.

Service Population Emissions

The project service population efficiency rate is based on the number of future residents. For this project, the number of future residents was estimated assuming 2.93 persons per household for the 223 single-family detached houses and 42 court-style houses, and 2.0 persons per household for

the 21 senior cottages, 34 senior duets, and 44 ADUs. Based on this the number of future residents was estimated to be 975 residents. This total service population was used to calculate the per capita emissions.

Construction Emissions

GHG emissions associated with construction were computed to be 5,773 MT of CO_2e for the total construction period and would occur over a five-year period as the construction is phased. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction related GHG emissions, though BAAQMD recommends quantifying emissions and disclosing that GHG emissions would occur during construction. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable.

Operational Emissions

Although BAAQMD has not published a quantified threshold for 2030 yet, this assessment uses a "Substantial Progress" efficiency metric of 2.8 MT CO_2e/year/service population and a bright-line threshold of 660 MT CO_2e/year based on the GHG reduction goals of EO B-30-15 (discussed briefly in Section 4.8.1.2). The service population metric of 2.8 is calculated for 2030 based on the 1990 inventory and the projected 2030 statewide population and employment levels. The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MT CO_2e/year threshold. The CalEEMod model, along with the project vehicle trip generation rates, was used to estimate daily emissions associated with operation of the fully developed site under the proposed project. As shown in Table 4.8-1 below, the annual emissions resulting from occupancy of the new dwelling units of the proposed project is predicted to be 3,919 MT of CO_2e in 2030. The service population emissions for the year 2030 is predicted to be 4.02 MT/CO_2e/year/service population.

Table 4.8-1: Annual Project GHG Emissions (CO2e) in Metric Tons and Per Capita

Source Category	**Proposed Project in 2030**
Area	79
Energy Consumption	5
Mobile	3,625
Solid Waste Generation	196
Water Usage	14
Total MT CO2e/year)	**3,919**
Significance Threshold	660 MT CO2e/year
Service Population Emissions	**4.02**
Significance Threshold	2.8 in 2030
Exceeds both thresholds?	**Yes**

Source: Illingworth & Rodkin, Inc. *Morgan Hill Devco Air Quality Analysis, Morgan Hill, California*. June 1, 2023.

To be considered an exceedance, the project must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold in the future year of 2030. As shown in Table 4.8-1 above, the project would exceed the annual emissions bright-line threshold of 660 MT CO_2e/year and the service population threshold of 2.8 MT of CO_2e/year/service population in 2030. Therefore, the project would exceed the bright-line and service population GHG emissions target for 2030, which would result in a significant GHG impact.

Impact GHG-1: The project would exceed the BAAQMD annual emissions bright-line threshold and service population threshold for greenhouse gas (GHG) emissions.

Mitigation Measures: The project applicant shall implement the following mitigation measures to ensure that potential impacts to greenhouse gas emissions remain at a less than significant level.

MM GHG-1.1: Prior to issuance of grading permits on the project, the project applicant shall submit and implement a GHG reduction plan to the Development Services Director or Director's designee that reduces the project's operational GHG emissions in 2030 by 1,189 MT CO_2e/year. The GHG reduction plan shall be implemented until the City adopts its GHG reduction plan consistent with the State's interim 2030 GHG emissions reduction target of 40 percent below 1990 levels. All feasible project design and operational measures shall be implemented prior to the purchase of credits.

The GHG reduction plan shall include a combination of the measures listed below to reduce project GHG impacts:

- Implementation of a transportation demand management (TDM) program to reduce mobile GHG emissions;
- Installation of solar power systems or other renewable electric generating systems that provide electricity to power on-site equipment and possibly provide excess electric power;
- Provide infrastructure for electric vehicle charging in residential units and parking areas (i.e., provide 220 VAC power);
- Increase water conservation above State average conditions for residential uses by installing low flow water utilities and irrigation; and
- Purchase verifiable carbon emission offsets that meet all of the following standards:
    - Registry Performance Standards: The registry shall account for and quantify emission reductions using clear and defined standards and incorporating recognized principles of GHG emissions reduction accounting, including those set forth in the ISO 14064 and the WRI/WBCSD Greenhouse Gas Protocol for Project Accounting:

- The registry shall use clear information sufficient for reviewers to assess credibility of GHG emission reductions underlying the carbon offset credits. Upon request by the City's Development Services Director or his or her designee, any governmental entity, or any stakeholder,
- The registry shall provide the following information within a reasonable time period in connection with any carbon offset credit retired by the applicant: (i) the applicable quantification protocol; and (ii) all third-party confirmation or verification reports issued in connection with the carbon offset credits. Such information shall be sufficient to monitor compliance by the project applicant with this mitigation measure.
- Carbon Offset Credit Performance Standards: The carbon offset credits retired by the applicant for the purpose of mitigating GHG emissions shall represent GHG emission reductions that are real, permanent, additional, quantifiable, verifiable and enforceable. To demonstrate compliance with such requirements, the developer shall provide the following to the City's Development Services Director or his or her designee: (i) the protocol used to quantify and issue such carbon offset credits, (ii) the third-party verification report(s) pursuant to which such carbon offset credits were issued, and (iii) the unique serial numbers of the carbon offset credits to be retired to ensure that the offset cannot be further used in any manner. The Development Services Director or his or her designee shall reject any carbon offset credits that do not comply with these requirements, and where reductions are not direct reductions within a confined project boundary or provide opportunities for reversal of the avoided emissions. The Development Services Director or his or her designee shall reject any credits for a project that includes technology or GHG abatement practices that are already widely used.
- Geographic Limitations: The carbon offsets shall be from credit projects developed in the United States. Carbon offset credits resulting from international credit projects shall not be acceptable to satisfy this mitigation measure.

- Enforcement: The permits relating to the project shall be conditioned on achievement of GHG mitigation milestones. The purchase and retirement of carbon offset credits required to mitigate the GHG emissions resulting from the operation of the project shall be a condition of the issuance of a certificate of occupancy, temporary or permanent, for the project and as an issuance for continued operation. Should the City determine that the offset credits are non-compliant with the requirements in this mitigation measure, the City may issue a notice of non-consistency and cease permitting activities and/or stop project operations, until the City determines via an issued public notice that the offsets comply with the aforementioned standards.

Some of the measures involve project features or operational measures that would serve to reduce project emissions. However, it may not be possible to accomplish the required reduction solely through the design and operation of the project, in which case the use of carbon offsets would be required. Carbon offsets, as purchased through a verified registry, are a feasible and appropriate method to reduce a project's GHG emissions and is recognized by BAAQMD and CARB. Because the project would be required to purchase whatever remaining amount of GHG reduction was required, after exhausting on-site reduction options such as those listed above, the project's GHG emissions would be reduced to a level below the applicable 2030 target. Therefore, implementation of a GHG reduction plan, as set forth in the mitigation measure above, would reduce the project's GHG emissions impact to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?

As noted in Section 4.6 Energy, the proposed buildings would be constructed in conformance with CALGreen and the Title 24 Building Code, which requires high-efficiency water fixtures, water-efficient irrigation systems, and compliance with current energy efficacy standards. With implementation of MM GHG-1.1, the proposed project's operational GHG emissions would fall below the efficiency metric of 2.8 MT CO2e/year/service population for 2030, which is based on the statewide GHG emissions reduction targets established by SB 32 and Executive Order B-30-15. Thus, the proposed project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in CARB's Scoping Plan nor would the project conflict with SB 100 goals (discussed in Section 4.8.1.2). Therefore, the project would be consistent with state and local plans and policies pertaining to GHG emission reductions. **(Less than Significant Impact with Mitigation Incorporated)**

4.8.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant GHG emissions impact?

Past, present, and future development projects (including the proposed project and cumulative General Plan buildout) worldwide contribute to global climate change. No single project is sufficient in size to, by itself, change the global average temperature. Therefore, due to the nature of GHG impacts, a significant project impact is a significant cumulative impact. As discussed under Impact GHG-1, with the implementation of mitigation measure MM GHG-1.1, the project would result in less than significant GHG impact. The project, therefore, would not result in a cumulatively considerable contribution to a significant cumulative GHG impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

4.9 Hazards and Hazardous Materials

The following discussion is based, in part, on a Phase I Environmental Site Assessment (ESA) and a Supplemental Soil Quality Evaluation prepared for the project by Cornerstone Earth Group, dated October 20, 2020 and February 1, 2021, respectively. Copies of these reports are included in Appendices F and G of this EIR.

4.9.1 Environmental Setting

4.9.1.1 *Regulatory Framework*

Overview

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Worker health and safety and public safety are key issues when dealing with hazardous materials. Proper handling and disposal of hazardous material is vital if it is disturbed during project construction. Cal/OSHA enforces state worker health and safety regulations related to construction activities. Regulations include exposure limits, requirements for protective clothing, and training requirements to prevent exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement.

Federal and State

<u>Federal Aviation Regulations Part 77</u>

Federal Aviation Regulations, Part 77 Objects Affecting Navigable Airspace (FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards (such as reflective surfaces, flashing lights, and electronic interference) to aircraft in flight. These regulations require that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above the ground.

<u>Comprehensive Environmental Response, Compensation, and Liability Act</u>

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to

releases or threatened releases of hazardous substances that may endanger public health or the environment. Over five years, $1.6 billion was collected and the tax went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA accomplished the following objectives:

- Established prohibitions and requirements concerning closed and abandoned hazardous waste sites;
- Provided for liability of persons responsible for releases of hazardous waste at these sites; and
- Established a trust fund to provide for cleanup when no responsible party could be identified.

The law authorizes two kinds of response actions:

- Short-term removals, where actions may be taken to address releases or threatened releases requiring prompt response; and
- Long-term remedial response actions that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life-threatening. These actions can be completed only at sites listed on the EPA's National Priorities List.

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.[57]

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA), enacted in 1976, is the principal federal law in the United States governing the disposal of solid waste and hazardous waste. RCRA gives the EPA the authority to control hazardous waste from the "cradle to the grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also sets forth a framework for the management of non-hazardous solid wastes.

The Federal Hazardous and Solid Waste Amendments (HSWA) are the 1984 amendments to RCRA that focused on waste minimization, phasing out land disposal of hazardous waste, and corrective action for releases. Some of the other mandates of this law include increased enforcement

[57] United States Environmental Protection Agency. "Superfund: CERCLA Overview." Accessed May 11, 2020. https://www.epa.gov/superfund/superfund-cercla-overview.

authority for the EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.[58]

Government Code Section 65962.5

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by state and local agencies and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB).[59]

Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) of 1976 provides the EPA with authority to require reporting, record-keeping and testing requirements, and restrictions relating to chemical substances and/or mixtures. Certain substances are generally excluded from TSCA, including, among others, food, drugs, cosmetics, and pesticides. The TSCA addresses the production, importation, use, and disposal of specific chemicals including polychlorinated biphenyls (PCBs), asbestos, radon, and lead-based paint.

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of a property. Facilities that are required to participate in the CalARP Program use or store specified quantities of toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The Santa Clara County Department of Environmental Health reviews CalARP risk management plans as the CUPA.

Asbestos-Containing Materials

Friable asbestos is any asbestos-containing material (ACM) that, when dry, can easily be crumbled or pulverized to a powder by hand, allowing the asbestos particles to become airborne. Common examples of products that have been found to contain friable asbestos include acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters and pipes. Common examples of non-friable ACMs are asphalt roofing shingles, vinyl floor tiles, and transite siding made with cement. The EPA phased out use of friable asbestos products between 1973 and 1978. National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines require that potentially friable ACMs be removed prior to building demolition or remodeling that may disturb the ACMs.

[58] United States Environmental Protection Agency. "Summary of the Resource Conservation and Recovery Act." Accessed May 11, 2020. https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act.
[59] California Environmental Protection Agency. "Cortese List Data Resources." Accessed April 12, 2022. https://calepa.ca.gov/sitecleanup/corteselist/.

CCR Title 8, Section 1532.1

The United States Consumer Product Safety Commission banned the use of lead-based paint in 1978. Removal of older structures with lead-based paint is subject to requirements outlined by the Cal/OSHA Lead in Construction Standard, CCR Title 8, Section 1532.1 during demolition activities. Requirements include employee training, employee air monitoring, and dust control. If lead-based paint is peeling, flaking, or blistered, it is required to be removed prior to demolition.

Regional and Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts due to hazards and hazardous materials. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Hazards and Hazardous Materials

Policy	Description
NRE-12.3	**Control Measures.** Require construction and demolition projects that have the potential to disturb asbestos (from soil or building material) to comply with all the requirements of the California Air Resource board's air toxics control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.
SSI-4.3	**Use and Handling Requirements.** Continue a program of regular inspections and monitoring to ensure compliance with local, State, and federal regulations, in order to reduce the risks associated with the use and handling of hazardous materials and wastes.
SSI-4.5	**Storage and Usage.** Regularly inspect activities that store and/or use hazardous materials, including above-ground and underground storage tanks and related equipment, to ensure compliance with the City's Hazardous Materials Storage Ordinance (HMSO).
SSI-4.13	**Household Waste.** Offer regular household hazardous waste collection programs and other related activities in order to limit the types and amounts of hazardous waste entering the ordinary waste stream.
SSI-4.16	**Contaminated Soil Mitigation.** Require new or expanding development projects in areas contaminated from previous discharges to mitigate their environmental effects.

4.9.1.2 *Existing Conditions*

Historic and Current Uses of the Site

The 69.4-acre site contained an orchard on the western portion of the site in 1939 and row crops on the eastern portion of the site in 1940. The orchards were removed by 1950. By 1956, three residential structures and an associated outbuilding were constructed on the western portion of the site. Two additional structures were added by 1968. The residences were removed during the mid-2000s.

The majority of the project site is comprised of fallowed agricultural land. The site contains remnant structures from a former dairy facility on the western portion of the site, with two water supply

wells and an approximately 5,500-gallon above ground storage tank (AST) near the structures. The site contains a stormwater detention basin north of Barrett Avenue. The site also contains a soil stockpile approximately 15 feet in height on the eastern portion of the site, west of Sorrel Drive. The Phase I ESA sampled the stockpile and confirmed there were no analyte concentrations exceeding residential screening criteria.

On-site Environmental Conditions

Soil Quality Evaluation

Given the site was previously used for agricultural and dairy operations, soil sampling was performed on-site. The Phase I ESA found that in eight of 50 soil samples, dieldrin, arsenic, lead, and mercury were detected at concentrations exceeding residential screening levels.[60] These soil samples were collected in the vicinity of the existing and former structures. The source of the elevated dieldrin and lead concentrations are likely related to the past application of termite control products and lead-containing paints (LCPs), respectively. The sources of the elevated mercury and arsenic concentrations are unknown.

Additional soil sampling was completed to determine the lateral and vertical extent of the impacted soils at the eight locations. The Supplemental Soil Quality Evaluation determined that arsenic exceeded natural/background conditions in one sample, lead exceeded residential screening level concentrations in one sample, dieldrin and mercury concentrations were below residential screening levels, and DDT was detected at a concentration below residential screening levels.

Water Supply Wells and Septic Systems

The project site contains two water supply wells. Improperly abandoned wells can act as a conduit for the vertical migration of groundwater contamination. If groundwater levels rise, an abandoned well can become an artisan well, with uncontrolled water flow that can adversely impact future developments.

Septic systems have not been observed from site reconnaissance, though it is likely septic systems were present at the locations of the former residences.[61]

Asbestos-Containing Materials and Lead-Based Paint

The buildings on-site were constructed prior to 1978 and are likely to have materials that contain ACMs and/or lead-based paints (LBPs).

[60] Cornerstone Earth Group. *Villages at Jackson Square Phase I Environmental Site Assessment.* October 20, 2020. Page 14.
[61] Ibid. Page 15.

Airport Hazards

The project site is located approximately 3.2 miles northeast of the San Martin Airport. Due to its distance from the airport, the site is not exposed to any airport hazards.

Wildland Fires

The project site is not located within a Very High Severity Zone; however, the site is adjacent to a High Fire Severity Zone approximately 200 feet to the east according to the City of Morgan Hill Wildland Urban Interface Map.[62]

4.9.2 Impact Discussion

For the purpose of determining the significance of the project's impact on hazards and hazardous materials, would the project:

1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?
6) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

[62] City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map*. Accessed September 16, 2021. http://www.morganhill.ca.gov/DocumentCenter/View/3037/Fire-Hazard-Severity-Zones-Adopted3-18-09?bidId=.

4.9.2.1 *Project Impacts*

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Operation

The project proposes to develop a total of 364 new residential units. Operationally, the transport, use, and disposal of hazardous materials from residential uses would be minimal because these uses do not typically necessitate hazardous materials, except for ordinary substances such as household cleaners, paint, etc. Thus, project implementation would not lead to long-term release of hazardous materials into the environment.

Construction

Construction of the proposed project would require the use of hazardous materials including petroleum products, lubricants, cleaners, paints, and solvents. The use and storage of hazardous materials in the City of Morgan Hill is regulated by the Santa Clara County Department of Environmental Health Hazardous Materials Compliance Division (SCCDEH). Construction of the proposed project would conform to the requirements of the SCCDEH.

Compliance with applicable federal, state, and local handling, storage, and disposal requirements would ensure that no significant hazards to the public or the environment are created by these routine activities. For these reasons, the storage and handling of hazardous materials on-site under the proposed project would result in a less than significant impact. **(Less than Significant Impact)**

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Contaminated Soils

As stated in Section 4.9.1.2 Existing Conditions above, the western portion of the project site contains soils contaminated with lead and agricultural chemicals above regulatory screening levels for residential areas, associated with historic agricultural buildings.

Impact HAZ-1: Contaminated soils disturbed during construction have the potential to release chemicals to the environment that could expose construction workers and nearby land uses.

Mitigation Measures: The project shall implement the following mitigation measures to reduce potential impacts resulting from the disturbances of soils containing lead and agricultural chemicals.

MM HAZ-1.1: Prior to issuance of a site grading permit, a corrective action/risk management plan (e.g., remedial action plan, removal action workplan, or

Site Management Plan) shall be prepared that reflects the results of the on-site investigations. The corrective action/risk management plan shall describe mitigation measures (e.g., removal of contaminated soil) necessary to protect the health and safety of construction workers, nearby residents, and the environment, and establish appropriate management practices for handling and monitoring of impacted soil that may be encountered during construction activities. The corrective action/risk management plan shall describe protocols for the profiling of soil, if any, planned for off-site disposal. The corrective action/risk management plan should be prepared by an environmental professional and be submitted to an appropriate overseeing regulatory agency (e.g., Water Board, California DTSC, or SCCDEH) for review. Regulatory agency approval shall be obtained prior to commencing earthwork activities in the vicinity of the identified impacted soil. This measure shall be completed under regulatory agency oversight and meet all applicable federal, state, and local laws, regulations, and requirements. Following completion, a report documenting compliance with the provisions of the corrective action/risk management plan and describing the work completed shall be submitted to and approved by the overseeing regulatory agency.

Implementation of MM HAZ-2.1 would ensure that hazardous conditions on-site would not create a significant hazard to the public or to the environment. **(Less than Significant Impact with Mitigation Incorporated)**

Asbestos-Containing Materials and Lead-Based Paint

The structures on-site were constructed prior to 1978 and are likely to contain ACMs or LBPs.

Impact HAZ-2: The project would demolish the existing buildings, which could release asbestos particles and expose construction workers and nearby residents to harmful levels of asbestos.

Mitigation Measures: The project shall implement the following mitigation measure to reduce impacts resulting from disturbance of lead-based paint or ACMs.

MM HAZ-2.1: Prior to issuance of a demolition permit for on-site structures, the project applicant shall consult with certified Asbestos and/or Lead Risk Assessors to complete and submit for review to the Building Division an asbestos and lead survey. If asbestos-containing materials or lead-containing materials are not discovered during the survey, further mitigation related to asbestos-containing materials or lead-containing materials shall not be required. If asbestos-containing materials and/or lead-containing materials are discovered by the survey, the project applicant shall prepare a work plan to demonstrate how the on-site asbestos-containing materials and/or lead-containing materials shall be removed in accordance with current California

Occupational Health and Safety (Cal-OSHA) Administration regulations and disposed of in accordance with all CalEPA regulations, prior to the demolition and/or removal of the on-site structures. The plan shall include the requirement that work shall be conducted by a Cal-OSHA registered asbestos and lead abatement contractor in accordance with Title 8 CCR1529 and Title 8 CCR 1532.1 regarding asbestos and lead training, engineering controls, and certifications. The applicant shall submit the work plan to the City for review and approval. The City has the right to defer the work plan to the Santa Clara County Department of Environmental Health for additional review. Materials containing more than one (1) percent asbestos that is friable are also subject to BAAQMD regulations. Removal of materials containing more than one (1) percent friable asbestos shall be completed in accordance with BAAQMD Section 11-2-303.

Compliance with regulatory requirements and implementation of MM HAZ-2.1 would ensure that ACMs and LBPs on-site would not create a significant hazard to the public or to the environment. Therefore, impacts would be less than significant. **(Less than Significant with Mitigation Incorporated)**

Water Wells and Septic Systems

Two water supply wells were observed on site. As discussed in Section 4.9.1.2 Existing Conditions, improper abandonment of wells and septic systems could act as a conduit for the vertical migration of groundwater contamination. If groundwater levels rise, an abandoned well can become an artisan well, with uncontrolled water flow that can adversely impact future developments.

Impact HAZ-3: Improper abandonment of wells and septic systems on-site could result in groundwater contamination.

Mitigation Measures: The project would implement the following mitigation measure to destroy the water wells on-site.

MM HAZ-3.1: Prior to issuance of a grading permit, the project applicant shall research well records from Valley Water and attempt to locate abandoned wells at the site. If a well is located on site, the project applicant or contractor shall contact Valley Water's Wells Hotline immediately to assist in the identification of abandoned/unregistered wells or structures and help determine the appropriate means of addressing them. If the wells are identified, or subsequently encountered during earthwork activities, the applicant shall obtain a well destruction permit from Valley Water, and the wells shall be properly destroyed in accordance with Valley Water Ordinance 90-1. If septic systems are encountered during earthwork activities, those systems shall be abandoned in accordance with SCCDEH requirements.

With implementation of MM HAZ-3.1, historic wells and septic systems on the site would be destroyed in accordance with Valley Water and SCCDEH requirements and would not result in significant impacts. **(Less than Significant Impact with Mitigation Incorporated)**

c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The closest school to the project site is Jackson Elementary School, located adjacent to the northeastern portion of the site. With implementation of mitigation measures MM HAZ-1.1, MM HAZ-2.1, and MM HAZ-3.1, the project would not emit hazardous emissions or handle hazardous materials/substances within one-quarter mile of a school. **(Less than Significant Impact with Mitigation Incorporated)**

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

As described in Section 4.9.1.1 Regulatory Framework, the project site is not included on a list of hazardous materials sites pursuant to Government Code Section 65962.5. The impacts of lead-contaminated soils and ACMs/lead-based paint at the site would be reduced to less than significant with the implementation of mitigation measures MM HAZ-2.1 and MM HAZ-2.3. **(Less than Significant Impact with Mitigation Incorporated)**

e) If located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The project site is located approximately 3.2 miles from the San Martin Airport. The project site is not located within an Airport Influence Area or Federal Aviation Administration Height Restriction Area. Therefore, the project would not result in an airport safety hazard. **(No Impact)**

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The project would be constructed in accordance with current building and fire codes to ensure structural stability and safety. The site development plans would be reviewed by CalFire to ensure fire protection design features are incorporated and adequate emergency access is provided. For these reasons, operations of the proposed project would not interfere with the City-adopted Emergency Operations Plan, or any adopted statewide emergency response or evacuation plans. **(Less than Significant Impact)**

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

The project site is not located within a designated High Fire Hazard Severity Zone. As stated under Section 4.9.1.2 Existing Conditions, the project site is located adjacent to a High Fire Hazard Severity Zone. As discussed under checklist question f) above, CalFire would ensure the project incorporates fire protection design features and provides adequate emergency access, which would reduce potential impacts to less than significant levels. **(Less than Significant Impact)**

4.9.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant hazards and hazardous materials impact?

The geographic area for cumulative hazards and hazardous materials is the project site and adjacent parcels. There are no other development projects planned within the vicinity of the project site. With implementation of mitigation measures MM HAZ-1.1, MM HAZ-2.1, and MM HAZ-3.1, potential impacts from contaminated soils, ACMs, LBPs, and abandoned wells or sewer systems would be reduced to less than significant levels, and would not pose a hazard to the public or to the environment.

Further, the project would not result in an aircraft hazard given the project site is not located within an AIA of a Comprehensive Land Use Plan and meets FAA FAR Part 77 height restriction requirements for new structures. The project would, therefore, not result in significant cumulative impacts due to aircraft hazards when combined with the impacts of other projects. The project has no impacts related to emergency operations or wildfires. Therefore, the project does not have the potential to combine impacts related to these topics with other projects. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

4.10 Hydrology and Water Quality

The discussion below is based, in part, on a Flooding and Drainage Study completed by Schaaf & Wheeler on September 10, 2021, and a Phase I Environmental Site Assessment completed by Cornerstone Earth Group on October 20, 2020. Copies of these reports are included in this EIR as Appendices H and F, respectively.

4.10.1 Environmental Setting

4.10.1.1 *Regulatory Framework*

Federal and State

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws related to water quality in California. Regulations set forth by the EPA and the SWRCB have been developed to fulfill the requirements of this legislation. EPA regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into the waters of the United States (e.g., streams, lakes, bays, etc.). These regulations are implemented at the regional level by the Regional Water Quality Control Boards (RWQCBs). The project site is within the jurisdiction of the Central Coast RWQCB.

In May 2023, the U.S. Supreme Court's decision in Sackett vs. EPA narrowed federal wetland authority under the CWA, indicating that wetlands may be considered jurisdictional if they are adjacent to waters of the U.S. and have a continuous surface connection with those waters. This decision also affirmed that waters of the U.S. should be "relatively permanent", calling into question whether features such as ephemeral streams would be considered waters of the U.S. This federal court ruling had no impact on the state's regulation of wetlands discussed above under the Porter-Cologne Act.

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) established the National Flood Insurance Program (NFIP) to reduce impacts of flooding on private and public properties. The program provides subsidized flood insurance to communities that comply with FEMA regulations protecting development in floodplains. As part of the program, FEMA publishes Flood Insurance Rate Maps (FIRMs) that identify Special Flood Hazard Areas (SFHAs). An SFHA is an area that would be inundated by the one-percent annual chance flood, which is also referred to as the base flood or 100-year flood.

Statewide Construction General Permit

The State Water Resources Control Board (SWRCB) has implemented an NPDES General Construction Permit for the State of California (Construction General Permit). For projects disturbing one acre or more of soil, a Notice of Intent (NOI) must be filed with the RWQCB by the project sponsor, and a Storm Water Pollution Prevention Plan (SWPPP) must be prepared by a qualified professional prior to commencement of construction and filed with the RWQCB by the project sponsor. The Construction General Permit includes requirements for training, inspections, record keeping, and, for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Regional and Local

Phase II Small MS4 General Permit

Gilroy, Morgan Hill, and the portion of Santa Clara County that drains to the Pajaro River-Monterey Bay watershed, which includes the project site, are traditional permittees under the state's Phase II Small MS4 General Permit. Since these regions are located in RWQCB Region 3 (Central Coast Region), they are subject to the Central Coast Post-Construction Requirements per Provision E.12.k of the Phase II Permit. The Central Coast Post-Construction Requirements became effective in 2014 and are specific to the Central Coast Region. Post-construction controls are permanent features of a new development or redevelopment project designed to reduce pollutants in stormwater and/or erosive flows during the life of the project. Types of post-construction controls include low impact development (LID) site design, pollutant source control, stormwater treatment, and hydromodification management measures. The LID approach reduces stormwater runoff impacts by minimizing disturbed areas and impervious surfaces, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g. rainwater harvesting for non-potable uses).[63]

Water Resources Protection Ordinance and District Well Ordinance

Valley Water operates as the flood control agency for Santa Clara County. Their stewardship also includes creek restoration, pollution prevention efforts, and groundwater recharge. Permits for well construction and destruction work, most exploratory boring for groundwater exploration, and projects within Valley Water property or easements are required under Valley Water's Water Resources Protection Ordinance and District Well Ordinance.

Dam Safety

Since August 14, 1929, the State of California has regulated dams to prevent failure, safeguard life, and protect property. The California Water Code entrusts dam safety regulatory power to California

[63] City of Gilroy, City of Morgan Hill, and County of Santa Clara. *Stormwater Management Guidance Manual for Low Impact Development & Post-Construction Requirements*. June 2015.

Department of Water Resources, Division of Safety of Dams (DSOD). The DSOD provide oversight to the design, construction, and maintenance of over 1,200 in California.[64]

As part of its comprehensive dam safety program, Valley Water routinely monitors and studies the condition of each of its 10 dams. Valley Water also has its own Emergency Operations Center and a response team that inspects dams after significant earthquakes. These regulatory inspection programs reduce the potential for dam failure.

Construction Dewatering Waste Discharge Requirements

Each of the RWQCBs regulate construction dewatering discharges to storm drains or surface waters within its Region under the NPDES program and Waste Discharge Requirements.

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts to hydrology and water quality. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Hydrology and Water Quality

Policy	Description
SSI-16.2	**Drainage System Capacity.** Ensure that the level of detention or retention provided on the site of any new development is compatible with the capacity of the regional storm drainage system.
SSI-16.3	**Stormwater Management Plans.** Require a stormwater management plan for each proposed development, to be presented early in the development process and describe the design, implementation, and maintenance of the local drainage.

4.10.1.2 *Existing Conditions*

Hydrology

The City of Morgan Hill is divided into several hydrologically distinct drainage areas, with each having a system of conveyance facilities, pumps, and detention basins to collect and dispose the runoff. The stormwater runoff from these areas is collected and ultimately discharged into creeks that flow through the city and are tributary to either of the Monterey Bay or San Francisco Bay.[65]

The project site is located northeast of the intersection Hill Road and Barrett Avenue and there is an existing retention basin on the southwestern portion of the site. Tennant Creek bisects the project

[64] California Deapertment of Water Resources, Division of Safety of Dams. https://water.ca.gov/Programs/All-Programs/Division-of-Safety-of-Dams#:~:text=Since%20August%2014%2C%201929%2C%20the,Safety%20of%20Dams%20(DSOD). Accessed June 9, 2020.
[65] City of Morgan Hill. 2018 Storm Drainage System Master Plan. September 2018.

site from the northwest boundary to southwest boundary and there is a drainage feature on the northeast portion of the project site.

Existing On-Site Drainage

As stated above, the project site is bisected by Tennant Creek. Existing stormwater runoff across the project site presently drains in a generally northeasterly to southwesterly direction towards Tennant Creek. An existing stormwater retention basin is located just north of Barret Avenue. An existing 36-inch diameter reinforced concrete pipe (RCP) storm drain system is located along Sorrel Drive which provides local drainage immediately east of the site. The storm drain ties into a 60-inch diameter RCP storm drain system in Barrett Avenue which discharges to Tennant Creek where the creek crosses Barrett Avenue.

Groundwater

The site is located in the Santa Clara Valley Subbasin of the Santa Clara Valley Groundwater Basin. The site is within the Coyote Valley Recharge Area designated by the Santa Clara Valley Water District (Valley Water).[66] The site contains two creeks running through it; Tennant Creek along the western portion of the site and an unnamed ephemeral stream along the eastern portion of the site. According to the Phase I ESA prepared by Cornerstone Earth Group, groundwater lies at depths of approximately 30 to 50 feet beneath the project site.

Flood Hazards

The project site is located within three FEMA flood hazard designations: Zone AE, AO, and X. Zone AE is a special flood hazard area subject to inundation by the one percent annual chance flood with base flood elevation determined. The portion of the project site within Zone AE consists of Tennant Creek that crosses the western portion of the site. Zone AO is a special flood hazard area with flood depths of one to three feet (usually sheet flow on sloping terrain). On the project site, Zone AO consists of the overflow of Tennant Creek, and reaches depths of one foot. The Zone X designation is for areas of 0.2 percent (i.e., 500-year) chance flood; areas of one percent (i.e. 100-year) chance flood with average depths of less than one foot or with drainage areas less than one square mile. Surrounding areas adjacent to the site are in Zone D, an area of undetermined flood hazards. Flood zones are shown on Figure 4.10-1.

A seiche is an oscillation of the surface of a lake or landlocked sea varying in period from a few minutes to several hours. Anderson Lake is an enclosed body of water and is in the general vicinity of the project site (approximately 3.8 miles north of the project site). Anderson Dam is temporarily

[66] Santa Clara Valley Water District. *Groundwater Management Plan*. November 22, 2016. Accessed September 16, 2021. https://www.valleywater.org/your-water/where-your-water-comes-from/groundwater.

Source: USGS National Map: Orthoimagery: Data refreshed October, 2020.

Legend

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

Project Site

N

0 150' 600' 900' 1,500'

FLOOD ZONES ON PROJECT SITE

FIGURE 4.10-1

drained (limited to about three percent of its capacity) while the Anderson Dam Seismic Retrofit Project is underway.[67] The project site does not lie within a dam inundation area.[68]

A tsunami is a series of water waves caused by the displacement of a body of water, such as an ocean or a large lake. Due to the immense volumes of water and energy involved, tsunamis can devastate coastal regions. The project site does not lie within a tsunami inundation hazard area.[69]

4.10.2 Impact Discussion

For the purpose of determining the significance of the project's impact on hydrology and water quality, would the project:

1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    - result in substantial erosion or siltation on- or off-site;
    - substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    - create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    - impede or redirect flood flows?
4) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

[67] Valley Water. "Anderson Dam Seismic Retrofit Project." Accessed June 20, 2022. https://www.valleywater.org/project-updates/c1-anderson-dam-seismic-retrofit.
[68] California Department of Water Resources. "California Dam Breach Inundation Maps." Accessed June 28, 2023. https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2.
[69] California Emergency Management Agency. California Official Tsunami Inundation Map. Accessed September 16, 2021. https://www.conservation.ca.gov/cgs/tsunami/maps.

4.10.2.1 *Project Impacts*

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Construction Water Quality Impacts

As discussed in Section 4.10.1.1 above, the City of Morgan Hill is located within the jurisdiction of the Central Coast RWQCB, which is subjected to the Central Coast Post Construction Requirements under the State's Phase II Permit. New development projects are required to implement source control measures to reduce pollutants in stormwater.

There is the potential for water quality impacts to occur during project construction. In addition to generating dust, litter, oil, and other pollutants that could contaminate runoff from the site, construction activities would increase the potential for erosion and sedimentation to occur by disturbing and exposing underlying soil to the erosive forces of water and wind. Since construction of the proposed project would disturb more than one acre of soil, the project would be required to comply with the NPDES General Permit for Construction Activities.

In accordance with the City of Morgan Hill Conditions of Approval and the NPDES General Permit for Construction Activities, Conditions of Approval listed in Section 4.7 Geology and Soils, and the Conditions of Approval below would be included in the project to reduce construction-related water quality impacts to a less than significant level.

Required for New Development within this Planned Development: In accordance with the City of Morgan Hill Standard Conditions of Approval for Design Permit and the Construction General Permit, the following shall be included in the project to reduce construction-related water quality impacts to a less than significant level:

The following BMPs shall be implemented during project construction:

- Burlap bags filled with drain rock will be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities will be suspended during periods of high winds.
- All exposed or disturbed soil surfaces will be watered at least twice daily to control dust.
- Stockpiles of soil or other materials that can be blown by the wind will be watered or covered.
- All trucks hauling soil, sand, and other loose materials will be covered and all trucks will be required to maintain at least two feet of freeboard.
- All paved access roads, parking areas, staging areas and residential streets adjacent to the construction site will be swept daily (with water sweepers).

- Vegetation in disturbed areas will be replanted as quickly as possible.

Required for New Development within this Planned Development: In accordance with the City of Morgan Hill Standard Conditions of Approval for Design Permits and the Construction General Permit, the following condition shall be included in the project to reduce construction-related water quality impacts to a less than significant level:

- As required by the SWRCB Order No. 2022-0057-DWQ, construction activity resulting in a land disturbance of one acre or more of soil, or whose projects are part of a larger common plan of development that in total disturbs more than one acre, are required to obtain coverage under the NPDES General Permit No. CAS000002 for Discharges of Storm Water Associated with Construction Activity (General Permit). To be permitted with the SWRCB under the General Permit, owners must file a complete Notice of Intent (NOI) package and develop a Storm Water Pollution Prevention Plan (SWPPP) Manual in accordance with Section A, B, and C of the General Permit prior to the commencement of soil disturbing activities. A NOI Receipt Letter assigning a Waste Discharger Identification number to the construction site will be issued after the SWRCB receives a complete NOI package (original signed NOI application, vicinity map, and permit fee); copies of the NOI Receipt Letter and SWPPP shall be forwarded to the Building and Land Development Engineering Divisions review. The SWPPP shall be made a part of the improvement plans. (SWRCB NPDES General Permit CA000002).

With the implementation of the above Conditions of Approval, the project would not violate any water quality standards during construction and would reduce potential impacts to less-than-significant levels. **(Less than Significant Impact)**

Post-Construction Water Quality

Stormwater runoff from urban uses such as the proposed project contains metals, pesticides, herbicides, and other contaminants such as oil, grease, lead, and animal waste. The project would add 2,069,850 square feet of impervious surface area, for a total of 2,109,300 square feet of impervious area on the project site. The project would conform to the City's Stormwater Management Guidance Manual for LID and Post-Construction Requirements, which would ensure that increases in stormwater runoff pollutant loads, rates and volumes generated by the project's increase in impervious surface area on the site would be controlled through the implementation of pollutant source controls and LID-based treatment controls.[70]

The proposed project would include two bioretention basins, a detention basin[71], and three subsurface stormwater treatment areas for the treatment of runoff. The two bioretention basins

[70] City of Gilroy, City of Morgan Hill and County of Santa Clara. *Stormwater Management Guidance Manual for Low Impact Development and Post-Construction Requirements.* June 2015.

[71] A detention basin is a pond that has an orifice level at the bottom of the basin. Detention basins typically stay dry and do not have a permanent pool of water. A bioretention basin retains a permanent pool of water.

are located on the southeastern side of the site. One subsurface treatment area would be centrally located near the proposed pond, the second would be located below the proposed houses on the east, and the third would be located below the proposed houses on the southeast.

Conformance with the City's Stormwater Management Guidance Manual for LID and Post-Construction Requirements for implementing pollutant source controls and LID-based treatment controls would reduce impacts to post-construction water quality to a less than significant level. **(Less than Significant Impact)**

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Since the site is mostly undeveloped, new development would substantially increase impervious surfaces, which could impact groundwater recharge. However, the project would be required to implement site design measures, LID, and BMPs, which include infiltration features such as detention and retention basins, that would contribute to groundwater recharge and minimize stormwater runoff. The proposed pond and fountains would be filled using groundwater and would include a waterfall feature that would re-circulate water from the pond to the top of the waterfall. The project would require the pond to be pumped with approximately 0.36 acre-feet of non-potable water per year (118,000 gallons per year), with an evaporation rate of approximately 0.28 acre-feet per year (93,400 gallons per year). The pond would require a total of 0.64 acre-feet of water (211,400 gallons per year) in year one to both fill the pond and replenish to offset evaporative losses, and 0.28 acre-feet of water (93,400 gallons per year) per year in the following years to offset evaporative losses.

The highest depth to groundwater expected at the project site is 30 to 50 feet below ground surface. The maximum depth of excavation to install utilities building foundations proposed by the project is ten feet below ground surface. The groundwater is deep enough such that ground disturbance during construction would not interfere with groundwater flow or expose any aquifers. The project site is not an aquifer recharge facility (i.e., streams or ponds); therefore, development of the project site would not substantially interfere with aquifer recharge. **(Less than Significant Impact)**

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows?

Drainage

Under existing conditions, on-site runoff flows generally northeast to southwest towards Tennant Creek. Water then continues to Corralitos Creek and eventually drains to Monterey Bay. The proposed project would increase the site's impervious area from 39,450 square feet (one percent of the site) to 2,109,300 square feet (72 percent of the site), which would increase the runoff generated from the site into Tennant Creek.

The proposed project would construct a detention basin in Jackson Park, located adjacent to the northeast side of the site, to reduce post-project peak discharge to pre-project conditions to Tennant Creek under a 25-year storm event. Surface runoff created by the proposed project would be captured by the storm drain network and runoff which would be treated via the underground treatment systems and basins. Offsite runoff coming from tributary residential and open space areas would be rerouted through the detention basin, relocated at Jackson Park, to account for the increase in impervious area. The onsite storm drainpipe system would be designed for a 10-year storm event and the detention basin has been designed for a 25-year storm event. Additionally, the Drainage Report determined that a 100-year storm event in Tennant Creek would not result in flooding of the project site.

The proposed project will generally maintain the existing drainage patterns toward Tennant Creek because stormwater flowing from the project site would be captured by proposed stormwater networks and treated by subsurface treatment systems before entering the stormwater system and detention basin. The existing detention basin would be relocated to the northeast portion of the site, west of Jackson Park, to detain offsite flows so that the total flow to Tennant Creek post development will be the same as the existing flow under a 25-year storm event. Runoff from off-site, tributary residential and open space areas northeast of the project site would be rerouted through the proposed basin and collected in the proposed storm drain system, replacing an existing surface swale drainage feature at the eastern edge of the site. The detention basin would be designed to detain more water than necessary to compensate for the increase in flows caused by the proposed project.

Through the incorporation of drainage features and grading included in the proposed project, the flow rate of runoff would remain similar to the existing runoff and the creek water level would remain unchanged. Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or

river or through the addition of impervious surfaces and would have a less than significant impact. **(Less than Significant Impact)**

Hydromodification

The site experiences flooding and has led to mudslides in the past. During the construction phase, a Stormwater Pollution Prevention Plan (SWPPP) and a Stormwater Management Plan (SWMP) will be prepared to avoid on-site erosion. Within the proposed project, the amount of open space will be reduced due to the new residential development. However, the proposed detention basin on the northeastern corner of the site is designed to limit the 25-year site discharge to be at the existing condition rates by over detaining the upstream watersheds that contribute to flow to Tennant Creek. This results to no significant increase in channel velocity relative to the existing condition. In addition, the project site grades will be filled so that flows will be contained in Tennant Creek and there will be no runoff across the site. Therefore, since the risk of increased erosion is negligible the project would have a less than significant level with Conditions of Approval HYD-1 and HYD-2 incorporated as a result of the project. **(Less than Significant Impact)**

d) Would the project risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones?

Flood Flows

The project drainage improvements were analyzed in the Drainage Report, and it was determined that the proposed project would not result in changes to the upstream or downstream 100-year water surface profile of the creek. After construction, the proposed project would be located in two FEMA flood hazard designations. Zone AE, which would consist of Tennant Creek that crosses the western portion of the site, and Zone X. The Zone X designation is for areas of 0.2 percent (i.e. 500-year) chance flood; areas of one percent (i.e. 100-year) chance flood with average depths of less than one foot or with drainage areas less than one square mile. For areas within Zone AE that are not part of the channel's extent, the project site will be graded to be higher than the base flood elevation.

While the water surface elevations change throughout the site, the grading associated with the proposed project would re-establish the Tennant Creek floodway and floodplain which would relocate the 100-year flooding to ensure areas of the project development are located outside of the 100-year flood zone. The project would implement the standard below to ensure the project is developed outside of the floodplain.

Required for New Development within this Planned Development: The development shall apply for a Conditional Letter of Map Revision based on Fill through FEMA to show that the development is outside the floodplain. After construction, the proposed project would submit the modeling results in the Drainage Report in a Letter of Map Revision application to revise the floodplain extents over the project site.

With implementation of the standard discussed above, the proposed project would not redirect flood flows causing flooding on or off site. **(Less than Significant Impact)**

Tsunami and Seiche Risk

As discussed in Section 4.10.1.2, Anderson Lake is located approximately 3.8 miles north of the project site, and the project site does not fall within the dam failure inundation area. The project site is located significantly far enough away from the ocean where tsunami events would not affect the project site. The proposed pond's small size (0.5 acre) and irregular, organic shape would eliminate the risk of a large seiche occurring. Additionally, the proposed project does not involve the use or storage of pollutants beyond regular household chemicals. For these reasons, the project would not risk the release of pollutants due to project inundation. **(Less than Significant Impact)**

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Fertilizer and organic compounds are the likely pollutants of concern which can be found at the project site as the land was formerly used for agriculture. During construction of the project, short term impacts to water quality can occur when soils are disturbed, making it susceptible to water erosion and sedimentation. Other pollutants found during construction are petroleum products (gasoline, diesel, kerosene, oil, and grease), hydrocarbons from asphalt paving, paints, and solvents, detergents, nutrients (fertilizers), pesticides (insecticides, fungicides, herbicides, rodenticides), and trash. After construction, typical urban runoff contaminants may include the above constituents, as well as trace metals from pavement runoff, nutrients, and bacteria from pet wastes, and landscape maintenance debris.

Potential construction and post-construction pollutant impacts can be mitigated through preparation and implementation of an erosion control plan, a SWPPP and a SWMP consistent with recommended design criteria. The erosion control plan in the SWPPP would include components for erosion control, such as phasing of grading, limiting areas of disturbance, designation of restricted-entry zones, diversion of runoff away from disturbed areas, protective measures for sensitive areas, outlet protection, and provision for re-vegetation or mulching. The plan can also impose treatment measures to trap sediment per each catchment. The SWMP can implement postconstruction water quality BMPs that control pollutant levels to pre-development levels. Therefore, through compliance with established policies, the proposed project would have a less than significant impact. **(Less than Significant Impact)**

4.10.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant hydrology and water quality impact?

The geographic area for cumulative hydrology and water quality impacts is the East Little Llagas Creek drainage basin. Cumulative developments near the project would be subject to similar hydrological and urban runoff conditions. All projects occurring within Morgan Hill would be required to implement the same Conditions of Approval and measures related to construction water quality as the proposed project (including preparation of a SWPPP if disturbance if greater than one acre). In addition, all current and probable future projects that would disturb more than one acre of soil or replace/add more at least 10,000 square feet of impervious surfaces would be required to meet applicable Central Coast RWQCB requirements and the City's Storm Drainage Manual requirements on a project-specific basis. For these reasons, the cumulative projects, including the proposed project, would not result in significant cumulative hydrology or water quality impacts. (**Less than Significant Cumulative Impact)**

4.11 Land Use and Planning

4.11.1 Environmental Setting

4.11.1.1 *Regulatory Framework*

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts to land use and planning. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Land Use

Policy	Description
CNF-9.1	**Density Feathering from High to Low Densities.** Encourage feathering from higher urban densities to lower rural densities to occur within the City limits. Feathering should begin as development nears the Urban Growth Boundary.
CNF-17.3	**Buffer between Industrial and Incompatible Uses.** Ensure that all individual uses are well sited and buffered from incompatible uses; buffers may include offices adjacent to sensitive uses, landscaping, berms, etc.

4.11.1.2 *Existing Conditions*

The project site is largely undeveloped, and the ground is predominantly fallowed. There are four vacant structures, formerly used for agricultural purposes, totaling approximately 25,000 square feet on the southeastern portion of the site, surrounded by trees. The site is zoned as RDM and has a General Plan land use designation of Residential Detached Medium.

Residential Detached Medium areas allow detached homes on smaller lots, including courtyard homes, manufactured homes, and small-lot single-family homes. ADUs are allowed under this designation. Up to 25 percent of the total number of units in a project in the Residential Detached Medium designation may be duets. The Residential Detached Medium designation is dispersed throughout the City, often providing a transition from non-residential areas to lower-density neighborhoods. The largest areas with this designation are centered around East Dunne Avenue and West Main Avenue between Highway 101 and the railroad. This designation allows up to seven units per net acre.

4.11.2 Impact Discussion

For the purpose of determining the significance of the project's impact on land use and planning, would the project:

1) Physically divide an established community?

2) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

4.11.2.1 *Project Impacts*

a) Would the project physically divide an established community?

The proposed project would develop vacant land and would be connected to local surface streets via Hill Road and Barrett Avenue. This would not create new barriers such as roadways or walls which would prevent residents or local developments from reaching nearby services or other communities. Therefore, the proposed project would not result in impacts from the physical division of an established community. **(No Impact)**

a) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The proposed project includes a Zoning Amendment to add the Planned Development Combining District, which would allow a variety of unit types ranging from single-family detached units to multi-family attached units. With approval of this change, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation. **(Less than Significant Impact)**

4.11.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant land use and planning impact?

The geographic area for cumulative land use and planning impacts would be the project site and the surrounding neighborhood. There are no other development projects planned in the vicinity of the project site. The proposed project would not physically divide a neighborhood; therefore, it would not combine impacts to the neighborhood with other projects. The proposed project would implement applicable land use plans, policies, and regulations for the purpose of avoiding or mitigating environmental impacts. Therefore, the project would not result in a significant cumulative land use and planning impact. **(Less than Significant Cumulative Impact)**

4.12 Mineral Resources

4.12.1 Environmental Setting

4.12.1.1 *Regulatory Framework*

State

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act (SMARA) was enacted by the California legislature in 1975 to address the need for a continuing supply of mineral resources, and to prevent or minimize the negative impacts of surface mining to public health, property, and the environment. As mandated under SMARA, the State Geologist has designated mineral land classifications in order to help identify and protect mineral resources in areas within the state subject to urban expansion or other irreversible land uses which would preclude mineral extraction. SMARA also allowed the State Mining and Geology Board (SMGB), after receiving classification information from the State Geologist, to designate lands containing mineral deposits of regional or statewide significance.

California Geological Survey

As mandated by SMARA, the CGS has classified lands within the San Francisco-Monterey Bay region into Mineral Resource Zones (MRZs) based on the California State Mining and Geology Board guidelines. Areas with an MRZ-1 designation have sufficient information available indicating that there is little to no likelihood of significant mineral deposits. MRZ-2 areas are areas where adequate information indicates that significant deposits are present. Areas classified as MRZ-3 contain mineral deposits, but their significance cannot be evaluated from available data. Areas are classified as MRZ-4 where available information is inadequate for assignment to any other MRZ category.[72]

4.12.1.2 *Existing Conditions*

There are three areas within Morgan Hill classified as MRZ-3 zones, including the flood plains of Coyote Creek, the Franciscan Complex greenstone located at two small knolls near Anderson Dam and an area near Coyote Creek, and two small areas that lie on each side of a northwest-trending ridge that forms the western bank of Anderson Lake. The project site, which is not located in any of the MRZ-3 classified areas, is located in an area classified as MRZ-1.[73]

4.12.2 Impact Discussion

For the purpose of determining the significance of the project's impact on mineral resources, would the project:

[72] California Department of Conservation. *Guidelines for Classification and Designation of Mineral Lands*. N.d.
[73] California State Mining and Geology Board. *Mineral Land Classification Map for the Mount Sizer Quadrangle*. March 1983.

1) Result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state?
2) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

4.12.2.1 *Project Impacts*

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state?

As discussed under Section 4.12.1.2 Existing Conditions, the project site is located in an area classified by the California State Mining and Geology Board as MRZ-1, indicating that there is little to no likelihood of significant mineral deposits. Further, based on the United States Geological Survey map of mines and mineral resources, the project site is not comprised of known mineral resources or mineral resource production areas.[74] The General Plan does not identify the project site or area as a mineral resource recovery site. Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the residents in the state or region. **(No Impact)**

b) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

As discussed under checklist question a) above, the project would not result in the loss of availability of a locally important mineral resource recovery site. **(No Impact)**

4.12.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant mineral resources impact?

The geographic areas for cumulative mineral resources impacts are identified mineral recovery or resource areas in the County or nearby adjoining counties that support the regional economy. The project would have no impact on mineral resources. The project, therefore, would not contribute to a cumulative mineral resources impact. **(No Cumulative Impact)**

[74] United States Geological Survey. *Mineral Resources Online Spatial Data: Interactive maps and downloadable data for regional and global Geology, Geochemistry, Geophysics, and Mineral Resources.* Accessed June 8, 2021. https://mrdata.usgs.gov/general/map-us.html#home

4.13 Noise

The following discussion is based, in part, on a Noise and Vibration Assessment prepared for the project by Illingworth & Rodkin, Inc. (I&R) dated June 1, 2023. A copy of this report is included in Appendix I of this EIR.

4.13.1 Environmental Setting

4.13.1.1 *Background Information*

Noise

Factors that influence sound as it is perceived by the human ear, include the actual level of sound, period of exposure, frequencies involved, and fluctuation in the noise level during exposure. Noise is measured on a decibel scale, which serves as an index of loudness. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness. Because the human ear cannot hear all pitches or frequencies, sound levels are frequently adjusted or weighted to correspond to human hearing. This adjusted unit is known as the A-weighted decibel, or dBA.

Since excessive noise levels can adversely affect human activities and human health, federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. Noise guidelines are generally expressed using one of several noise averaging methods, including L_{eq}, DNL, or CNEL.[75] These descriptors are used to measure a location's overall noise exposure, given that there are times when noise levels are higher (e.g., when a jet is taking off from an airport or when a leaf blower is operating) and times when noise levels are lower (e.g., during lulls in traffic flows on freeways or in the middle of the night). L_{max} is the maximum A-weighted noise level during a measurement period.

Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Vibration amplitude can be quantified using Peak Particle Velocity (PPV), which is defined as the maximum instantaneous positive or negative peak of the vibration wave. PPV has been routinely used to measure and assess ground-borne construction vibration. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 inches/second (in/sec) PPV.

[75] L_{eq} is a measurement of average energy level intensity of noise over a given period of time. Day-Night Level (DNL) is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM. Community Noise Equivalent Level (CNEL) includes an additional five dB applied to noise occurring between 7:00 PM and 10:00 PM. Where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour L_{eq}.

4.13.1.2 *Regulatory Framework*

Federal

Federal Transit Administration Vibration Limits

The Federal Transit Administration (FTA) has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects. The FTA has proposed vibration impact criteria based on maximum overall levels for a single event. The impact criteria for groundborne vibration are shown in Table 4.13-1 below. These criteria can be applied to development projects in jurisdictions that lack vibration impact standards.

Table 4.13-1: Groundborne Vibration Impact Criteria

Land Use Category	**Groundborne Vibration Impact Levels (VdB inch/sec)**		
	Frequent Event	**Occasional Events**	**Infrequent Events**
Category 1: Buildings where vibration would interfere with interior operations	65	65	65
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime use	75	78	83

Source: Federal Transit Administration. *Transit Noise and Vibration Assessment Manual.* September 2018.

State and Local

California Building Standards Code

The CBC establishes uniform minimum noise insulation performance standards to protect persons within new buildings housing people, including hotels, motels, dormitories, apartments, and dwellings other than single-family residences. Title 24 mandates that interior noise levels attributable to exterior sources do not exceed 45 L_{dn}/CNEL in any habitable room. Exterior windows must have a minimum Sound Transmission Class (STC) of 40 or Outdoor-Indoor Transmission Class (OITC) of 30 when the property falls within the 65 dBA DNL noise contour for a freeway or expressway, railroad, or industrial source.

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts due to noise and vibration. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Noise and Vibration

Policy	Description
SSI-8.1	**Exterior Noise Level Standards.** Require new development projects to be designed and constructed to meet acceptable exterior noise level standards (as shown in Table SSI-1) as follows: • Apply a maximum exterior noise level of 60 dBA L_{dn} in residential areas where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing a L_{dn} of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, a L_{dn} of 65 dBA may be permitted.
SSI-8.2	**Impact Evaluation.** The impact of proposed development projects on existing land uses should be evaluated in terms of the potential for adverse community response based on significant increase in existing noise levels, regardless of compatibility guidelines.
SSI-8.5	**Traffic Noise Level Standards.** Consider noise level increases resulting from traffic associated with new projects significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.
SSI-8.6	**Stationary Noise Level Standards.** Consider noise levels produced by stationary noise sources associated with new projects significant if they substantially exceed existing ambient noise levels.
SSI-8.7	**Other Noise Sources.** Consider noise levels produced by other noise sources (such as ballfields) significant if an acoustical study demonstrates they would substantially exceed ambient noise levels.
SSI-8.9	**Site Planning and Design.** Require attention so site planning and design techniques other than sound walls to reduce noise impacts, including: a) installing earth berms; b) increasing the distance between the noise source and the receiver; c) using non-sensitive structures such as parking lots, utility areas, and garages to shield noise-sensitive areas; d) orienting buildings to shield outdoor spaces from the noise source; and e) minimizing the noise at its source.
SSI-9.1	**Techniques to Reduce Traffic.** Use roadway design, traffic signalization, and other traffic planning techniques (such as limiting truck traffic in residential areas) to reduce noise caused by speed or acceleration of vehicles.
SSI-9.2	**Noise Barrier Dimensions.** If noise barriers are deemed the only effective mitigation for development along major transportation corridors, require an acoustical analysis to determine necessary dimensions.
SSI-9.3	**Sound Wall Design.** The maximum height of sound walls shall be eight feet. Residential projects adjacent to the freeway shall be designed to minimize sound wall height through location of a frontage road, use of two sound walls or other applicable measures. Sound wall design and location shall be coordinated for an entire project area and shall meet Caltrans noise attenuation criteria for a projected eight-lane freeway condition. If two sound walls are used, the first shall be located immediately adjacent to the freeway right-of-way and the second shall be located as necessary to meet Caltrans noise requirements for primary outdoor areas. The minimum rear yard setback to the second wall shall be 20 feet.
SSI-9.5	**Noise Studies for Private Development.** In order to prevent significant noise impacts on neighborhood residents which are related to roadway extensions or construction of new roadways, require completion of a detailed noise study during project-level design to quantify noise levels generated by projects such as the Murphy Avenue extension to Mission View Drive and the Walnut Grove Extension to Diana Avenue. The study limits should include noise sensitive land uses adjacent to the project alignment as well as those along existing segments that would be connected to new segments. A significant impact would be identified where traffic noise

Morgan Hill 2035 General Plan Policies: Noise and Vibration

Policy	Description
	levels would exceed the "normally acceptable" noise level standard for residential land uses and/or where ambient noise levels would be substantially increased with the project. Project specific mitigation measures could include, but not be limited to, considering the location of the planned roadway alignment relative to existing receivers in the vicinity, evaluating the use of noise barriers to attenuate project-generated traffic noise, and/or evaluating the use of "quiet pavement" to minimize traffic noise levels at the source. Mitigation should be designed to reduce noise levels into compliance with "normally acceptable" levels for residential noise and land use compatibility.
SSI-9.6	**Earth Berms.** Allow and encourage earth berms in new development projects as an alternative to sound walls if adequate space is available.
SSI-9.7	**Sound Barrier Design.** Require non-earthen sound barriers to be landscaped, vegetated, or otherwise designed and/or obscured to improve aesthetics and discourage graffiti and other vandalism.

City of Morgan Hill Municipal Code

The City of Morgan Hill's Municipal Code Chapter 8.28 states that "It is unlawful for any person to make or continue, or cause to be made or continued, any loud, disturbing, unnecessary or unusual noise or any noise which annoys, disturbs, injures or endangers the comfort, health, repose, peace or safety of another person within the city." The following sections of the code would be applicable to the project:

1. "Construction activities" are defined as including but not limited to excavation, grading, paving, demolition, construction, alteration or repair of any building, site, street or highway, delivery or removal of construction material to a site, or movement of construction materials on a site. Construction activities are prohibited other than between the hours of seven AM and eight PM, Monday through Friday and between the hours of nine AM to six PM on Saturday. Construction activities may not occur on Sundays or federal holidays. No third person, including, but not limited to landowners, construction company owners, contractors, subcontractors, or employers, shall permit or allow any person working on construction activities which are under their ownership, control or direction to violate this provision. Construction activities may occur in the following cases without violation of this provision:

    a. In the event of urgent necessity in the interests of the public health and safety, and then only with a permit from the chief building official, which permit may be granted for a period of not to exceed three days or less while the emergency continues and which permit may be renewed for periods of three days or less while the emergency continues.

    b. If the chief building official determines that the public health and safety will not be impaired by the construction activities between the hours of eight PM and seven AM, and that loss or inconvenience would result to any party in interest, the chief

building official may grant permission for such work to be done between the hours of eight PM and seven AM upon an application being made at the time the permit for the work is issued or during the progress of the work.

c. The city council finds that construction by the resident of a single residence does not have the same magnitude or frequency of noise impacts as a larger construction project. Therefore, the resident of a single residence may perform construction activities on that home during the hours in this subsection, as well as on Sundays and federal holidays from nine AM to six PM, provided that such activities are limited to the improvement or maintenance undertaken by the resident on a personal basis.

d. Public work projects are exempt from this section and the public works director shall determine the hours of construction for public works projects.

2. If it is determined necessary in order to ensure compliance with this section, the chief building official may require fences, gates or other barriers prohibiting access to a construction site by construction crews during hours in which construction is prohibited by this subsection. The project manager of each project shall be responsible for ensuring the fences, gates or barriers are locked and/or in place during hours in which no construction is allowed. This subsection shall apply to construction sites other than public works projects or single dwelling units which are not a part of larger projects.

Chapter 18.76 establishes quantitative noise performance standards:

1. No land use or activity may produce a noise level in excess of the standards in
2. Table 4.13-2.

Table 4.13-2: Municipal Code Maximum Noise Levels

Receiving Land Use	Maximum Noise Level at Lot Line of Receiving Use
Industrial and Wholesale	70 dBA
Commercial	65 dBA
Residential or Public/Quasi-Public	60 dBA
Notes: The planning commission may allow an additional five dBA noise level at the lot line if the maximum noise level shown cannot be achieved with reasonable and feasible mitigation.	

3. Noise standards in
4. Table 4.13-2 do not apply to noise generated by vehicle traffic in the public right-of-way or from temporary construction, demolition, and vehicles that enter and leave the site of the noise-generating use (e.g., construction equipment, trains, trucks).

5. All uses and activities shall comply with Municipal Code Chapter 8.28 (Noise).

4.13.1.3 *Existing Conditions*

The noise environment at the project site and the surrounding vicinity results primarily from vehicular traffic along Hill Road. Additional existing noise sources in the vicinity include local traffic along other roadways and occasional flyovers associated with the nearby San Martin Airport and San José International Airport. I&R conducted a noise monitoring survey on-site in August 2021 to quantify the existing ambient noise conditions. The noise monitoring survey included two long-term measurements (LT-1 and LT-2) and two short-term measurements (ST-1 and ST-2). The noise monitoring locations are shown on Figure 4.13-1.

LT-1 was made approximately 75 feet east of the centerline of Hill Road. Hourly average noise levels at LT-1 typically ranged from 57 to 69 dBA L_{eq} during daytime hours (7:00 AM and 10:00 PM) and from 43 to 67 dBA L_{eq} during nighttime hours (10:00 PM and 7:00 AM). The day-night average noise level on Saturday, August 14th and Sunday, August 15th ranged from 63 to 64 dBA L_{dn}, and the day-night average noise level on Monday, August 16th was 67 dBA L_{dn}.

LT-2 was made at the eastern portion of the project site, at the end of Sorrel Drive. Hourly average noise levels at LT-2 typically ranged from 44 to 60 dBA L_{eq} during daytime hours and from 42 to 54 dBA L_{eq} during nighttime hours. The day-night average noise level on Saturday, August 14th and Sunday, August 15th ranged from 54 to 57 dBA L_{dn}, and the day-night average noise level on Monday, August 16th was 56 dBA L_{dn}.

Short-term noise measurements were made on Tuesday, August 17, 2021, between 8:20 AM and 8:50 AM in 10-minute intervals. The results of both measurements are summarized in Table 4.13-3. ST-1 was made along the northern boundary of the site, approximately 270 feet from the centerline of Hill Road. Typical traffic noise levels along Hill Road ranged from 50 to 58 dBA at ST-1. The 10-minute L_{eq} measured at ST-1 was 54 dBA. ST-2 was made outside of 2677 Barrett Avenue, approximately 65 feet northwest of the centerline of Barrett Avenue. Typical traffic noise levels along Barrett Avenue ranged from 54 to 70 dBA, and overhead jets generated noise levels up to 52 dBA at ST-2. The 10-minute L_{eq} measured at ST-2 was 53 dBA.

Table 4.13-3: Summary of Short-Term Noise Measurements (dBA)

Noise Measurement Location	Date, Time	Measured Noise Level, dBA					
		L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}
ST-1: Northern boundary of the project site, ~270 feet from the centerline of Hill Road	8/17/2021, 8:20-8:30 AM	60	58	56	54	50	54
ST-2: ~65 feet northwest of the centerline of Barrett Avenue	8/17/2021, 8:40-8:50 AM	70	64	57	46	43	53

NOISE MEASUREMENT LOCATIONS | FIGURE 4.13-1

4.13.2 Impact Discussion

For the purpose of determining the significance of the project's impact on noise, would the project result in:

1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
2) Generation of excessive groundborne vibration or groundborne noise levels?
3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

4.13.2.1 *Project Impacts*

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Construction of the proposed project would include temporary noise impacts from site preparation, grading, trenching, building exterior and interior, and paving. Noise impacts resulting from construction depend upon the noise generated by various pieces of equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), if the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

While noise thresholds for temporary construction are not provided in the City's General Plan or Municipal Code, the Federal Transit Administration includes daytime construction noise limits in the Transit Noise and Vibration Impact Assessment Manual from 2018. During daytime hours, an exterior threshold of 90 dBA L_{eq} shall be enforced at residential land uses and 100 dBA L_{eq} at commercial and industrial land uses. Therefore, the temporary construction noise impact would be considered significant if project construction activities produced noise levels exceeding 90 dBA L_{eq} at residential land uses.

The typical range of maximum instantaneous noise levels for the proposed project would be 70 to 90 dBA L_{max} at a distance of 50 feet from the equipment. For overall construction noise levels, multiple pieces of equipment used simultaneously would add together creating a collective noise source. To give a conservative estimate of construction noise levels, the worst-case hourly average

noise level for each phase was centered at the center of the project site and propagated to the nearest property line of the surrounding land uses. Table 4.13-4 shows the noise level estimates at the surrounding properties for each phase of construction.

The project would include several off-site improvements. The roadway extension along Sorrel Way would impact existing residences for a short period of time when work is in close proximity to the residences. Improvements along Barrett Avenue would be relatively minor and would not generate excessive noise levels. Construction of the roundabout would potentially result in elevated noise levels at the existing residences located at that intersection, and construction would generate hourly average noise levels ranging from 78 to 88 dBA L_{eq} for a limited time period. Hourly average noise levels generated by construction are about 72 to 88 dBA L_{eq} for residential developments measured at a distance of 50 feet from the center of a busy construction site. Construction-generated noise levels drop off at a rate of about six dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain often results in lower construction noise levels at distant receptors.

Construction activities would not exceed 90 dBA L_{eq} at nearby residences. Therefore, the project would have a less than significant construction noise impact at the nearest sensitive receptors. Construction activities would be conducted in accordance with the provisions of the City's General Plan and the Municipal Code, which limits temporary construction work to between the hours of 7:00 AM and 8:00 PM. Monday through Friday and between 9:00 AM to 6:00 PM on Saturday. Construction is prohibited on Sundays and federal holidays. Additionally, the project would be required to implement the following construction best management practices (BMPs) as a required standard for new development within this Planned Development.

Table 4.13-4: Estimated Construction Noise Levels at Nearby Land Uses

Phase of Construction	Time Duration (approximate)	Construction Equipment (Quantity)	Calculated Hourly Average Noise Levels, L_{eq} (dBA)				
			West Res. (940 ft)	North Res. (680 ft)	South Res. (790 ft)	East Res. (960 ft)	School (1,530 ft)
Demolition	Three months	Concrete/Industrial Saw (1), Excavator (3), Rubber-Tired Dozer (2)	61 dBA	64 dBA	63 dBA	61 dBA	57 dBA
Site Preparation	Two years	Rubber-Tired Dozer (3), Tractor/Loader/Backhoe (4)	62 dBA	65 dBA	64 dBA	62 dBA	58 dBA
Grading/Excavation	Six months	Excavator (2), Grader (1), Scraper (2), Rubber-Tired Dozer (1), Tractor/Loader/Backhoe (2)	63 dBA	66 dBA	64 dBA	63 dBA	59 dBA
Trenching/Foundation	Six months	Tractor/Loader/Backhoe (1), Excavator (1)	56 dBA	59 dBA	58 dBA	56 dBA	52 dBA
Building – Exterior	Five years	Crane (1), Forklift (3) Generator Set (1), Tractor/Loader/Backhoe (3), Welder (1)	61 dBA	63 dBA	62 dBA	60 dBA	56 dBA
Building – Interior/Architectural Coating	Four months	Air Compressor (1)	48 dBA	51 dBA	50 dBA	48 dBA	44 dBA
Paving	Four months	Paver (2), Paving Equipment – Roller (2), Roller (2)	61 dBA	64 dBA	63 dBA	61 dBA	57 dBA

Source: Illingworth & Rodkin. *Morgan Hill Devco Residential Project Noise and Vibration Assessment.* June 1, 2023.

Required for New Development within this Planned Development: The project applicant shall develop a noise construction control plan, which shall be submitted to the Development Services Director or Director's designee for review and approval prior to issuance of a grading or building permit. The noise construction control plan shall include but not be limited to the following construction best management controls:

- Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds);
- Impact tools (e.g., jackhammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools; and
- Stationary noise sources shall be located as far from noise-sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or include other measures.
- Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. Temporary noise barrier fences would provide a five dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps.
- Unnecessary idling of internal combustion engines shall be strictly prohibited.
- 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. Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
- Where feasible, temporary power service from local utility companies should be used instead of portable generators.
- Locate cranes as far from noise-sensitive receptors as possible.
- During final grading, substitute graders for bulldozers, where feasible. Wheeled heavy equipment are quieter than track equipment and should be used where feasible.
- Substitute nail guns for manual hammering, where feasible.
- Avoid the use of circular saws, miter/chop saws, and radial arm saws near the adjoining noise-sensitive receptors. Where feasible, shield saws with a solid screen with material having a minimum surface density of two pounds per square foot (e.g., such as 0.75-inch plywood).
- Maintain smooth vehicle pathways for trucks and equipment accessing the site, and avoid local residential neighborhoods as much as possible.
- During interior construction, the exterior windows facing noise-sensitive receptors should be closed.

- During interior construction, locate noise-generating equipment within the building to break the line-of-sight to the adjoining receptors.
- The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction schedule.

With implementation of the above standard as well as the Municipal Code limits on allowable construction hours, the project would not generate a substantial temporary increase in ambient noise levels (due to project construction) at noise-sensitive receptors in the project area, in excess of the City's noise standards. **(Less than Significant Impact)**

Operation

Policy SSI-8.5 of the City of Morgan Hill General Plan considers noise level increases resulting from new projects significant if: a) the noise level increase is five dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is three dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater. According to the 2035 noise contours included in the Morgan Hill 2035 Draft Environmental Impact Report, the surrounding residences would have future noise levels exceeding 60 dBA L_{dn}. Therefore, a significant impact would occur if the proposed project permanently increased ambient levels by three dBA L_{dn} in the project vicinity.

Project Traffic Increase

The traffic study completed for the proposed project included peak hour traffic volumes for 25 intersections in the project vicinity. The traffic volumes for the existing plus project scenario were compared to the traffic volumes for the existing scenario for all roadway segments included in the traffic study. A traffic noise increase of less than two dBA L_{dn} was calculated along each roadway segment included in the study. Therefore, the project-generated traffic noise would not result in a substantial, permanent noise level increase at noise-sensitive receptors.

Mechanical Equipment

Various mechanical equipment, such as heating, ventilation, and air conditioning (HVAC) units are typical for residential dwellings. At the time of this Draft EIR the type, size, number, and location of potential proposed HVAC units at the project site are unknown. Therefore, to give the most conservative noise estimate, each detached single-family residential unit is assumed to have an

HVAC unit located along the rear exterior building façades. In addition, the proposed 0.5-acre pond would include a fountain, which would be powered by electric pumps.

Typical noise levels produced by residential HVAC units would range from 53 to 63 dBA at three feet during operation. These types of units typically cycle on and off continuously during daytime and nighttime hours. Therefore, multiple units clustered in the same general vicinity are usually operating simultaneously at any given time. Assuming any given residential receptors surrounding the site would be exposed to up to three HVAC units operating simultaneously at any given time for a 24-hour period, the estimated day-night average noise level at three feet would be up to 74 dBA L_{dn}, assuming no privacy fences, sound walls, or enclosures.

The proposed detached single-family residences would be located along all boundaries of the site and would be facing existing residential uses. Existing residences located south of Barrett Avenue and west of Hill Road would be more than 100 feet from the nearest potential HVAC unit. However, adjoining residential property lines north of the site and east of the site would potentially be facing HVAC units and be located within 30 feet. Each of the existing residences adjoining the site to the north and to the east have existing privacy fences approximately five feet in height that would provide about five dBA reduction from the HVAC noise. Additionally, the nearby school would be approximately 185 feet from the nearest HVAC units. Calculated hourly average noise levels and day-night average noise levels at the receiving property lines of the surrounding receptors are summarized in Table 4.13-5. The estimated noise level increases due to mechanical equipment noise is also summarized in the table.

Table 4.13-5: Estimated Mechanical Equipment Noise Levels at Nearest Receptors

Receptor	Distance to Receiving Property Line	Hourly L_{eq}, dBA	L_{dn}, dBA	Noise Level Increase, dBA L_{dn}
North and East Residences	30 feet	43	49	0
South and West Residences	100 feet	37	44	0
Nearby School	185 feet	32	38	0

For all receiving receptors, noise levels generated by mechanical equipment noise at the project site would not exceed ambient noise levels at the receiving property lines. Additionally, the noise level increase due to mechanical equipment noise would not be measurable or detectable (0 dBA L_{dn} increase). Therefore, the total noise level increase generated by the proposed project would be less than two dBA L_{dn}. The project would not result in a substantial permanent noise level increase. **(Less than Significant Impact)**

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

The construction of the project may generate vibration when heavy equipment or impact tools are used. Construction activities would generally include demolition, site preparation work, foundation work, and new building framing and finishing. Pile driving, which can cause excessive vibration, is not anticipated as a foundation construction technique.

The California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards in order to reduce the potential for cosmetic damage to structures. Cosmetic damage includes cracked plaster, the opening of old cracks, and the loosening of paint or the dislodging of loose objects. A vibration limit of 0.3 in/sec PPV has been used for buildings that are found to be structurally sound but where structural damage is a major concern. Groundborne vibration levels exceeding 0.3 in/sec PPV at nearby buildings would have the potential to result in a significant vibration impact because such levels would be capable of cosmetically damaging adjacent buildings.

Construction vibration levels would vary depending on soil conditions, construction methods, and equipment. The nearest buildings surrounding the site range from five to 105 feet from the nearest boundaries of the project site, as summarized in Table 4.13-6 below. At these distances, construction vibration levels would potentially exceed 0.3 in/sec PPV at the existing residential structures to the north and to the east. All residences opposite Barrett Avenue and opposite Hill Road, as well as the school, would not be exposed to vibration levels exceeding the 0.3 in/sec PPV threshold.

Table 4.13-6: Vibration Source Levels for Construction Equipment

Equipment		PPV (in/sec)				
		Nearest Adjoining Res. Building North & East (5 ft)	**Farthest Adjoining Res. Building North & East (30 ft)**	**Res. Opposite Barrett Avenue (85 ft)**	**Res. Opposite Hill Road (105 ft)**	**School (90 ft)**
Clam shovel drop		**1.186**	0.165	0.053	0.042	0.049
Hydromill (slurry wall)	In soil	0.047	0.007	0.002	0.002	0.002
	In rock	0.100	0.014	0.004	0.004	0.004
Vibratory Roller		**1.233**	0.172	0.055	0.043	0.051
Hoe Ram		**0.523**	0.073	0.023	0.018	0.022
Large bulldozer		**0.523**	0.073	0.023	0.018	0.022
Caisson drilling		**0.523**	0.073	0.023	0.018	0.022
Loaded trucks		**0.446**	0.062	0.020	0.016	0.019
Jackhammer		0.206	0.029	0.009	0.007	0.009
Small bulldozer		0.018	0.002	0.001	0.001	0.001

Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., December 2021.

Project construction would generate vibration levels exceeding the 0.3 in/sec PPV threshold at the nearest adjoining residential building five feet away and at other buildings up to 20 feet away. Such vibration levels would be capable of cosmetically damaging the adjacent buildings.

Impact NOI-1: Project construction would generate vibration levels that could damage adjacent buildings.

Mitigation Measures: The project applicant shall implement the following mitigation measures to reduce vibration impacts to less than significant levels.

MM NOI-1.1: To address potential impacts related to vibration, the project shall implement the following vibration controls:

- Prohibit the use of heavy vibration-generating construction equipment within 25 feet of residences. Use a smaller vibratory roller, such as the Caterpillar model CP433E vibratory compactor, when compacting materials within 25 feet of residences to the north and east.
- Avoid dropping heavy equipment within 25 feet of residences. Use alternative methods, where feasible.

- Place operating equipment on the construction site as far as possible from vibration-sensitive receptors.
- Avoid using vibratory rollers or tampers within 25 feet of sensitive uses.
- Modify/design or identify alternative construction methods to reduce vibration levels below the limits.
- The contractor shall alert heavy equipment operators to the close proximity of the adjacent structures so they can exercise extra care.

Implementation of MM NOI-1.1 would reduce the project's vibration impacts to a less than significant level by ensuring that the minimum amount of vibration-generating equipment is used in proximity of the adjacent residences. **(Less than Significant Impact with Mitigation Incorporated)**

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

San Martin Airport is located about 3.2 miles southwest of the project site. According to the Santa Clara County Airport Land Use Commission's Comprehensive Land Use Plan for this airport[76], the project site lies outside the 2022 55 dBA CNEL noise contour. While aircraft flyovers would at times be audible at project site, noise levels due to aircraft would not result in future exterior noise levels of 60 dBA L_{dn}/CNEL or more, and therefore, both the exterior and interior noise levels resulting from aircraft would be compatible with the proposed project.

Norman Y. Mineta San José International Airport is over 20 miles northwest of the project site. The project site lies outside the 2037 noise contour figure for the airport, which is shown in the City's new Airport Master Plan Environmental Impact Report[77]. The proposed project would be compatible with the aircraft noise generated from the nearest airports. **(Less than Significant Impact)**

[76] Santa Clara County Airport Land Use Commission, "Comprehensive Land Use Plan Santa Clara County: South County Airport," September 10, 2008 and amended November 16, 2016.
[77] City of San José. Integrated Final Environmental Impact Report, Amendment to Norman Y. Mineta San Jose International Airport Master Plan, April 2020.

4.13.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant noise impact?

Cumulative noise impacts would include either cumulative traffic noise increases under future conditions or temporary construction noise from cumulative construction projects.

A significant cumulative traffic noise increase would occur if two criteria are met: 1) if the cumulative traffic noise level increase was three dBA L_{dn} or greater for future levels exceeding 60 dBA L_{dn} or was five dBA L_{dn} or greater for future levels at or below 60 dBA L_{dn}; and 2) if the project would make a "cumulatively considerable" contribution to the overall traffic noise increase. A "cumulatively considerable" contribution would be defined as an increase of one dBA L_{dn} or more attributable solely to the proposed project.

The traffic study prepared for the project included Year 2030 traffic volumes, with and without the project, and Year 2035 GP, with and without the project. When compared to the existing traffic volumes, several roadway segments resulted in future noise level increases of three dBA L_{dn} or more; however, these increases were calculated for scenarios with and without the project, which means the project would not result in a cumulatively considerable contribution. The traffic noise level increase at the project site would be up to 2 dBA L_{dn} under cumulative 2035 General Plan plus project buildout conditions. Therefore, the project would not result in a cumulative noise increase due to traffic.

There are no known approved projects surrounding the project site that would be constructed during the same timeframe as the proposed project. Therefore, the noise-sensitive receptors surrounding the project site would not be subject to cumulative construction impacts. **(Less than Significant Cumulative Impact)**

4.13.3 Non-CEQA Effects

Pursuant to *California Building Industry Association v. Bay Area Air Quality Management District, 62 Cal. 4th 369* (*BIA v. BAAQMD*), effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City of Morgan Hill has policies that address existing noise conditions affecting a proposed project. Policy SSI-8.1 and Table SSI-1 of the City's General Plan states that noise levels at outdoor use areas of residential land uses should be maintained below 60 dBA L_{dn} to be considered normally acceptable; this standard applies to common outdoor use areas but not private decks or balconies. For neighborhood parks and playgrounds, the exterior noise standard is 70 dBA L_{dn}. Interior noise levels should be maintained at 45 dBA L_{dn} for residential interiors.

The future noise environment at the site would continue to result primarily from vehicular traffic along Hill Road. According to the traffic study completed for the proposed project, the traffic noise

level increase at the project site would be up to two dBA L_{dn} under cumulative 2035 General Plan plus project buildout conditions.

Future Exterior Noise Environment

The proposed project includes single-family residences throughout the project site and age-restricted cottages and duets in the interior of the site. Each of the detached single-family homes would have backyards subject to the City's 60 dBA L_{dn} threshold. Additionally, several areas of open space are included at the project site. The site plan shows some of these open areas to include a walking trail, which is a transitory use that would not be subject to the City's exterior noise threshold as the exterior noise thresholds are typically enforced at locations where extended outdoor use would occur.

While most outdoor use areas would be set back from Hill Road, the backyards of residences located adjacent to the roadway would be exposed to the highest noise levels. Additionally, the backyards at the residences in the southwestern corner of the site would also have direct line-of-sight to Barrett Avenue, with setbacks of approximately 60 feet. The centers of these backyards would be set back from the centerline of Hill Road by 100 to 335 feet. The backyards of these four residences would be exposed to future exterior noise levels ranging from 61 to 68 dBA L_{dn} assuming no noise reduction from privacy fences or sound walls.

All other residences along Hill Road would have backyards set back 85 to 335 feet from the centerline of the roadway. Some of these backyards would receive partial shielding from the residences facing north and south. Future exterior noise levels would range from below 60 to 67 dBA L_{dn} assuming no noise reduction from privacy fences or sound walls.

One private open space area located on Parcel F would also have direct line-of-sight to Hill Road, with the center of the space set back approximately 290 feet. At this distance, future exterior noise levels would be at or below 61 dBA L_{dn} assuming no noise reduction from privacy fences or sound walls.

Residences with backyards set back 150 feet or more from Hill Road or open spaces set back beyond this distance would be partially shielded by intervening buildings and would be exposed to future exterior noise levels of 60 dBA L_{dn} or less.

Several outdoor amenities are located near the age-restricted cottages and duets. These outdoor use areas would be set back more than 900 feet from the centerline of Hill Road and would be mostly shielded by intervening buildings. These outdoor use areas would be exposed to future exterior noise levels below 60 dBA L_{dn}.

The future noise levels at the centers of the outdoor use areas associated with the residential component of the proposed project would exceed the City's normally acceptable threshold of 60 dBA L_{dn} at backyards nearest to Hill Road. Measures would be required to meet the City's exterior

noise limit. The project would be required to implement the following conditions of approval in order to meet the City's exterior noise threshold.

Required for New Development within this Planned Development:

- Where project design and setbacks cannot achieve acceptable noise decibels for outdoor private open space, the project shall include noise barriers along the residential property lines of the backyards and side yards consistent with the noise study and confirmed by a qualified noise consultant. The noise barriers shall break the line-of-sight from the backyards to Hill Road. The minimum height of these barriers shall be eight feet as measured from the pad elevation of each residence. The proposed barriers shall be continuous from grade to top, with no cracks or gaps, and have a minimum surface density of three lbs/ft^2 (e.g., one-inch-thick wood fence boards, half-inch laminated glass, concrete masonry units, or masonry).
- The final design of the noise barriers to be included shall be confirmed by a qualified noise consultant.

With the implementation of the conditions of approval above, the exterior noise environment would be below 60 dBA L_{dn} at each proposed residential backyard along Hill Road.

Future Interior Noise Environment

Standard residential construction provides approximately 15 dBA of exterior-to-interior noise reduction, assuming the windows are partially open for ventilation. Standard construction with the windows closed provides approximately 20 to 25 dBA of noise reduction in interior spaces. Where exterior noise levels range from 60 to 65 dBA L_{dn}, the inclusion of adequate forced-air mechanical ventilation is often the method selected to reduce interior noise levels to acceptable levels by closing the windows to control noise. Where noise levels exceed 65 dBA L_{dn}, forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of smaller window and door sizes as a percentage of the total building façade facing the noise source, sound-rated windows and doors, sound rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion. The nearest façades of the detached single-family residences adjoining Hill Road would be set back from the centerline of the roadway by approximately 60 to 165 feet. At these distances, the rooms facing Hill Road would be exposed to future exterior noise levels ranging from 66 to 71 dBA L_{dn}. Assuming windows to be partially open, future interior noise levels would range from 51 to 56 dBA L_{dn}.

Residential units located more than 180 feet from the centerline of Hill Road would be exposed to future exterior noise levels up to 65 dBA L_{dn}. Assuming windows to be partially open, future interior noise levels would be up to 50 dBA L_{dn}. Beyond this distance, which would include the age-restricted cottages and duets, residents would be exposed to future exterior noise levels at or below 60 dBA L_{dn} and future interior noise levels at or below 45 dBA L_{dn}.

To meet the interior noise requirements set forth by the State of California and the City of Morgan Hill of 45 dBA L_{dn}, implementation of noise insulation features would be required at residential buildings located within 180 feet of Hill Road.

Required for New Development within this Planned Development: The following noise insulation features shall be incorporated into the proposed project to reduce interior noise levels to 45 dBA L_{dn} or less at residential interiors:

- Provide a suitable form of forced-air mechanical ventilation, as determined by the Building Official, for all residential units on the project site, so that windows can be kept closed at the occupant's discretion to control interior noise and achieve the interior noise standards.
- A qualified acoustical consultant shall review the final site plan, building elevations, and floor plans prior to construction and recommend building treatments to reduce interior noise levels to 45 dBA L_{dn} or lower. Such methods or materials that would reduce interior noise levels may include a combination of smaller window and door sizes as a percentage of the total building façade facing the noise source, sound-rated windows and doors, sound-rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion. The specific determination of what noise insulation treatments are necessary shall be conducted on a unit-by-unit basis during final design of the project. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City, along with the building plans and approved design, prior to issuance of a building permit.

With implementation of the conditions of approval above, the future interior noise environment of the proposed residences would be reduced to 45 dBA L_{dn} or less.

4.14 Population and Housing

4.14.1 Environmental Setting

4.14.1.1 *Regulatory Framework*

State

Housing-Element Law

State requirements mandating that housing be included as an element of each jurisdiction's general plan is known as housing-element law. The Regional Housing Need Allocation (RHNA) is the state-mandated process to identify the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. California housing-element law requires cities to: 1) zone adequate lands to accommodate its RHNA; 2) produce an inventory of sites that can accommodate its share of the RHNA; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and a work plan to mitigate or eliminate those constraints; and 5) adopt a housing element and update it on a regular basis.[78] The City of Morgan Hill Housing Element and related land use policies were last updated in April 2015.

Senate Bill 330

On October 9, 2019, Governor Gavin Newsom signed into law Senate Bill (SB) 330, "The Housing Crisis Act of 2019." SB 330 prohibits local jurisdictions from enacting new laws that would have the effect of reducing the legal limit on new housing within their borders. SB 330 suspended Morgan Hill's voter approved growth control system, Measure, "S," until January 1, 2025. Under the new legislation, the local jurisdictions cannot manage the pace or number of housing permits issued each year. This bill, notwithstanding those provisions or any other law and with certain exceptions, requires that a housing development project only be subject to the ordinances, policies, and standards adopted and in effect when a preliminary application is submitted, except as specified.

Regional and Local

Plan Bay Area 2050

Plan Bay Area 2050 is a long-range transportation, land-use, and housing plan intended to support a growing economy, provide more housing and transportation choices, and reduce transportation-related pollution and GHG emissions in the Bay Area. Plan Bay Area 2050 promotes compact, mixed-use residential and commercial neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).[79]

[78] California Department of Housing and Community Development. "Regional Housing Needs Allocation and Housing Elements" Accessed September 16, 2021. http://hcd.ca.gov/community-development/housing-element/index.shtml.
[79] Association of Bay Area Governments and Metropolitan Transportation Commission. "Project Mapper." http://projectmapper.planbayarea.org/. Accessed September 16, 2021.

ABAG allocates regional housing needs to each city and county within the nine-county San Francisco Bay Area, based on statewide goals. ABAG also develops forecasts for population, households, and economic activity in the Bay Area. ABAG, MTC, and local jurisdiction planning staff created the Regional Forecast of Jobs, Population, and Housing, which is an integrated land use and transportation plan through the year 2050 (upon which Plan Bay Area 2050 is based).

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts to population and housing. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Population and Housing

Policy	Description
CNF-3.4	**Population Limit.** Plan for a January 1, 2035 population of 58,200 residents.
CNF-3.5	**Rate of Growth.** Maintain a steady and predictable annual growth consistent with the population limit.
CNF-3.6	**Adequate Services and Infrastructure.** Allow residential growth only if it is within the ability for the City to provide adequate public services and infrastructure for new development and the community at large.
CNF-3.7	**Jobs/Housing Balance.** Plan for residential growth that supports a healthy balance between residents and jobs located within Morgan Hill.
CNF-10.6	**Density Near Infrastructure.** Encourage higher residential densities at locations where convenient access and adequate infrastructure is readily available.
CNF-11.2	**Well-Designed Residential Neighborhoods.** Design residential neighborhoods so they are distinct and buffered from conflicting non-residential uses.
CNF-11.5	**Outside Connections.** Require new subdivisions to provide multiple connections to the surrounding community. Methods to achieve this may include: • Providing multiple points of entry into the projects for motorists, bicyclists and pedestrians. • Extending the existing street pattern at the edges of the subdivision into the site. Extended streets should match the type and scale of streets to which they connect. • Installing landscaping and street improvements at the edge of subdivisions that appear as common amenities shared with adjacent neighborhoods. • Minimizing the use of gates, fences, and walls that separate the subdivision from the surrounding community. • Planning for future connections to adjacent undeveloped property.
CNF-11.8	**Multi-Modal Transportation System.** Require new subdivisions to contain a network of streets, sidewalks, trails, and transit facilities that accommodate all modes of transportation. Methods to achieve this may include: • Incorporating complete streets designed for low vehicle speeds. • Planting trees along both sides of streets. • Installing bus stops, shelters, and benches in or adjacent to the project. • Providing safe walking and bicycling routes to schools, parks, and other youth destinations.

CNF-13.1	**Mixed Use Flex Development.** Encourage a mix of uses, either vertically or horizontally, to allow residents and employees to meet daily needs without the use of the private automobile.

4.14.1.2 *Existing Conditions*

Based on the California Department of Finance population estimates, the City's total population was approximately 46,451 in January 2022 and the average persons per household was an estimated 2.93.[80] The City's population slightly decreased from 46,626 to 46,451 (by approximately 0.4 percent) from January 2021 to January 2022. However, given the City's compliance with SB 330, the City's population is projected to increase in future years. . By 2035, the population would be estimated to reach 48,815 residents, 21,770 employed residents, 22,400 housing units, and 19,470 jobs based on the Association of Bay Area Governments' and MTC's Plan Bay Area and General Plan projections.[81]

4.14.2 Impact Discussion

For the purpose of determining the significance of the project's impact on population and housing, would the project:

1) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

4.14.2.1 *Project Impacts*

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

A project can induce substantial population growth by 1) proposing new housing beyond projected or planned development levels, 2) generating demand for housing as a result of new businesses, 3) extending roads or other infrastructure to previously undeveloped areas, or 4) removing obstacles to population growth (i.e., expanding capacity of a wastewater treatment plant beyond that necessary to serve planned growth).

[80] California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022. Accessed September 29, 2022 . https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/.
[81] Association of Bay Area Governments and MTC. Plan Bay Area Projections 2040. November 2018. Accessed September 29, 2022. https://mtc.ca.gov/sites/default/files/Projections_2040-ABAG-MTC-web.pdf.

The existing General Plan land use designation is Residential Detached Medium (up to seven dwelling units per acre), which allows for lower density multifamily residential uses. The project would construct 320 primary residential units including 223 single-family detached houses, 42 court-style houses, 21 senior cottages, and 34 senior duets, along with 44 ADUs, and could lead to a net increase in local population by approximately 975 residents (based on a rate of 2.93 persons per household for the primary residences (i.e. single-family houses, duets, and cottages) and 2 persons per household for the senior units and ADUs) compared to existing conditions.[82,83] Based on the City's General Plan, it was assumed that up to 336 single-family residential units would be developed on the project site, which would have accommodated up to approximately 985 residents.[84] The site is already designated for housing and the project's proposed number of residential units and residents would align with the General Plan assumptions. Additionally, housing is considered a critical need in the Bay Area, and 45 of the 320 proposed primary residential units would provide a housing option for seniors of the proposed development and City of Morgan Hill.

The projected growth of the project is evaluated by this EIR. Based upon the analysis completed in Sections 4.15 Public Services and 4.19 Utilities and Service Systems, the project would be adequately served by existing utilities and supported by existing public services.

Although the project would include improvements to Hill Road and Barrett Avenue, the project does not require the extension of roads; the project would connect to existing utilities and would not directly or indirectly impact substantial growth through the construction of public service facilities. Therefore, the project would not directly or indirectly induce substantial unplanned population growth in an area. **(Less than Significant Impact)**

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project site does not contain existing housing which would result in displacement of substantial numbers of existing people or housing. Additionally, the proposed project would construct 320 primary residential units and 44 ADUs, which would result in a net increase in housing on site. Therefore, the proposed project would have no impact on displacement of housing. **(No Impact)**

[82] California Department of Finance. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022. Accessed September 29, 2022. https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/.

[83] Based on California Department of Finance data, 2.93 persons per household were assumed for the 223 single-family detached houses and 42 court-style houses. 2.0 persons per household were assumed for the 21 senior cottages, 34 senior duets, and 44 ADUs.

[84] The anticipated growth reflected in the General Plan EIR does not presume the maximum development levels per the General Plan land use designation. The General Plan growth is based on a mid-point of the maximum development density on sites. Thus, the assumed General Plan buildout is less than what would occur if the site was built out at its maximum allowable density. The percentage of land subtracted from gross acreage to determine net acreage for density of a site varies depending on the location and specific zoning regulations, but typically falls between 20 and 30 percent. Because of the presence of Tennant Creek on the project site, 30 percent of land is subtracted from the developable area. 69 acres – 30% = 48 acres * 7 units/acre = 336 units. Source: Personal correspondence. Tiffany Brown, Senior Planner, City of Morgan Hill. September 11, 2023.

4.14.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant population and housing impact?

The geographic area for cumulative population and housing impacts is the City of Morgan Hill. The cumulative housing projects (including the Lillian Commons GPA that will include a 200-unit multi-family development, 1.2 miles west of the site) in the City would be consistent with the City's and SB 330's applicable land use policies aimed at increasing housing due to the state's housing crisis. The proposed project would contribute approximately 975 residents to the City of Morgan Hill (as assumed in the General Plan) over a construction timeframe of approximately five years. The City of Morgan Hill (based on the General Plan buildout) is estimated to have 22,400 housing units and 19,470 jobs (resulting in a jobs deficit and 0.87 jobs to housing ratio) by 2035. The addition of the project's 320 primary units and 200 units from the approved Lillian Commons project would result in a 0.85 jobs per housing unit, which would slightly increase the jobs deficit. However, the cumulative project would not result in a substantial increase in this deficit, which would be consistent with conditions forecast in the General Plan buildout.

The proposed project would align with what was assumed for the site under the General Plan and would not result in substantial unplanned growth. For this reason, the number of residents added by the project would not make a cumulatively considerable contribution to significant cumulative population and housing impacts. **(Less than Significant Cumulative Impact)**

4.15 Public Services

4.15.1 Environmental Setting

4.15.1.1 *Regulatory Framework*

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

Government Code Section 65995 through 65998

California Government Code Section 65996 specifies that an acceptable method of offsetting a project's effect on the adequacy of school facilities is the payment of a school impact fee prior to the issuance of a building permit. Government Code Sections 65995 through 65998 set forth provisions for the payment of school impact fees by new development by "mitigating impacts on school facilities that occur (as a result of the planning, use, or development of real property" (Section 65996[a]). The legislation states that the payment of school impact fees "are hereby deemed to provide full and complete school facilities mitigation" under CEQA (Section 65996[b]).

Developers are required to pay a school impact fee to the school district to offset the increased demands on school facilities caused by the proposed residential development project. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Regional and Local

Countywide Trails Master Plan

The Santa Clara County Trails Master Plan Update is a regional trails plan approved by the Santa Clara County Board of Supervisors. It provides a framework for implementing the County's vision of providing a contiguous trail network that connects cities to one another, cities to the county's regional open space resources, County parks to other County parks, and the northern and southern urbanized regions of the County. The plan identifies regional trail routes, sub-regional trail routes, connector trail routes, and historic trails.

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts to public services. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Public Services

Policy	Description
SSI-11.2	**Prevention through Design.** Promote police and fire security considerations in all structures by ensuring that crime and fire prevention concepts are considered in development and design.

4.15.1.2 *Existing Conditions*

Fire Protection

The City of Morgan Hill contracts with the California Department of Forestry and Fire Protection (CalFire) for fire and emergency medical services. The City is served by three stations at the following locations: 1) El Toro Fire Station, located at 18300 Old Monterey Road (approximately 2.7 miles northwest of the site), 2) Dunne Hill Fire Station, located at 2100 East Dunne Avenue (approximately 2.6 miles east of the project site), and 3) 15670 Monterey Street (approximately 1.4 miles south of the project site). The City has not adopted response time standards or goals related to fire suppression. In general, more than 90 percent of the calls handled by CalFire within Morgan Hill result in a travel time of six minutes or less.[85] Based on estimated driving times provided by Google Maps, the project site is located within five to ten minutes driving distance of the 15670 Monterey Street Fire Station.

Police Protection

Police service is provided to the project site by the City of Morgan Hill Police Department (MHPD). The MHPD facility is located at 16200 Vineyard Boulevard, approximately 1.8 miles west of the project site. The department employs 40 officers.[86] The Police Department's goal is to respond to Priority One calls within five minutes and Priority Two calls within eight minutes.[87] Priority One calls are reports of a crime in progress or where an injury has occurred, and Priority Two calls are reports of felonies and other major calls.

Schools

The project site is located within the Morgan Hill Unified School District. The District has eight elementary schools, two middle schools, two comprehensive high schools, one continuation high school, and a community adult school, as well as a home-schooling program. The nearest school to the site is Jackson Academy of Math and Music, located immediately north of the project site.

[85] Center for Public Safety Management. Fire Operational and Administrative analysis: Morgan Hill Fire Dept. and South Santa Clara County Fire District, California. Final Report. January 2017.
[86] Morgan Hill Police Department. Annual Report 2019. Accessed September 17, 2021. https://www.morgan-hill.ca.gov/archive.aspx?amid=&type=&adid=1796
[87] City of Morgan Hill. Morgan Hill 2035 General Plan DEIR, Section 4.13.2 Police Protection Services. January 2016.

Parks

The City owns 70 acres of developed park land and 59 acres of recreation facilities. The City maintains two community parks, five neighborhood parks, two neighborhood/school parks, and 15 mini-parks, in addition to its public trail system and open space. In addition to publicly owned park land, there is also a substantial amount of recreational land and open space in the City that is privately owned and maintained. The nearest park to the project site is Jackson Park, located directly north of the site.

The City also owns and operates special use facilities for recreational purposes. These facilities include the Morgan Hill Aquatics Center, Community and Cultural Center, the Centennial Recreation Center, the 38-acre Outdoor Sports Center, and Skateboard/BMX park. Many sports leagues and teams use Morgan Hill School District facilities after school hours and on weekends. These facilities include 12 baseball/softball fields, two football fields, two tracks, and four swimming pools. The nearest park and recreational facilities to the project site are the Morgan Hill Aquatics Center (16200 Condit Road) and the Morgan Hill Outdoor Sports Center (located at 16500 Condit Road). Both are located less than one mile west of the project site.

4.15.2 Impact Discussion

For the purpose of determining the significance of the project's impact on public services, would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

1) Fire protection?
2) Police protection?
3) Schools?
4) Parks?
5) Other public facilities?

4.15.2.1 *Project Impacts*

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services?

Development of the project would be completed in conformance with current building and fire codes, including features that would reduce potential fire hazards. The project would result in an estimated increase in the local population of approximately 975 persons, which is in line with what was assumed for the site under the General Plan. As a result, there would be an incremental increase in demand on CalFire. However, response times for fire protection services would not be substantially lowered as a result of the proposed project, due to its location in an urban area of Morgan Hill, nor would the project require construction of new facilities to ensure adequate service to the surrounding areas. The development would be reviewed by CalFire to ensure appropriate safety features to reduce fire hazards are included in the project. Given that the proposed project is surrounded by existing development, the proposed project would not substantially increase the demand for fire protection, or otherwise require construction or expansion of fire facilities. **(Less than Significant Impact)**

b) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services?

The development of the project site with 320 primary residential units and 44 ADUs (or an increase in 975 persons, which is in line with what was assumed for the site under the General Plan) would incrementally increase the need for police and protection services. However, this increase is not expected to be substantial. The MHPD would review the development plans to ensure safety features to reduce the risk of criminal activity are incorporated into the project design. Therefore, the proposed project would not result in a significant increase in demand for police services or require the expansion or construction of police facilities. The project's potential impact on police services would be less than significant and would not require new or physically altered police facilities. **(Less than Significant Impact)**

c) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?

The proposed project would add 320 primary residential units and 44 ADUs, which would result in a population growth of approximately 975 persons, which is in line with what was assumed for the site under the General Plan. The MHUSD has estimated elementary, middle, and high school student generation rates for residential units. Table 4.15-1 includes the estimated student generation rates and enrollment (years 2021 to 2022) for the project's assigned schools in the MHUSD.

Table 4.15-1: Student Generation Rates and Capacity

Schools	Student Generation Rate[1]	Number of Students Generated[2]	Current Enrollment	Enrollment Capacity
Jackson Academy	0.212	56	616	649
Britton Middle School	0.101	27	657	807
Live Oak High School	0.152	40	1,157	1,515

[1] Source: Steve Betando, Superintendent. *Morgan Hill Unified School District Demographic Study 2018/19.* January 2019.

[2] Student generation is calculated based on the 223 single-family detached houses and 42 court-style houses (265 units) proposed by the project. It is assumed the 21 senior cottages, 34 senior duets, and 44 ADUs would not generate students.

As shown in Table 4.15-1, using the MHUSD's student generation rates per unit for housing, the project would generate approximately 166 students. The project would not result in an exceedance of enrollment capacity at Britton Middle School or Live Oak High School. The project could result in an exceedance of Jackson Academy's enrollment capacity by 23 students. However, as required by state law (Government Code Section 65996) and the City's Municipal Code Chapter 18.144, the project proponent shall pay the appropriate school impact fees to offset the increased demands on school facilities caused by the project. The payment of impact fees to provide funding for new or altered school facilities to accommodate the additional students would fully mitigate the impacts of new development on schools. The MUHSD would serve as the lead agency for the environmental review of any physical improvements proposed to the Jackson Academy to accommodate the students. Therefore, the project would not result in substantial adverse impact on school facilities. **(Less Than Significant Impact)**

d) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?

The City of Morgan Hill provides and maintains parkland and open space within the City for residents and visitors to enjoy. It is estimated that the project would generate approximately 975 net new residents compared to existing conditions (which aligns with the General Plan assumptions for the project site). The project residents would be served by existing parks in the project area and other open space and recreational facilities in the region. Additionally, the project proposes approximately four acres of public open space (1.71 acres on-site and 2.19 acres dedicated off-site) and approximately six acres private recreational space within the project area for residents in excess of Morgan Hill's planned park service ratios (see Section 4.16 for further information). Therefore, the proposed project would not result in a need for provision of new or expanded park facilities to maintain acceptable service ratios of park facilities. **(Less Than Significant Impact)**

e) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for other public facilities?

It can be reasonably expected that new residents of the proposed project would utilize nearby libraries and community centers. The demand on libraries and community centers in the area would be marginally increased as a result of the projected 975 new residents (which aligns with the General Plan assumptions for the project site). However, demand for these facilities would not necessitate the construction of new facilities, or expansion of existing facilities, to accommodate future residents of the project. The existing libraries and community centers in Morgan Hill would be equipped to provide services to new residents of the proposed project. **(Less than Significant Impact)**

4.15.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant public services impact?

The geographic area for cumulative public services impacts is the City of Morgan Hill. Although the cumulative projects (including the proposed project and approved Lillian Commons project) would result in an increased demand on the public services in the City the proposed project would provide payment of needed fees and is located near other urban development already served by existing public services. While the project would increase the use of local facilities, the project would not

require the construction of new facilities beyond what was analyzed in the General Plan FEIR. Additionally, the City has funded a Public Safety Master Plan which serves for planning fire and police protection services for the incremental expansion of development in the City of Morgan Hill. Therefore, the proposed project would result in less than significant cumulative impacts on police and fire services in the City of Morgan Hill.

In addition to fire and police service, under Section 65995 of the California Government Code, the payment of impact fees is deemed to fully mitigate the impacts of new development on school facilities. Therefore, cumulative impacts related to school facilities would be less than significant. The proposed project would also put additional demand on libraries in the City of Morgan Hill, however the Santa Clara County Library Strategic Plan provides a plan for expansion commensurate to population growth in areas around the libraries. Therefore, the proposed project would not cumulatively contribute to significant impacts to library resources in the City of Morgan Hill. **(Less than Significant Cumulative Impact)**

4.16 Recreation

4.16.1 Environmental Setting

4.16.1.1 *Regulatory Framework*

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

4.16.1.2 *Existing Conditions*

The City owns 70 acres of developed park land and 59 acres of recreation facilities. The City maintains two community parks, five neighborhood parks, two neighborhood/school parks, and 15 mini-parks, in addition to its public trail system and open space. In addition to publicly owned park land, there is also a substantial amount of recreational land and open space in the City that is privately owned and maintained. The nearest park to the project site is Jackson Park, located adjacent to the project site to the northeast.

The City also owns and operates special use facilities for recreational purposes. These facilities include the Morgan Hill Aquatics Center, Community and Cultural Center, the Centennial Recreation Center, the 38-acre Outdoor Sports Center, and Skateboard/BMX park. Many sports leagues and teams use Morgan Hill School District facilities after school hours and on weekends. These facilities include 12 baseball/softball fields, two football fields, two tracks, and four swimming pools. There is no recreational land on site.

4.16.2 Impact Discussion

For the purpose of determining the significance of the project's impact on recreation:

1) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
2) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

4.16.2.1 *Project Impacts*

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The proposed project would result in the creation of 320 new primary residential units and 44 ADUs on the project site and would contribute approximately 975 residents to the site.[88] Morgan Hill has established a level of service standard of five acres of parkland per 1,000 residents, therefore, the proposed project would be required to provide 4.8 acres of open space. The proposed project would provide approximately two acres of public parkland, two acres of public trail segments, and four acres of private open space. The project provides more recreational area than would be required for the development and would result in less than significant impacts on existing regional facilities because the new residents would be able to access the other recreational facilities. **(Less than Significant Impact)**

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The construction of the proposed project would include the open space recreational areas described in Section 4.2.2 Open Space and Recreation. The impacts (e.g., construction related water quality impacts, nesting birds, cultural resources, construction-related vibration noise, hazards and hazardous materials) from construction of the proposed recreational areas would be reduced to less than significant levels with the implementation of conditions of approval and mitigation measures described throughout this EIR. Therefore, construction of on-site recreational facilities would not result in an adverse physical effect on the environment. **(Less than Significant Impact)**

4.16.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant recreation impact?

The geographic area for cumulative recreation impacts is the City of Morgan Hill. The proposed project would contribute four acres of public open space to the total Morgan Hill parks inventory, which meets the City's parkland dedication fee requirement for residential projects. Development in the City would increase demand for recreational facilities. All cumulative projects that create additional demand for park facilities would be subject to policies and regulations associated with the provision of new parkland to serve their future residents (such as payment of in-lieu park fees).

[88] Based on California Department of Finance data, 2.93 persons per household were assumed for the 223 single-family detached houses and 42 court-style houses. 2.0 persons per household were assumed for the 21 senior cottages, 34 senior duets, and 44 ADUs.

Although the project proposes to increase the residential density on-site above the current General Plan, the project would comply with the parkland dedication requirements/in-lieu park fees and would not result in cumulative public services or recreation impacts. **(Less than Significant Cumulative Impact)**

4.17 Transportation

The following discussion is based, in part, on a Transportation Analysis prepared for the project by Hexagon Transportation Consultants, Inc. (Hexagon) dated May 22, 2023. A copy of this report is included in Appendix J of this EIR.

4.17.1 Environmental Setting

4.17.1.1 *Regulatory Framework*

State

Regional Transportation Plan

MTC is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including Santa Clara County. MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and ABAG adopted Plan Bay Area 2050 in October 2021, which includes a Regional Transportation Plan to guide regional transportation investment for revenues from federal, state, regional and local sources through 2050.

Senate Bill 743

SB 743 establishes criteria for determining the significance of transportation impacts using a VMT metric intended to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. Specifically, SB 743 requires analysis of VMT in determining the significance of transportation impacts. Local jurisdictions were required by Governor's OPR to implement a VMT policy by July 1, 2020.

SB 743 did not authorize OPR to set specific VMT impact thresholds, but it did direct OPR to develop guidelines for jurisdictions to utilize. CEQA Guidelines Section 15064.3(b)(1) describes factors that might indicate whether a development project's VMT may be significant. Notably, projects located within 0.50 mile of transit should be considered to have a less than significant transportation impact based on OPR guidance.

Regional and Local

Congestion Management Program

VTA oversees the Congestion Management Program (CMP), which is aimed at reducing regional traffic congestion. The relevant state legislation requires that urbanized counties in California prepare a CMP in order to obtain each county's share of gas tax revenues. State legislation requires that each CMP define traffic LOS standards, transit service standards, a trip reduction and transportation demand management plan, a land use impact analysis program, and a capital

improvement element. VTA has review responsibility for proposed development projects that are expected to affect CMP-designated intersections.

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts related to transportation. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Transportation

Policy	Description
TR-3.2	**Safe and Complete Improvements.** Avoid creating incomplete public improvements that create public safety hazards.
TR-3.4	**Level of Service Standards.** As the Level of Service (LOS) policy and design criteria for roadway improvements, use a Tiered LOS Standard as follows: • LOS F in the Downtown at Main/Monterey, along Monterey Road between Main and Fifth Street, and along Depot Street at First through Fifth Streets. This LOS standard in the Downtown recognizes the unique nature of and goals for Downtown Morgan Hill as the transit hub of the City and as a center for shopping, business, entertainment, civic and cultural events, and higher-density, mixed-use living opportunities. This standard does not preclude the City, developers, and property owners from voluntarily implementing improvements and employing operational strategies to improve level of service, especially at the Main/Monterey intersection, if and when land uses redevelop. • LOS D for intersections and segments elsewhere; except: o Allow LOS E for identified freeway ramps/zones, road segments and intersections that (1) provide a transition to and are located on the periphery of downtown; (2) are freeway zone intersections; and/or (3) where achieving LOS D could result in interim intersection improvements which would be "over-built" once the City's circulation network has been completed, and/or would involve unacceptable impacts on existing buildings or existing or planned transportation facilities, including roads, sidewalks, bicycle and transit facilities; and/or would involve extraordinary costs to acquire land and existing buildings, and build the improvement in relation to benefits achieved; and/or the facility would be widened beyond requirements to serve local traffic, in that the facility accommodates a significant component of peak-hour sub-regional and regional through-traffic. • In order to reduce the incentive for regional travel to be drawn off the freeway and onto local neighborhood streets, protect neighborhoods, avoid overbuilding intersections, and to create an incentive for using alternate modes of travel, LOS E during peak hours of travel is acceptable for the following identified freeway ramps, road segments, and intersections: o Main Avenue and Del Monte Avenue o Main Avenue and Depot Street o Dunne Avenue and Del Monte Avenue o Dunne Avenue and Monterey Avenue o Dunne Avenue and Church Street; also, until closed: Dunne Avenue and Depot Street o Cochrane Road and Monterey Road o Tennant Avenue and Monterey Road o Tennant Avenue and Butterfield Boulevard o Cochrane Road Freeway Zone: from o Madrone Parkway/Cochrane Plaza to

Morgan Hill 2035 General Plan Policies: Transportation

Policy	Description
	o Cochrane/DePaul Drive o Dunne Avenue Freeway Zone: from Walnut o Grove/East Dunne to Condit/East Dunne o Tennant Avenue Freeway Zone: from o Butterfield/Tennant to Condit/Tennant o Freeway Ramps Projects shall pay the City's standard traffic impact fees imposed on new developments in accordance with the adopted impact fee schedule.
TR-9.10	**Sidewalk Connectivity.** Improve sidewalk connectivity by installing new sidewalks where they do not exist, consistent with the Trails and Natural Resources Master Plan.

4.17.1.2 *Existing Conditions*

Roadway Network

Regional Access

US 101 is a north-south freeway extending northward to San Francisco and southward through Gilroy. US 101 is an eight-lane freeway (consisting of three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction) north of Cochrane Road. South of Cochrane Road, it is a six-lane freeway with no HOV lanes. Access to and from the project site is provided via its interchanges at Dunne Avenue and Tennant Avenue.

Local Access

Dunne Avenue is designated as an arterial street per the City's General Plan and transverses the City extending from the east part of town to the west with a posted speed limit of 35 to 40 mph and sidewalks along both sides of the street in the project vicinity. Bike lanes are provided along both sides of Dunne Avenue between Peak Avenue and Gallop Drive (east of US 101). Access to the project site is provided via its intersections with Hill Road and Sorrel Way.

Tennant Avenue is designated as an arterial road west of Hill Road and as a collector east of Hill Road per the City's General Plan and is a two-lane east-west roadway with a posted speed limit of 45 mph. There are no bike lanes or sidewalks provided on either side of the street in the project vicinity. Access to the project site is provided via its intersection with Hill Road.

Condit Road is a two-lane north-south roadway that extends from Diana Avenue southward to Middle Avenue. Access to the project site is provided via its intersections with Dunne Avenue and San Pedro Avenue.

Murphy Avenue is a two-lane north-south roadway that extends from Half Road southward to Tennant Avenue. Access to the project site is provided via its intersections with Dunne Avenue, San Pedro Avenue, and Barrett Avenue.

Hill Road is designated as an arterial in the project vicinity per the City's General Plan and is a two-lane north-south undivided roadway that extends from Maple Avenue to Main Avenue. Hill Road has a posted speed limit of 40 mph with bike lanes between Dunne Avenue and Diana Avenue. Sidewalks are only provided adjacent to the existing residential developments along Hill Road near Dunne Avenue. Access to the project site is provided via its intersections with Barrett Avenue and Fountain Oaks Drive.

San Pedro Avenue is designated as a collector per the City's General Plan and is an east-west two-lane undivided roadway that extends from Monterey Road eastward to just west of US 101, then it continues again on the east side of US 101 to its terminus point at Hill Road. East of US 101, San Pedro Avenue has a posted speed limit of 30 mph. Access to the project site is provided via its intersection with Hill Road.

Barrett Avenue is designated as a local street in the project vicinity per the City's General Plan and is an east-west two-lane undivided roadway that extends from Railroad Avenue eastward to just west of US 101. East of US 101, Barrett Avenue continues eastward from west of Murphy Avenue to Trail Drive, in the east foothills, where it terminates. East of US 101, Barrett Avenue has a posted speed limit of 30 mph with no bike lanes or sidewalks on both sides of the street. Direct access to the project site would be provided via its intersections with Sorrel Drive and two new roadways connected to the proposed on-site street network.

Sorrel Way/Sorrel Drive is designated as a local street in the project vicinity per the City's General Plan and is a north-south two-lane residential roadway with a 25-mph posted speed limit that extends southward from Dunne Avenue to its terminus point just south of Fountain Oaks Drive. Sorrel Way becomes Sorrel Drive and ends at Barrett Avenue. The project site cuts through Sorrel Way/Sorrel Drive and creates a short 600-foot discontinuity.

Fountain Oaks Drive is designated as a collector in the project vicinity per the City's General Plan and is an east-west two-lane residential roadway with a 25-mph posted speed limit that extends from Hill Road to its terminus point just west of Dunne Avenue. Access to the project site is provided via its intersections with Fountain Avenue and Sorrel Way.

Fountain Avenue is designated as a local street in the project vicinity per the City's General Plan and is a short 400-foot north-south roadway that runs between Fountain Oaks Drive and the project site. The on-site street network is proposed to be connected to Fountain Avenue to provide access between Hill Road and the project site.

Existing Bicycle, Pedestrian, and Transit Facilities

Bicycle Facilities

Bicycle facilities in the project area consist of Class II bikeways, defined as striped bike lanes on the street. Bike lanes are provided along Dunne Avenue west of Gallop Drive, Hill Road between Dunne Avenue and Diana Avenue, and Murphy Avenue between Dunne Avenue and Kelly Park Circle. An

unpaved bike path, the Madrone Channel Trail, runs along the east side of the US 101, between Tennant Avenue and Cochrane Road.

The remaining bicycle facilities in the area are located west of US 101. Bike lanes are currently provided along the following roadways:

- Butterfield Boulevard, along its entire length;
- Sutter Boulevard, between Cochrane Road and Butterfield Boulevard;
- Central Avenue, between Butterfield Boulevard and its termination point west of US 101;
- Main Avenue, between Peak Avenue and Live Oak High School driveway;
- Monterey Road, nearly its entire length within City of Morgan Hill limits, with the exception of the segment that runs through downtown between Dunne Avenue and Main Avenue;
- Tennant Avenue, between Condit Road and Olympic Drive;
- Depot Street, along its entire length;
- Hale Avenue, between Main Avenue and north of the City of Morgan Hill.

Other bicycle facilities in the project vicinity include the following:

- A bike route on Monterey Road, between Dunne Avenue and Main Avenue;
- A paved bike path on the east side of Butterfield Boulevard, between San Pedro Avenue and Central Avenue;
- Along the west bank of Little Llagas Creek, extending from Watsonville Road north to Spring Avenue.

The existing bicycle facilities are shown on Figure 4.17-1.

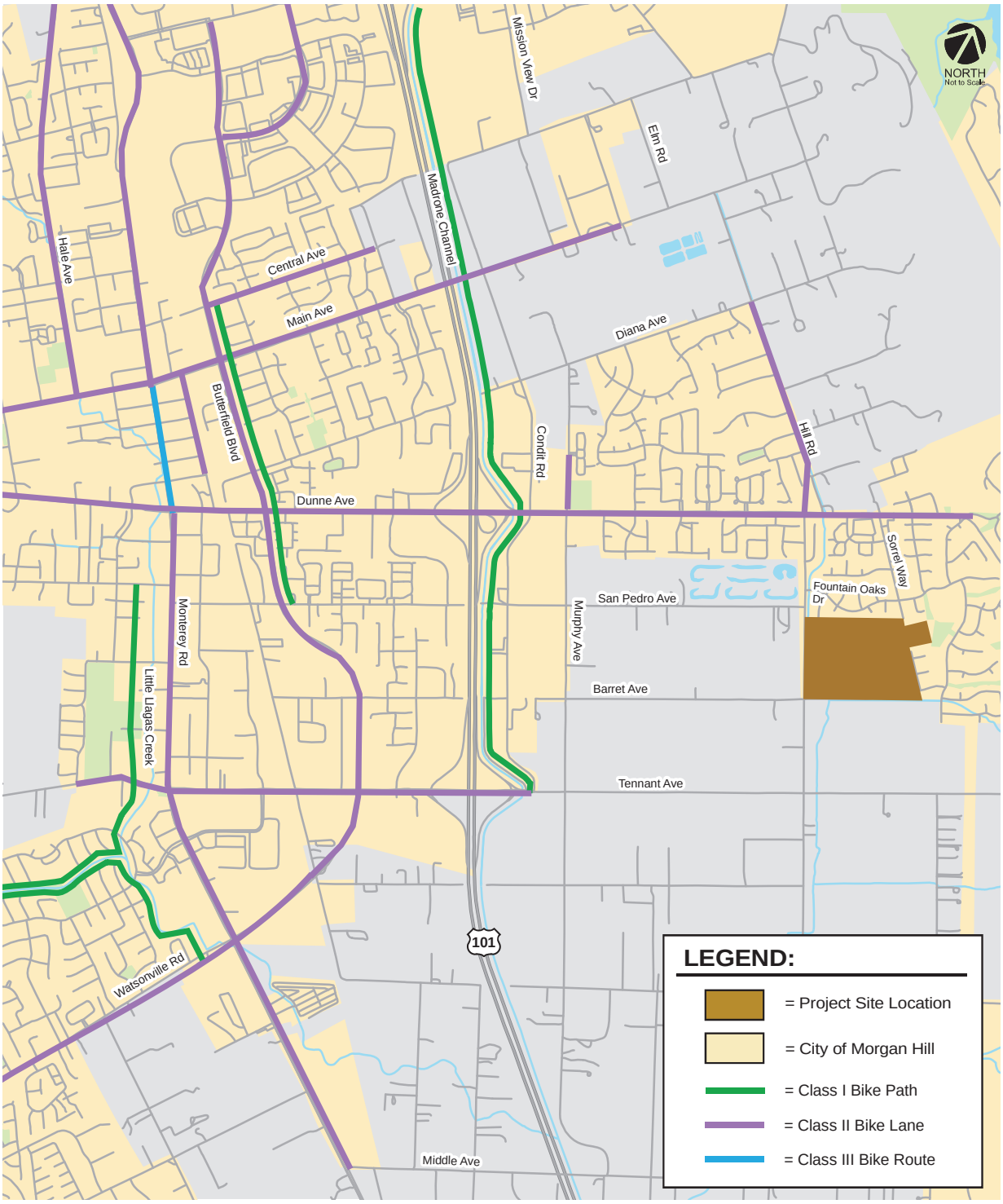
Pedestrian Facilities

Pedestrian facilities in the vicinity consist primarily of sidewalks, pedestrian push buttons, marked crosswalks, and signal heads at the Hill Road/Dunne Avenue signalized intersection. However, the project site is located within a primarily undeveloped area, where continuous sidewalks along the surrounding streets are not available. Sidewalks are provided along both sides of the streets in the residential neighborhoods north and east of the project site, as noted below.

Dunne Avenue – sidewalks are provided on both sides of the street between Magnolia Way and Dewitt Avenue, except for an approximately 500-foot segment on the north side of the street, just east of Hill Road.

Hill Road – sidewalks are provided on at least one side of the street between Fountain Oaks Drive and Diana Avenue.

All other streets (Barrett Avenue, San Pedro Avenue, Hill Road, and Tennant Avenue) in the immediate vicinity of the project site have no sidewalks.



Source: Hexagon Transportation Consultants, Inc., August 13, 2021.

EXISTING BICYCLE FACILITIES | FIGURE 4.17-1

Transit Facilities

Existing transit service to the project site and surrounding area is provided by the VTA and Caltrain.

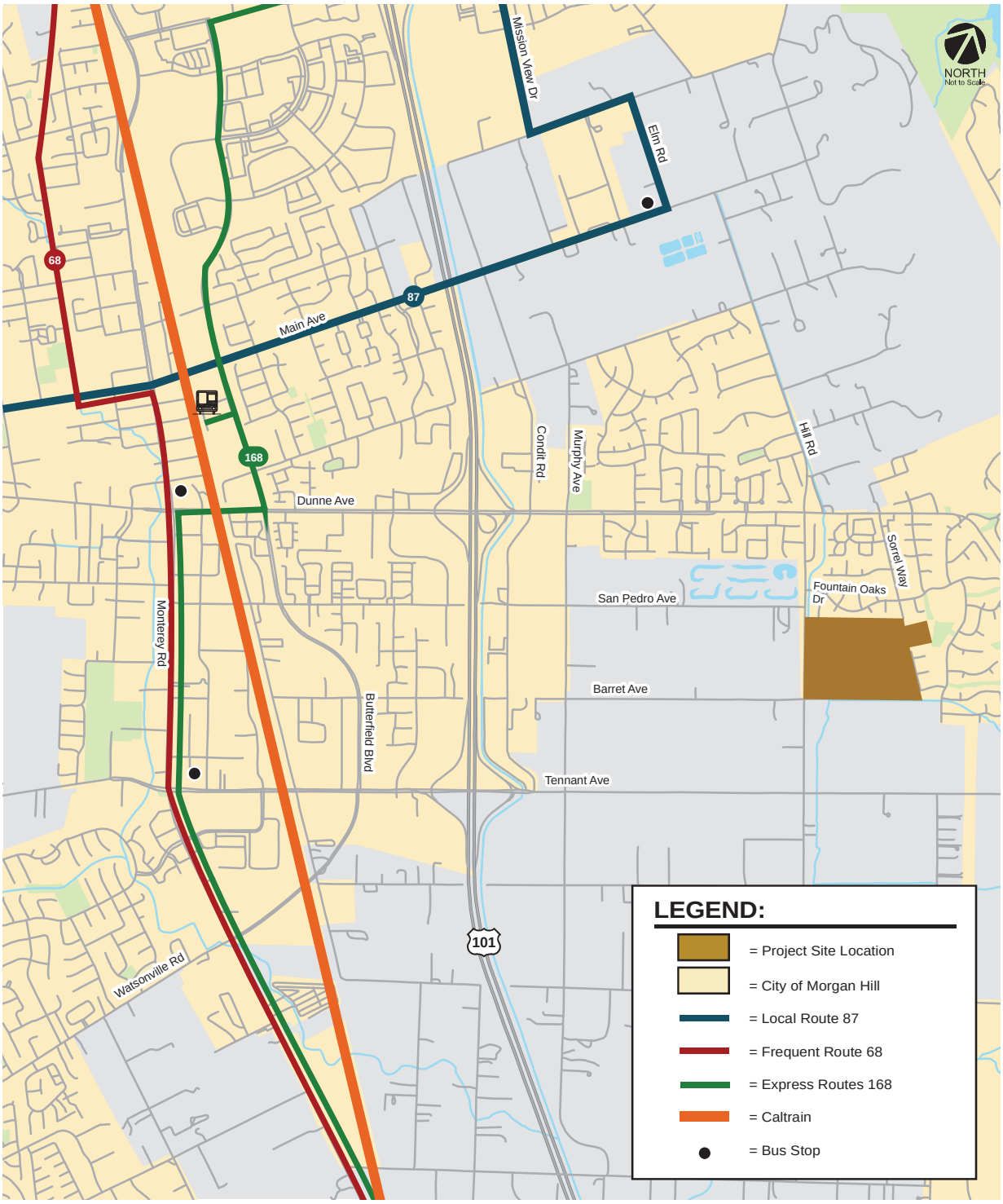
Local Bus Route 87 operates on Cochrane Road, Mission View Drive, and Half Road. It runs from Burnett Avenue to the Civic Center (Main and Dewitt) in Morgan Hill with approximately 60-minute headways in the AM and PM commute periods. Route 87 operates between 6:30 AM and 5:45 PM. The nearest Route 87 bus stops to the project site are located near the Half Road/Elm Road intersection, approximately 1.5 miles north of the project site.

Frequent Bus Route 68 operates on Monterey Road on its route between the Gilroy Transit Center and the San José Diridon Transit Center with 15-minute headways on weekdays in the AM and PM commute periods. Route 68 operates between 5:00 AM and 12:30 AM. The nearest Route 68 stop to the project site is located at the Monterey Road/Dunne Avenue and Monterey Road/Tennant Avenue intersections, approximately 2.25 miles west of the project site.

Express Route 168 operates on Butterfield Boulevard and Cochrane Road on its route between the Gilroy Transit Center and the San José Diridon Transit Center. It operates four northbound trips with 45-minute headways during the AM commute period only and four southbound trips with 45-minute headways during the PM commute period only. The nearest Route 168 bus stops to the project site are located near Morgan Hill Caltrain Station, approximately 2.25 miles west of the project site.

Commuter rail service between San Francisco and Gilroy is provided by Caltrain. The Morgan Hill Caltrain Station is located along Depot Street, with main access and parking off of Butterfield Boulevard, approximately 2.25 miles west of the project site. At the Morgan Hill Station, Caltrain provides service in only the northbound direction during the AM commute period with 30-minute headways and only in the southbound direction during the PM commute period with 90-minute headways.

The existing transit facilities are shown on Figure 4.17-2.



Source: Hexagon Transportation Consultants, Inc., August 13, 2021.

EXISTING TRANSIT FACILITIES | FIGURE 4.17-2

4.17.2 Impact Discussion

For the purpose of determining the significance of the project's impact on transportation, would the project:

1) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?
2) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?
3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
4) Result in inadequate emergency access?

4.17.2.1 *Project Impacts*

a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?

The project is consistent with the policies of the City's General Plan to improve sidewalk connectivity and expand pedestrian opportunities. The City's Bikeways, Trails, Parks and Recreation Master Plan, adopted in July 2017, establishes goals, policies, and actions to facilitate bicycling and designates bicycle lanes along many City streets. The project's consistency with these plans and the is described below.

Pedestrian Facilities

The project site is located within a primarily undeveloped area where continuous sidewalks along the surrounding streets are not available. Sidewalks are provided along at least one of the sides of Dunne Avenue and Hill Road. It can be expected that new pedestrian traffic would be generated by the proposed project. The project site is located within walking distance from various commercial uses near Dunne Avenue and US 101, Jackson Elementary School located along Fountain Oaks Drive, and Nordstrom Elementary School located along Dunne Avenue. Controlled crossings at the intersection of Hill Road and Dunne Avenue along with the sidewalks provided on-site would provide a connection between the project site and the pedestrian generators in the project vicinity. The project would improve pedestrian safety and promote connectivity. For these reasons, project impacts to pedestrian facilities would be considered less than significant. **(Less than Significant Impact)**

Bicycle Facilities

Bike lanes in the project vicinity are currently provided along Dunne Avenue, west of Gallop Drive and Hill Road, between Dunne Avenue and Diana Avenue. These bike lanes provide a connection to other bicycle facilities throughout Morgan Hill. However, no bike lanes currently serve the project site directly.

The proposed project could increase the demand on bicycle facilities in the vicinity of the project site. Assuming bicycle trips would comprise no more than one percent of the total project-generated trips, the project could generate up to three new bicycle trips during each of the peak hours.

Required for New Development within this Planned Development: The Bikeways Master Plan map contained within the City of Morgan Hill General Plan shows proposed bike lanes along both sides of Hill Road, between Dunne Avenue and Maple Avenue, and proposed bike route on Barrett Avenue, west of Hill Road. Improvements along the project frontage including the recommended widening of Hill Road shall be planned to accommodate the implementation of the planned bike lanes along Hill Road.

The project would not exceed the capacity of the existing bicycle facilities or preclude the construction of planned improvements. For these reasons, project impacts to bicycle facilities would be considered less than significant. **(Less than Significant Impact)**

Transit Facilities

Since no bus routes currently exist that provide direct service between the project site and other pedestrian destinations in Morgan Hill, and the nearest bus stop to the project site is located approximately 1.5 miles away, the use of public transportation by residents of the proposed project would be limited. Nevertheless, assuming an estimated three percent transit mode share, which is probably the highest that could be expected for the project, equates to approximately no more than nine new transit riders during each of the peak hours.

The project would not interfere with the construction of planned transit facilities. For these reasons, project impacts to transit facilities would be considered less than significant. **(Less than Significant Impact)**

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b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Based on VTA's VMT Evaluation Tool, the Morgan Hill citywide average daily VMT per capita is currently 24.64. The OPR recommends an impact threshold of 15 percent below the existing VMT levels for residential land uses, which equates to 20.94 VMT per capita. The project, located on the southeastern edge of the city, is estimated to generate 33.25 VMT daily per capita, which would exceed the City's impact threshold. The project would result in a significant VMT impact on the transportation system.

The project applicant would need to implement VMT reduction measures to achieve a 37 percent reduction in its VMT per capita for the proposed project to reduce the project's VMT impact to a less than significant level, i.e., below 20.94 VMT daily per capita. However, the maximum reduction

possible is anticipated to reduce daily per capita VMT to only 29.55. The project's VMT per capita could be reduced to 29.55 with the implementation of the following Travel Demand Management (TDM) strategies, included as mitigation measures below.

Impact TRN-1: The project would generate 33.25 vehicle miles traveled (VMT) daily per capita, exceeding the threshold of 20.94 VMT per capita.

Mitigation Measures: The project shall implement the following measures to reduce its impact to VMT.

MM TRN-1.1: The project applicant shall develop and implement a Transportation Demand Management (TDM) plan which targets a reduction in residential vehicle trips to and from the site. The TDM plan shall be prepared by a qualified traffic consultant and in coordination with the City of Morgan Hill Development Services Director or Designee. The TDM plan shall quantify the reduction in VMT. The TDM plan shall require the following measures:

- Prior to project occupancy, the project applicant shall make a financial contribution to the City's on-site demand rideshare service (MoGo), as a one-time or annual financial contribution based on City's approval
- The project shall improve the surrounding pedestrian network by including sidewalks, which terminate at the common property line, allowing for connections to the adjacent property in the event there is future development.

Implementation of mitigation measure MM TRN-1.1 above would reduce the proposed project's impacts to VMT; however, impacts would not be mitigated to less than significant levels. OPR's recommended 15 percent below existing VMT impact threshold encourages development in transit-rich, mixed-use areas to implement design features and trip reduction measures. The area of Morgan Hill, however, where the project is located has a limited multi-modal transportation infrastructure, lacks a mix of complementary land uses, and lacks employment opportunities, resulting in more and longer commute trips. For these reasons, it is unlikely that developments in that area of Morgan Hill such as the proposed project could achieve OPR's 15 percent reduction recommendation. Therefore, the project's VMT impact would be considered significant and unavoidable. **(Significant and Unavoidable Impact)**

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project would be designed in accordance with the City of Morgan Hill design standards. The project design does not include sharp curves or dangerous intersections that could result in safety hazards, or does the project propose incompatible uses, such as farm equipment.

The proposed roundabout has the potential to reduce the number of collisions and maintain low travel speeds through the intersection. During the architectural and site plan review, the project's design will be reviewed to ensure that all applicable design standards are met. For these reasons, and those discussed above, the project would not substantially increase hazards due to a design feature or incompatible use. **(Less than Significant Impact)**

d) Would the project result in inadequate emergency access?

The proposed project would be designed in accordance with City of Morgan Hill design standards. The proposed 26-foot-wide internal roadways would provide emergency vehicles (i.e., fire trucks) with sufficient space to access each of the residential units proposed on-site. There are several dead-end drive aisles that would not provide sufficient space for emergency vehicles to turn around; however, the emergency vehicles would be able to back out of the roadways.

Required for New Development within this Planned Development: The project shall provide adequate width and turn-radii at and along all drive/parking aisles to allow for two-way circulation and adequate circulation of larger vehicles (such as emergency trucks, garbage trucks, and delivery trucks) throughout the project site.

By adhering to the City's design standards and complying with the above Planned Development Standard, the proposed project would provide adequate emergency access and would result in less than significant impacts. **(Less than Significant Impact)**

4.17.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant transportation impact?

The scale of cumulative analysis for VMT impacts is citywide and is based on the planned growth in the General Plan, which included the proposed residential uses on the project site. The General Plan EIR did not identify the impacts of VMT as it was not considered an impact under CEQA at the time of EIR preparation. The General Plan EIR provided information on existing VMT and the VMT per capita with the General Plan build-out for informational purposes.

With the passage of SB 743, the City is now applying numeric thresholds to evaluate the significance of VMT impacts, which for residential uses is 15 percent below the existing citywide average (which equates to 20.94 VMT per capita). As discussed under checklist question b) above, the project is estimated to generate 33.25 VMT per capita, which would exceed the impact threshold. The project would implement mitigation measures to reduce its impacts on VMT generation; however, the project's VMT per capita cannot be reduced past 29.55 VMT per capita. Since the mitigated project-generated VMT per capita is above the citywide threshold, the project would result in a considerable contribution to a significant cumulative citywide VMT impact. Apart from the specific

issue of VMT, any projects proposed within the City would be designed in accordance with the City's design standards and would not therefore result in dangerous conditions and would not impede emergency access. **(Significant and Unavoidable Cumulative Impact)**

4.17.3 Non-CEQA Effects

While the evaluation of project CEQA impacts on the transportation system is based on VMT, the following discussion is included for informational purposes in accordance with the City's Level of Service General Plan Policy TR-3.4. The physical roadway improvements discussed below are physical changes to the environment related to the project that are also discussed where relevant in this EIR for their potential to result in impacts.

4.17.3.1 *Project Trip Generation*

Trip generation estimates are based on trip generation raters from the Institute of Transportation Engineers' (ITE's) Trip Generation Manual, 10th Edition. Based on the recommended rates and the size of the proposed project, it is estimated that the proposed project would generate 3,170 daily trips, with 248 trips occurring during the AM peak hour and 330 trips occurring during the PM peak hour. The trip generation estimates for the proposed project are shown in Table 4.17-1.

Table 4.17-1: Project Trip Generation Estimates

Land Use	Size	Daily		AM Peak Hour			PM Peak Hour		
		Rate	Trips	In	Out	Total	In	Out	Total
Single-Family Detached Housing (ITE LU #210)	309* Dwelling Units	9.440	2,917	57	172	229	193	113	306
Senior Adult Housing – Detached (ITE LU #251)	21 Dwelling Units	6.785	142	4	8	12	9	5	14
Senior Adult Housing – Attached (ITE LU #252)	34 Dwelling Units	3.274	111	2	5	7	6	4	10
Total Proposed Project Trips/Units	**364 Dwelling Units**	**--**	**3,000**	**60**	**172**	**232**	**193**	**115**	**308**

* The project's 223 single-family houses, 42 court houses, and 44 ADUs are conservatively included as single-family detached housing.

Source: ITE Trip Generation Manual, 10th Edition. 2017.

4.17.3.2 *Morgan Hill LOS Guidelines and Methodology*

Signalized Intersections

The City of Morgan Hill LOS methodology is TRAFFIX, which is based on the 2000 Highway Capacity Manual (HCM) method for signalized intersections. TRAFFIX evaluates signalized intersections operations based on average delay time for all vehicles at the intersection. Since TRAFFIC is also the CMP-designated intersections LOS methodology, the City methodology employs the CMP default

values for the analysis parameters, which include adjusted saturation flow rates to reflect conditions in Santa Clara County. All intersections within the City of Morgan Hill are required to meet the City's LOS standard of LOS D, which is the exception of some downtown intersections and freeway zones, listed in Policy TR-3.4 above in Regulatory Setting and Appendix I.

Unsignalized Intersections

The methodology used to determine the level of service for unsignalized intersections is also TRAFFIX and the 2000 HCM methodology for unsignalized intersection analysis. This method is applicable for both two-way and all-way stop-controlled intersections. For one- and two-way stop-controlled intersections, the delay and corresponding level of service for the stop-controlled minor street approach with the highest delay is reported. For all-way stop-controlled intersections, the reported average delay and the corresponding level of service is the average for all approaches at the intersection. The City uses a minimum acceptable level of service standard of LOS D for unsignalized intersections, in accordance with the Guidelines for Preparation of Transportation Impact Reports.

4.17.3.3 *Intersection Level of Service Analysis*

Level of Service Study Intersections

The traffic operations analysis includes an analysis of AM and PM peak-hour traffic conditions for 12 signalized intersections, 12 unsignalized intersections, and one future intersection. The study intersections are identified in Table 4.17-2.

Traffic conditions at all of the study intersections were analyzed for the weekday AM and PM peak hours. The weekday AM peak hour of traffic is generally between 7:00 AM and 9:00 AM and the weekday PM peak hour is typically between 4:00 PM and 6:00 PM. It is during these periods that the most congested traffic conditions occur on a typical weekday. Traffic conditions were evaluated for the conditions described below:

- **Scenario 1:** *Existing Conditions.* Existing conditions represent the existing peak-hour traffic volumes on the existing roadway network. New traffic counts are not currently being collected due to the current COVID-19 pandemic and its effects on normal traffic conditions. Therefore, existing traffic volumes were represented by pre-pandemic traffic counts with a 1.5 percent compound annual growth factor applied to counts more than two years old. This growth rate is the net percentage increase in Morgan Hill's population between 2019 and 2020, per the California Department of Finance.
- **Scenario 2:** *Existing Plus Project Conditions.* Project-generated traffic volumes were added to existing traffic volumes to estimate existing plus project conditions. Existing plus project conditions were evaluated relative to existing conditions in order to determine potential project impacts.
- **Scenario 3:** *Year 2030 Cumulative without Project Conditions.* Year 2030 cumulative without project conditions represent traffic growth projected to occur in the year 2030 without the

proposed project on the existing transportation network. Projected 2030 traffic growth was developed by interpolating the projected year 2035 traffic growth.

- **Scenario 4:** *Year 2030 Cumulative with Project Conditions.* Project-generated traffic volumes were added to Year 2030 Cumulative without project to estimate Year 2030 Cumulative with project conditions. Year 2030 Cumulative with project conditions were evaluated relative to Year 2030 Cumulative without project conditions in order to determine potential project impacts.
- **Scenario 5:** *Year 2035 General Plan No Project Conditions.* Year 2035 General Plan No Project conditions represent future traffic volumes on the future transportation network. Year 2035 General Plan No Project conditions includes land use growth and transportation improvements associated with buildout of the City's General Plan.
- **Scenario 6:** *Year 2035 General Plan with Project Conditions.* Year 2035 General Plan with Project conditions consist of Year 2035 General Plan No Project traffic conditions with the addition of traffic due to the proposed project and its associated land use amendment for the project site.

The traffic operations analysis used a growth projections approach rather than a project-list approach to analyze cumulative conditions. The growth projections approach is more conservative in that it provides a comprehensive and consistent assignment of traffic growth within the city throughout the year 2035. The project-list approach would analyze near-term approved and pending projects through the year 2030 and would only account for projects within proximity to the proposed project, which would limit the number of trips analyzed compared to analyzing the citywide forecasted growth, therefore the growth projections result accounts for a greater amount of growth than relying on a list of pending or approved projects.

Existing Plus Project Conditions

The results of the intersection level of service analysis under existing and existing plus project conditions are summarized in Table 4.17-2.

The results of the level of service analysis indicate that, when measured against the City of Morgan Hill level of service standards, all of the study intersections currently operate and will continue to operate at acceptable levels of service, LOS D or better, during each of the peak hours analyzed under existing and existing plus project conditions up to the year 2030.

The results of the signal warrant analysis indicate that the following three unsignalized intersections currently have and will continue to have volumes under existing and existing plus project conditions that would warrant signalization and. will continue to operate within the applicable level of service standards until 2030. Therefore, the project would not have an adverse effect on operations at any of these three intersections and signalization of the intersections is not required based on the City of Morgan Hill's standards.

10. Condit Road and Tennant Avenue (without and with project – AM and PM peak hours)

13. Murphy Avenue and Tennant Avenue (without and with project – AM and PM peak hours)
24. Condit Road and Diana Avenue (without and with project – AM peak hour)

Year 2030 Cumulative Plus Project Conditions

Year 2030 Cumulative traffic volumes were developed based on traffic forecasts produced for the City of Morgan Hill 2035 General Plan using the City's TDF model. The Year 2030 cumulative without project traffic volumes were estimated using a growth method that involved adding a proportion (15 years or 75 percent) of the 2035 projected growth, with the removal of the trips associated with the adopted General Plan land uses for the project, to existing traffic counts at each of the study intersections. The results of the intersection level of service and signal warrant analyses under Year 2030 Cumulative with and without project are shown in Table 4.17-3.

Table 4.17-2: Existing Plus Project Intersection Levels of Service

Intersection	Peak Hour	Existing		Existing Plus Project			
		Delay[1]	LOS	Delay[1]	LOS	Increase in Critical Delay	Increase in Critical V/C
Butterfield Boulevard and Dunne Avenue	AM	36.3	D	36.5	D	0.4	0.005
	PM	32.1	C	32.2	C	0.1	0.003
Butterfield Boulevard and Tennant Avenue	AM	28.7	C	28.7	C	0.1	0.005
	PM	32.7	C	32.8	C	0.3	0.013
Walnut Grove Drive and Dunne Avenue	AM	18.5	B	18.5	B	0.0	0.002
	PM	28.2	C	28.1	C	-0.1	0.007
US 101 SB Ramps and Dunne Avenue	AM	21.1	C	21.1	C	0.0	0.000
	PM	19.0	B	19.3	B	0.0	0.000
US 101 NB Ramps and Dunne Avenue	AM	5.4	A	5.2	A	-0.1	0.006
	PM	11.9	B	11.5	B	0.1	0.021
US 101 SB Ramps and Tennant Avenue	AM	21.8	C	22.3	C	0.9	0.015
	PM	19.9	B	20.0	B	0.4	0.017
US 101 NB Ramps and Tennant Avenue	AM	11.6	B	11.7	B	0.8	0.000
	PM	11.1	B	10.9	B	-0.1	0.010
Condit Road and Main Avenue	AM	28.4	C	28.8	C	0.7	0.016
	PM	27.0	C	28.1	C	1.4	0.031
Condit Road and Dunne Avenue	AM	31.1	C	31.2	C	0.2	0.028
	PM	23.2	C	23.5	C	0.0	0.020
Condit Road and Tennant Avenue	AM	15.6	C	16.6	C	N/A	N/A
	PM	15.3	C	16.7	C	N/A	N/A
Murphy Avenue and Main Avenue (future intersection)	AM	--	--	--	--	--	--
	PM	--	--	--	--	--	--

Table 4.17-2: Existing Plus Project Intersection Levels of Service

Intersection	Peak Hour	Existing		Existing Plus Project			
		Delay[1]	LOS	Delay[1]	LOS	Increase in Critical Delay	Increase in Critical V/C
Murphy Avenue and Dunne Avenue	AM	19.3	B	20.0	B	0.9	0.038
	PM	11.9	B	11.8	B	-0.1	0.045
Murphy Avenue and Tennant Avenue	AM	24.1	C	27.5	D	N/A	N/A
	PM	12.4	B	14.2	B	N/A	N/A
Peppertree Avenue and Dunne Avenue	AM	12.4	B	12.1	B	-0.3	0.026
	PM	13.9	B	10.5	B	-5.8	0.026
Pine Way and Dunne Avenue	AM	14.4	B	15.5	C	N/A	N/A
	PM	14.4	B	16.3	C	N/A	N/A
Claret Drive/Tassajara Circle and Dunne Avenue	AM	17.1	C	18.8	C	N/A	N/A
	PM	15.2	C	17.7	C	N/A	N/A
Hill Road and Main Avenue	AM	13.1	B	13.9	B	N/A	N/A
	PM	8.5	A	8.8	A	N/A	N/A
Hill Road and Dunne Avenue	AM	19.3	B	19.9	B	1.2	0.056
	PM	18.2	B	18.4	B	0.7	0.050
Hill Road and Fountain Oaks Drive	AM	18.2	C	25.4	D	N/A	N/A
	PM	12.0	B	13.9	B	N/A	N/A
Hill Road and San Pedro Avenue	AM	13.4	B	14.6	B	N/A	N/A
	PM	10.6	B	12.1	B	N/A	N/A
Hill Road and Barrett Avenue	AM	19.5	C	29.4	D	N/A	N/A
	PM	13.4	B	17.2	C	N/A	N/A
Hill Road and Tennant Avenue	AM	13.1	B	13.7	B	N/A	N/A
	PM	10.3	B	11.1	B	N/A	N/A

Table 4.17-2: Existing Plus Project Intersection Levels of Service

Intersection	Peak Hour	Existing		Existing Plus Project			
		Delay[1]	LOS	Delay[1]	LOS	Increase in Critical Delay	Increase in Critical V/C
Sorrel Way and Dunne Avenue	AM	20.3	C	22.6	C	N/A	N/A
	PM	15.6	C	16.3	C	N/A	N/A
Condit Road and Diana Avenue	AM	15.4	C	15.8	C	N/A	N/A
	PM	14.1	B	14.4	B	N/A	N/A
Murphy Avenue and Diana Avenue	AM	11.7	B	11.7	B	N/A	N/A
	PM	10.0	A	10.0	A	N/A	N/A

Notes:

[1] The reported delay and corresponding level of service for signalized and all-way stop-controlled intersections represent the average delay for all approaches at the intersection.

The reported delay and corresponding level of service for one- and two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay.

Table 4.17-3: Cumulative Intersection Levels of Service

Intersection	Peak Hour	2030 Cumulative without Project		2030 Cumulative with Project			
		Delay[1]	LOS	Delay[1]	LOS	Increase in Critical Delay	Increase in Critical V/C
Butterfield Boulevard and Dunne Avenue	AM	42.4	D	42.8	D	0.6	0.004
	PM	35.8	D	36.0	D	1.4	0.010
Butterfield Boulevard and Tennant Avenue	AM	33.6	C	33.7	C	0.3	0.005
	PM	40.2	D	41.0	D	1.7	0.013
Walnut Grove Drive and Dunne Avenue	AM	19.1	B	19.2	B	0.0	0.002
	PM	28.6	C	28.6	C	-0.1	0.007
US 101 SB Ramps and Dunne Avenue	AM	22.2	C	22.2	C	0.0	0.000
	PM	21.5	C	21.8	C	0.0	0.000
US 101 NB Ramps and Dunne Avenue	AM	6.2	A	6.1	A	-0.1	0.006
	PM	11.5	B	11.2	B	-0.2	0.020
US 101 SB Ramps and Tennant Avenue	AM	28.4	C	29.3	C	1.5	0.015
	PM	23.2	C	23.7	C	0.8	0.017
US 101 NB Ramps and Tennant Avenue	AM	12.2	B	12.0	B	0.0	0.014
	PM	10.5	B	10.3	B	-0.1	0.009
Condit Road and Main Avenue	AM	58.2	E	**61.6**	**E**	**4.4**	**0.016**
	PM	95.0	F	**105.3**	**F**	**12.9**	**0.031**
Condit Road and Dunne Avenue	AM	35.3	D	35.7	D	0.4	0.029
	PM	24.7	C	24.4	C	-0.4	-0.003
Condit Road and Tennant Avenue	AM	34.2	D	39.6	E	N/A	N/A
	PM	99.9	F	**138.1**	**F**	**N/A**	**N/A**

Table 4.17-3: Cumulative Intersection Levels of Service

Intersection	Peak Hour	2030 Cumulative without Project		2030 Cumulative with Project			
		Delay[1]	LOS	Delay[1]	LOS	Increase in Critical Delay	Increase in Critical V/C
Murphy Avenue and Main Avenue (future intersection)	AM	--	--	--	--	--	--
	PM	--	--	--	--	--	--
Murphy Avenue and Dunne Avenue	AM	20.8	C	21.6	C	1.2	0.038
	PM	14.4	B	14.5	B	0.2	0.045
Murphy Avenue and Tennant Avenue	AM	135.7	F	**147.8**	**F**	**N/A**	**N/A**
	PM	120.5	F	**150.9**	**F**	**N/A**	**N/A**
Peppertree Avenue and Dunne Avenue	AM	12.4	B	12.1	B	-0.3	0.026
	PM	13.9	B	10.5	B	-5.8	0.026
Pine Way and Dunne Avenue	AM	14.8	B	15.9	C	N/A	N/A
	PM	14.4	B	16.3	C	N/A	N/A
Claret Drive/Tassajara Circle and Dunne Avenue	AM	17.7	C	19.5	C	N/A	N/A
	PM	15.3	C	17.7	C	N/A	N/A
Hill Road and Main Avenue	AM	16.4	C	17.8	C	N/A	N/A
	PM	9.7	A	10.1	B	N/A	N/A
Hill Road and Dunne Avenue	AM	19.6	B	20.2	C	1.4	0.056
	PM	19.2	B	19.4	B	0.4	0.050
Hill Road and Fountain Oaks Drive	AM	24.1	C	**40.2**	**E**	**N/A**	**N/A**
	PM	15.5	C	19.3	C	N/A	N/A
Hill Road and San Pedro Avenue	AM	15.2	C	16.6	C	N/A	N/A
	PM	12.8	B	14.8	B	N/A	N/A

Table 4.17-3: Cumulative Intersection Levels of Service

Intersection	Peak Hour	2030 Cumulative without Project		2030 Cumulative with Project			
		Delay[1]	LOS	Delay[1]	LOS	Increase in Critical Delay	Increase in Critical V/C
Hill Road and Barrett Avenue	AM	29.4	D	**67.8**	**F**	**N/A**	**N/A**
	PM	18.3	C	30.9	D	N/A	N/A
Hill Road and Tennant Avenue	AM	17.5	C	18.9	C	N/A	N/A
	PM	20.2	C	24.7	C	N/A	N/A
Sorrel Way and Dunne Avenue	AM	21.3	C	24.0	C	N/A	N/A
	PM	15.9	C	16.6	C	N/A	N/A
Condit Road and Diana Avenue	AM	44.3	E	**47.6**	**E**	**N/A**	**N/A**
	PM	29.9	D	31.2	D	N/A	N/A
Murphy Avenue and Diana Avenue	AM	13.8	B	13.8	B	N/A	N/A
	PM	11.1	B	11.1	B	N/A	N/A

Notes:

[1] The reported delay and corresponding level of service for signalized and all-way stop-controlled intersections represent the average delay for all approaches at the intersection.

The reported delay and corresponding level of service for one- and two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay.

Bold indicates unacceptable level of service or signal warrant met.

Bold and boxed indicate an adverse effect on intersection operations.

The results of the LOS analysis indicate that the following six intersections would operate at unacceptable levels of service (LOS E and/or F) during at least one peak hour under Year 2030 Cumulative without and with project conditions:

8. Condit Road and Main Avenue (Without and With Project – AM and PM peak hours)
10. Condit Road and Tennant Avenue (Without and With Project – PM peak hour)
13. Murphy Avenue and Tennant Avenue (Without and With Project - AM and PM peak hours)
19. Hill Road and Fountain Oaks Drive (With Project Only – AM peak hour)
21. Hill Road and Barrett Avenue (With Project Only – AM peak hour)
24. Condit Road and Diana Avenue (Without and With Project – AM Peak Hour)

The following two intersections would operate at unacceptable levels of service (LOS or E) during both peak hours under Year 3030 cumulative without and with project conditions:

13. Murphy Avenue and Tennant Avenue (Without and With Project – AM and PM peak hours)
24. Condit Road and Diana Avenue (Without and With Project – AM peak hour)

All of the remaining study intersections are projected to operate at acceptable levels of service under Year 2030 Cumulative without and with project conditions.

The signal warrant analysis indicates that the following four unsignalized intersections are projected to have traffic volumes that warrant signalization during at least one peak hour under Year 2030 Cumulative without and with project conditions:

10. Condit Road and Tennant Avenue (Without and With Project – AM and PM peak hours)
13. Murphy Avenue and Tennant Avenue (Without and With Project – AM and PM peak hours)
22. Hill Road and Tennant Avenue (Without and With Project – AM and PM peak hours)
24. Condit Road and Diana Avenue (Without and With Project – AM and PM peak hours)

The signal warrant analysis further indicates that the following two unsignalized intersections are projected to have traffic volumes that are in excess of intersection capacity during at least one peak hour under Year 2030 Cumulative with project conditions:

19. Hill Road and Fountain Oaks Drive (With Project Only – AM peak hour)
21. Hill Road and Barrett Avenue (With Project Only – AM peak hour)

All other unsignalized study intersections are projected to have traffic volumes under Year 2030 Cumulative without and with project conditions that fall below the thresholds that warrant signalization.

Based on the City's operating standards, the proposed project would have an adverse effect on intersection operations at the following six intersections.

8. Condit Road and Main Avenue (PM peak hour)
10. Condit Road and Tennant Avenue (PM peak hour)
13. Murphy Avenue and Tennant Avenue (AM and PM peak hours)
19. Hill Road and Fountain Oaks Drive (AM peak hour)
21. Hill Road and Barrett Avenue (AM peak hour)
24. Condit Road and Diana Avenue (AM peak hour)

Adverse Intersection Operations Effects and Potential Improvements

The following improvements to the above intersections would be implemented.

8. Condit Road and Main Avenue

The Condit Road and Main Avenue intersection is projected to operate at an unacceptable LOS E and F during the AM and PM peak hour, respectively, under Year 2030 Cumulative without project conditions. Traffic associated with the proposed project would cause the critical delay to increase by more than four seconds and the volume-to-capacity ratio (V/C) to increase by more than 0.01 during the PM peak hour. This constitutes an adverse effect on intersection operations based on the City of Morgan Hill's LOS standards.

- **Required for New Development within this Planned Development:** The project shall contribute a proportional fair share of the in-lieu cost for future implementation of an exclusive southbound right-turn lane on Condit Road, required signal modifications, and lane striping on the southbound approach.

The addition of the southbound right-turn lane would require signal modification with pavement widening, signal pole relocation, and improvement of the northwest corner of the intersection to accommodate relocated trail access, sidewalks, and new ADA curb ramps. These improvements would occur within the existing right of way and would not result in significant environmental impacts. Implementation of the improvement identified above would improve the intersection's level of service to an acceptable LOS D during the PM peak hour under Year 2030 Cumulative with project conditions.

10. Condit Road and Tennant Avenue

The Condit Road and Tennant Avenue intersection is projected to operate at an unacceptable LOS F during both the AM and PM peak hours under Year 2030 Cumulative without and with project conditions. The peak-hour traffic signal warrant checks indicate that the intersection would have traffic volumes during both the AM and PM peak hours under Year 2030 Cumulative without and with project conditions that meet thresholds that warrant signalization. This would constitute an adverse effect on intersection operations based on the City of Morgan Hill's LOS standards.

- **<u>Required for New Development within this Planned Development</u>:** The project shall contribute a proportional fair share of the in-lieu cost for future implementation of a traffic signal at the Condit Road and Tennant Avenue intersection. The in-lieu cost shall be determined by the City prior to the approval of a tentative map and/or design review.

Implementation of the improvement identified above could be implemented within the existing right-of-way and would improve the intersection's LOS to an acceptable LOS B during the PM peak hour under Year 2030 Cumulative with project conditions.

13. Murphy Avenue and Tennant Avenue

The Murphy Avenue and Tennant Avenue intersection is projected to operate at an unacceptable LOS F during both the AM and PM peak hours under Year 2030 Cumulative without and with project conditions. Additionally, the peak-hour traffic signal warrant checks indicate that the intersection would have traffic volumes during both the AM and PM peak hours under Year 2030 Cumulative without and with project conditions that meet thresholds that warrant signalization. This would constitute an adverse effect on intersections operations based on the City of Morgan Hill's LOS standards.

- **<u>Required for New Development within this Planned Development</u>:** The project shall contribute a proportional fair share of the in-lieu cost for future implementation of a traffic signal with protected phasing on all four approaches at the Murphy Avenue and Tennant Avenue intersection. The in-lieu cost shall be determined by the City prior to approval of tentative map and/or design review.

Implementation of the improvement identified above would require acquisition of right-of-way and removal of trees at each intersection corner in order to accommodate signal poles and curb ramps, in addition to removal and relocation of utility poles. Implementation of the improvement identified above would improve the intersection's LOS to acceptable LOS D during both AM and PM peak hours under Year 2030 Cumulative with project conditions.

19. Hill Road and Fountain Oaks Drive

The Hill Road and Fountain Oaks Drive intersection is projected to operate at an acceptable LOS C during the AM peak hour under Year 2030 Cumulative no project conditions. Traffic associated with the proposed project would degrade the LOS to an unacceptable LOS E during the AM peak hour. Additionally, the peak-hour traffic signal warrant checks indicate that the intersection would have traffic volumes during AM peak hour under Year 2030 Cumulative with project conditions that meet thresholds that warrant signalization. This would constitute an adverse effect on intersection operations based on the City of Morgan Hill's LOS standards.

- **<u>Required for New Development within this Planned Development</u>:** The project shall implement a separate westbound left-turn lane on Fountain Oaks Drive. The project shall be required to cover the full cost of this improvement.

Implementation of the improvement identified above would require approximately five feet of right-of-way along the northside of Fountain Oaks to accommodate pavement widening and relocation of curb, gutter, trees, and sidewalks. Given this improvement would not require removal of the trees or sidewalks, the improvement would not result in a significant impact to pedestrian facilities or trees. Implementation of the improvement identified above would improve the intersection's LOS to an acceptable LOS C during the AM peak hour under Year 2030 Cumulative with project conditions.

21. Hill Road and Barrett Avenue

The Hill Road and Barrett Avenue intersection is projected to operate at an acceptable LOS D during the AM peak hour under Year 2030 Cumulative no project conditions. Traffic associated with the proposed project would degrade the LOS to an unacceptable LOS F during the AM peak hour. Additionally, the peak-hour traffic signal warrant checks indicate that the intersection would have traffic volumes during AM peak hour under Year 2030 Cumulative with project conditions that meet thresholds that warrant signalization. This would constitute an adverse effect on intersection operations based on the City of Morgan Hill's LOS standards.

- **<u>Minimum Requirement for New Development within this Planned Development</u>:** The project shall implement a traffic signal with protected phasing on Hill Road.

Implementation of the improvement identified above would require acquisition of right-of-way and removal of one tree at the intersection corner in order to accommodate signal poles and curb ramps, in addition to removal and relocation of utility poles. Implementation of the improvement identified above would improve the intersection's LOS to acceptable LOS B during the AM peak hour under Year 2030 Cumulative with project conditions.

Alternatively, the project could implement the following improvement in lieu of a traffic signal.

- **<u>Alternative Requirement for New Development within this Planned Development</u>:** The project shall implement a roundabout at the Hill Road and Barrett Avenue intersection.

Implementation of the improvement identified above would require the widening of Hill Road. This would require the removal and relocation of utility poles and the acquisition of right-of-way and removal of trees at each of the intersection corners to accommodate signal poles and new curb ramps. Implementation of the improvement identified above would improve the intersection's LOS to acceptable LOS A during the AM peak hour under Year 2030 Cumulative with project conditions.

The project shall be required to cover the full cost for either case. Implementation of one of the improvements identified above would improve the intersection's LOS to acceptable LOS B or A during the AM peak hour under Year 2030 Cumulative with project conditions.

24. Condit Road and Diana Avenue

The Condit Road and Diana Avenue intersection is projected to operate at an unacceptable LOS E during the AM peak hour under Year 2030 Cumulative no project conditions. Additionally, the peak-hour traffic signal warrant checks indicate that the intersection would have traffic volumes during AM peak hour under Year 2030 Cumulative without and with project conditions that meet thresholds that warrant signalization. This would constitute an adverse effect on intersection operations based on the City of Morgan Hill's LOS standards.

- **Required for New Development within this Planned Development:** The project shall contribute the proportional share of in-lieu cost for future implementation of a traffic signal with protected phasing on Condit Road. In-lieu cost shall be determined by the City prior to the approval of tentative map and/or design review.

Implementation of the improvement identified above would require acquisition of right-of-way and removal of trees at each intersection corner in order to accommodate signal poles and curb ramps, in addition to removal and relocation of utility poles. Implementation of the improvement identified above would improve the intersection's LOS to an acceptable LOS B during the AM peak hour under Year 2030 Cumulative with project conditions.

4.18 Tribal Cultural Resources

4.18.1 Environmental Setting

4.18.1.1 *Regulatory Framework*

State

Assembly Bill 52

AB 52, effective July 2015, established a new category of resources for consideration by public agencies called Tribal Cultural Resources (TCRs). AB 52 requires lead agencies to provide notice of projects to tribes that are traditionally and culturally affiliated with the geographic area if they have requested to be notified. Where a project may have a significant impact on a tribal cultural resource, consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource or until it is concluded that mutual agreement cannot be reached.

Under AB 52, TCRs are defined as follows:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either:
    - Included or determined to be eligible for inclusion in the California Register of Historic Resources, or
    - Included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).
- A resource determined by the lead agency to be a TCR.

4.18.1.2 *Existing Conditions*

The first inhabitants to the Morgan Hill area arrived approximately 10,000 years ago, shortly after the Ice Age.[89] Human settlements were typically selected for accessibility, protection from seasonal flooding, and the availability of resources and fresh water. Archaeological sites in the southern Santa Clara Valley include habitation sites ranging from villages to temporary campsites, stone tool and other manufacturing areas, quarries for tool stone procurement, cemeteries usually associated with large villages, isolated burial sites, rock art locations, bedrock mortars or other milling feature sites and trails.

The aboriginal inhabitants of the Santa Clara Valley region, the Costanoan (Ohlone), occupied the central California coast as far east as the Diablo Range. The project site appears to have been within either the Mutsun or Matalan territory of the Ohlone; however, no known villages were located in or within the vicinity of the project site. A major prehistoric trail is mapped as having passed through the general study area.

[89] City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report*. May 2016.

As discussed in Section 4.5 Cultural Resources, the project site has a low to moderate sensitivity for archaeological resources, including tribal cultural resources. In May 2019, the Native American Heritage Commission (NAHC) was contacted by the City and Basin Resource Associates regarding the proposed development at the project site. A Sacred Lands File search did not indicate there were Native American resources within or adjacent to the site. Letters/emails soliciting additional information were sent to six Native American individuals/grounds recommended by NAHC. The City received a request for consultation from the Tamien Nation tribe on September 16, 2021, and met with the tribal representative on October 11, 2021. No known archaeological or tribal cultural resources were identified at the site by Tamien Nation. As a result of the October 2021 consultation, the tribe provided mitigation measures to be implemented by development projects in the City to reduce impacts to undiscovered archaeological and tribal cultural resources as a result of this consultation (refer to Cultural Resources Section 4.5.2, Impact Discussion, checklist question b).

4.18.2 Impact Discussion

For the purpose of determining the significance of the project's impact on tribal cultural resources, would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.18.2.1 *Project Impacts*

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

Based on consultation with Native American individuals/groups regarding development at the site, no known tribal cultural resources are present on-site or adjacent to the site. For this reason, the project would not cause an adverse change in the significance of tribal cultural resources. In the event that any tribal cultural resources are unexpectedly unearthed during construction, mitigation measures MM CUL-1.2 would be implemented. Should any Native American human remains be

discovered, MM CUL-1.2 would be implemented. Implementation of these mitigation measures would ensure that the project does not cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k). **(Less than Significant Impact with Mitigation Incorporated)**

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

As discussed under Impact TCR-1, there are no known tribal cultural resources on-site; however, if any subsurface tribal cultural resources are encountered, the project would implement MM CUL-1.2, as described in Section 4.5 Cultural Resources. Therefore, the project would not cause a substantial adverse change in the significance of a tribal cultural resource. **(Less than Significant Impact with Mitigation Incorporated)**

4.18.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant tribal cultural resources impact?

The geographic area for cumulative tribal cultural resources impacts is the project site and adjacent parcels. There are no known tribal cultural resources on-site or adjacent to the site. There are no other development projects planned within the vicinity of the project site, therefore no potential exists for cumulative impacts to tribal cultural resources within the vicinity of the site. With the proposed project's implementation of the mitigation measures listed in Section 4.5 Cultural Resources, the project would result in a less than significant impact to tribal cultural resources, and there would be no cumulative impact. **(No Cumulative Impact)**

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

4.19.1.1 *Regulatory Framework*

State

State Water Code

Pursuant to the State Water Code, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an urban water management plan (UWMP) and update it every five years. As part of a UWMP, water agencies are required to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. The City of Morgan Hill adopted its most recent UWMP in October 2021.

Assembly Bill 939

The California Integrated Waste Management Act of 1989, or AB 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures.

Assembly Bill 341

AB 341 sets forth the requirements of the statewide mandatory commercial recycling program. Businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in California are required to recycle. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Senate Bill 1383

SB 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The bill grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that at least 20 percent of currently disposed edible food is recovered for human consumption by 2025.

California Green Building Standards Code

In January 2010, the State of California adopted the California Green Building Standards Code, establishing mandatory green building standards for all buildings in California. The code covers five

categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and indoor environmental quality. These standards include the following mandatory set of measures, as well as more rigorous voluntary guidelines, for new construction projects to achieve specific green building performance levels:

Reducing indoor water use by 20 percent;

Reducing wastewater by 20 percent;

Recycling and/or salvaging 50 percent of nonhazardous construction and demolition debris; and

Providing readily accessible areas for recycling by occupants.

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts related to transportation. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Utilities and Service Systems

Policy	Description
SSI-14.5	**Water Supply.** Routinely evaluate the impact of new development proposals in Morgan Hill and require appropriate measures (fees, water supply assessments, etc) to ensure long-term water supplies are available.
SSI-14.8	**Sufficient Supply.** Ensure that new development does not exceed the water supply.
SSI-16.2	**Drainage System Capacity.** Ensure that the level of detention or retention provided on the site of any new development is compatible with the capacity of the regional storm drainage system.

4.19.1.2 *Existing Conditions*

Water Service

The City of Morgan Hill provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's water system facilities include 16 groundwater wells, 12 potable water storage tanks equivalent to 10.5 million gallons of storage, 13 booster pump stations (which conveys water from lower supply pressure zones to higher pressure zones), 15 pressure reducing valves (which allows the conveyance of water from higher pressure zones to the lower pressure zones), and over 188 miles of distribution pipelines which are generally 24-inches in diameter and smaller. The City's water distribution system meets the needs of existing customers. In anticipation of future growth, the City has planned and constructed water projects in conjunction with new street construction.

The City relies on groundwater as its sole source of supply. The City relies on water imports from the State Water Project and the federal Central Valley Project for the purpose of groundwater recharge of the sub-basins that supply water to the City (Coyote Valley sub-area of the Santa Clara sub-basin and the Llagas sub-basin). The City's 2020 UWMP (adopted in 2021) determined that

there is sufficient supply to meet water demands within the service area through 2045.[90] The UWMP identified potential shortages which may occur during prolonged years of drought; however, upon implementation of water shortage contingency actions, these shortages can be mitigated in dry-year and multiple dry-year scenarios.

The City's Water System Master Plan (WSMP) was prepared in 2021 and identifies the capacity adequacy of the existing water facilities including pipelines, storage reservoirs, booster stations, and supply wells to service existing customers as well as anticipated future developments. The 2021 WSMP includes a schedule of capital improvements and associated costs, which are required to support future developments as they occur. Based on the 2021 WSMP, the City's 16 groundwater supply wells have a total capacity of 16.6 million gallons per day (mgd). In comparison, the City's 2021 maximum water demand is estimated at approximately 14.0 mgd.

Wastewater

The City of Morgan Hill sewer collection system consists of approximately 160 miles of four-inch through 30-inch diameter sewers, three miles of force mains, and 14 sewage lift stations. The "backbone" of the system consists of the trunk sewers, generally 12-inches in diameter and larger, that convey the collected wastewater flows south to the South County Regional Wastewater Authority (SCRWA) Wastewater Treatment Plant.[91,92] The treatment plant provides service to the cities of Morgan Hill and Gilroy. The treatment plant has capacity to treat an average dry weather flow (ADWF) of 8.5 million gallons per day (mgd) and is currently permitted by the Central Coast RWQCB to treat up to 8.5 mgd.[93] Currently, Morgan Hill is allocated 42 percent of the treatment plant's 8.5 mgd capacity, amounting to 3.6 mgd. In 2016, the ADFW in the City was 2.8 mgd, leaving approximately 0.8 mgd of allowable growth within the City's General Plan before capacity at the plant is reached.[94] Existing sewer utilities in the project area consist of 10-foot lines along Barrett Avenue and 10-foot lines along Hill Road. [95] No wastewater is currently generated at the site.

The SCRWA estimated in 2017 that the Wastewater Treatment Plant (WWTP) will reach capacity in 2025. The SCRWA is currently undergoing a WWTP Facility Expansion Project that will expand the existing WWTP capacity from 8.5 mgd to 11 mgd.[96] The project is estimated for completion by 2024. Project-level CEQA review for the project was completed by SCRWA in August 2020.

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[90] City of Morgan Hill. *2020 Urban Water Management Plan.* October 2021. Page 7-4.
[91] City of Morgan Hill. *Sewer System Master Plan.* October 2017.
[92] City of Morgan Hill. *City Council State Report 2163: Accept Report Regarding Wastewater System Needs and Rate Study Schedule*. May 18, 2019.
[93] Santa Clara Valley Water District. *US Bureau of Reclamation WaterSMART Title XVI Water Reclamation and Reuse Program Funding FY 2017, FOA BOR-DO-17-F002. South Santa Clara County Recycled Water Project (Phases 1B and 2A)*. December 15, 2016. Accessed April 19, 2021. https://www.usbr.gov/watersmart/title/docs/applications/authorized/2017/F002-007santaclara.pdf
[94] City of Morgan Hill. *Sewer System Management Plan.* Page 53. February 2018.
[95] City of Morgan Hill. *Sewer System Master Plan.* Figure ES.3. October 2017.
[96] City of Gilroy. South County Regional Wastewater Authority (SCRWA). Accessed June 28, 2023. http://www.ci.gilroy.ca.us/561/South-County-Regional-Wastewater-Authori

The City of Morgan Hill has recently completed significant capital upgrades to increase the capacity of the existing sewer system and reduce overflows. The City completed construction of the Highland Avenue Sewer Upgrade project to provide additional trunk capacity near the intersection of Harding and Highland Avenues in 2018. The City is facilitating infiltration and inflow reduction projects to reduce the amount of rainwater infiltrating the sewer collection system. In addition, a second trunk sewer line is planned to extend from the Highland/Harding intersection in Morgan Hill to Renz Road in Gilroy, which would allow for additional wastewater deliveries to the SCRWA Wastewater Treatment Plant. The trunk sewer line is under design review.[97]

Storm Drainage

The City of Morgan Hill is divided into several hydrologically distinct drainage areas. Each drainage area has a system of curb and gutter facilities, inlets, conveyance facilities, pumps, and detention basins to collect and dispose of runoff. The stormwater runoff from these areas is ultimately discharged into creeks that flow through the City and are tributary to either Monterey Bay or San Francisco Bay. The drainage areas include Coyote Creek, Fisher Creek, Tennant Creek, Madrone Channel, Butterfield Channel, West Little Llagas Creek, and Llagas Creek.

The project site is located in the Tennant Creek drainage basin, which eventually flows to the Pajaro River and discharges to Monterey Bay.

Solid Waste

The City is contracted with Waste Solutions Group of San Benito, LLC. Effective March 2022, the City's waste is hauled to Kirby Canyon landfill in San José or the Monterey Peninsula landfill in Marina. There is a negligible amount of solid waste currently generated at the project site.

Other Utilities

The project site is largely vacant and electricity, natural gas, and/or telecommunication facilities serving the site are limited.

4.19.2 Impact Discussion

For the purpose of determining the significance of the project's impact on utilities and service systems, would the project:

1) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

[97] City of Morgan Hill. City Council Staff Report 2163. February 6, 2019.

2) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
4) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
5) Be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste?

4.19.2.1 *Project Impacts*

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The proposed project would install new on-site water lines, storm drains, and sanitary sewer lines that would connect to existing utility lines in Barrett Avenue and Hill Road. The project would establish new utility connections for electric power, natural gas lines, and telecommunications facilities that would connect to existing utility lines in the project area.

Water Facilities

The proposed project would connect new water lines to the existing water mains in Barrett Avenue and Hill Road. The construction of lateral connections would occur during grading and would result in minimal impacts. As discussed under Impact UTL-2 below, the City has sufficient water supply to meet the demands of the proposed project. Thus, the proposed project would not result in significant environmental impacts due to the construction of additional facilities to meet project demand. **(Less than Significant Impact)**

Storm Drainage

The proposed project would include two on-site bioretention basins located on the western side of the site and one in the northeastern portion of the site. Additionally, the project would include three subsurface stormwater treatment areas. One treatment area would be centrally located near the proposed pond, the second would be located south of the proposed houses on the east, and the third would be located south of the proposed houses on the southeast. The storm drain lines that connect to the existing retention basin, which would be removed as part of the project, would be removed. As discussed under Section 4.10 Hydrology and Water Quality, pre- and post-project flows would be consistent for design under a 25-year storm event.

Further, the project would be consistent with the City's Stormwater Management Guidance Manual for Low Impact Development and Post-Construction Requirements and Storm Drainage Master Plan. The proposed project would not require expansion of the City's existing storm drainage system. The final drainage system design for the project would be subject to review and approval by the City's Engineering Division, who would confirm that the proposed project would not result in an exceedance of existing capacity. For these reasons, the proposed project would not result in significant environmental impacts due to the construction of additional facilities. **(Less Than Significant Impact)**

Sanitary Sewer and Wastewater Treatment

The proposed project would connect new sewer lines to existing lines in Barrett Avenue. The design of the utility system serving the project would be reviewed by the Engineering Division to ensure that all sewer lines have adequate capacity to meet the demands of the various project components. The SCWRA Wastewater Treatment Plant would not need to be expanded solely to accommodate the increase in wastewater created by the proposed development (discussed under Impact UTL-3). Thus, the project would have a less than significant impact related to the relocation or construction of new wastewater treatment facilities. **(Less than Significant Impact)**

Electric Power, Natural Gas, and Telecommunications

The proposed project would connect to existing electric power, and telecommunication lines in the project area. Electric utilities would be provided by the Pacific Gas and Electric Company (PG&E). PG&E has easements for two existing gas lines on the eastern portion of the project site. The two gas lines would remain on the project site. For these reasons, the proposed project would not result in significant environmental impacts due to the construction of additional facilities. **(Less Than Significant Impact)**

b) Would the project have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Project Water Demand

The City's unit demand factor of 1,700 gpd per acre for Residential Detached Medium land uses was used to calculate the water demand. At 69.4 acres, the proposed project would have a water demand of 117,980 gpd. In addition, the proposed pond's non-potable water demand drawing supplies from the site's on-site well and federal pipeline in Hill Road would be 0.28 acre-feet per year (or 93,400 gallons per year or 255 gpd). In total, the project's water demand would be approximately 134 acre-feet per year (118,265 gpd or 43,655,055 gallons per year) compared to 117,979 gpd assumed for the site under the 2021 WSMP.

As discussed in Section 4.19.1.2 Existing Conditions, based on the 2021 WSMP, the City's groundwater supply wells have a remaining capacity of approximately 2.6 mgd. As a result, there would be sufficient water supplies available to serve the project and impacts would be less than

significant. Thus, the proposed project is considered consistent with the 2021 WSMP assumptions and General Plan. The project is also consistent with the City's Water Conservation Ordinance (the purpose of which is to reduce water consumption within the City of Morgan Hill through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water) because it would not introduce any water wasting features and would comply with General Plan Policies SSI-14.5 and SSI-14.8.

Based on the above discussion, there would be sufficient water supplies available to serve the project and impacts would be less than significant. **(Less than Significant Impact)**

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The proposed project would generate approximately 101,444 gpd of wastewater.[98] As discussed in Section 4.19.1.2 Existing Conditions, the SCRWA Wastewater Treatment Plant, which serves the Cities of Morgan Hill and Gilroy, has approximately 0.8 mgd of remaining capacity allocated for the City of Morgan Hill, and is undergoing an expansion project that would increase capacity from 8.5 mgd to 11 mgd. The project's wastewater flows alone would not cause the Plant to exceed capacity. The proposed project would not substantially increase wastewater generation beyond what is expected in the General Plan and Sanitary Sewer System Master Plan. Therefore, the project would not result in a determination by the SCRWA that it does not have adequate capacity to serve the wastewater treatment generated by the project. **(Less than Significant Impact)**

d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The City of Morgan Hill contracts with Waste Solutions Group to provide solid waste disposal and recycling services within the City. Waste Solutions Group will dispose of solid waste from the City at Kirby Canyon landfill or the Monterey Peninsula landfill. The Kirby Canyon landfill has a projected permitted capacity of approximately 36,400,000 cubic yards (9,828,000 tons) and is expected to remain open through 2059.[99,100] The Monterey Peninsula landfill has a projected permitted capacity of approximately 48,560,000 cubic yards (13,111,200 tons) and is expected to remain open through

[98] It is assumed that wastewater generated would be equivalent to 85 percent of the water demand.
[99] CalRecycle. *SWIS Facility Detail: Kirby Canyon Landfill (43-AN-0008)*. Accessed August 26, 2022. https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/3393.
[100] 1 cubic yard = 0.27 tons.

2106.[101] The project would generate approximately 390 tons of solid waste per year[102] or 2,356 pounds per day (compared to approximately 460 tons of solid waste per year or 2,780 pounds per day under existing General Plan assumptions).[103] The proposed project would increase the rate of solid waste generated at the site, but would not result in an exceedance of the capacity of local infrastructure.

The proposed project would comply with the state's solid waste reduction goal of 75 percent by 2025. The project would direct and recycle waste consistent with federal, state, and local requirements. For these reasons, the project would not generate solid waste in excess of state or local standards, in excess of the capacity of local infrastructure, or impair the attainment of solid waste reduction goals. **(Less than Significant Impact)**

e) Would the project be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste?

As discussed under checklist question d) above, the project would comply with local, state, and federal regulations related to solid waste. Therefore, the project would not conflict with these regulations. **(Less than Significant Impact)**

4.19.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant utilities and service systems impact?

The geographic area for cumulative utilities and services systems impacts is the City of Morgan Hill, except for impacts to the SCRWA WWTP, which serves Morgan Hill and Gilroy. As discussed under Impact UTL-2, the increase in water demand above what is assumed for the demand under the General Plan is negligible. The individual impacts of the project on utilities and service systems have been evaluated with respect to the cumulative conditions of the City's water, wastewater, stormwater, and solid waste infrastructure upon General Plan buildout. As discussed in Section 4.19.2.1 Impact Discussion, the SCRWA is undergoing a WWTP Facility Expansion Project that will expand the existing WWTP capacity from 8.5 mgd to 11 mgd to provide wastewater services to accommodate the planned growth identified in the City of Morgan Hill's and the City of Gilroy's General Plans. The project is expected to be completed in 2024. The environmental effects of the plant expansion were evaluated by SCRWA in an Initial Study/Mitigated Negative Declaration in August 2020.

[101] CalRecycle. *SWIS Facility Detail: Monterey Peninsula Landfill (27-AA-0010).* Accessed August 29, 2022. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2642?siteID=1976.
[102] Illingworth & Rodkin, Inc. *Morgan Hill Devco Air Quality Analysis, Morgan Hill, California. Attachment 2: CalEEMod Modeling Inputs and Outputs.* September 1, 2022.
[103] Proposed Project = 390 tons/yr x 2,205 lb/ton = 859,950 lb/yr / 365 days/year = 2,356 lb/day.
Existing General Plan Assumptions = 460 tons/yr x 2,205 lb/ton = 1,014,300 lb/yr / 365 days/year = 2,779 lb/day.

Cumulative projects in the City would be evaluated at a project level to ensure compliance with level of service standards for the utilities discussed above. Necessary improvements to utility service systems would be made to ensure the City's overall system is not impacted by combined growth. Impacts associated with utilities and service systems have already been accounted for in the City's General Plan. Under Section 15152(f) of the CEQA Guidelines, where a lead agency has determined that a cumulative effect has been adequately addressed in a prior EIR, the effect is not treated as significant for purposes of later environmental review and need not be discussed in detail. Thus, the proposed project would not result in a cumulatively considerable contribution to a significant utilities and service systems impact. **(Less than Significant Cumulative Impact)**

4.20 Wildfire

4.20.1 Environmental Setting

4.20.1.1 *Regulatory Framework*

State

Fire Hazard Severity Zones

CAL FIRE is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. Referred to as Fire Hazard Severity Zones (FHSZs), these maps influence how people construct buildings and protect property to reduce risk associated with wildland fires. FHSZs are divided into areas where the state has financial responsibility for wildland fire protection, known as state responsibility areas (SRAs), and areas where local governments have financial responsibility for wildland fire protection, known as local responsibility areas (LRAs). Homeowners living in an SRA are responsible for ensuring that their property is in compliance with California's building and fire codes. Only lands zoned for very high fire hazard are identified within LRAs.

California Fire Code Chapter 47

Chapter 47 of the California Fire Code sets requirements for wildland-urban interface fire areas that increase the ability of buildings to resist the intrusion of flame or burning embers being projected by a vegetation fire, in addition to systematically reducing conflagration losses through the use of performance and prescriptive requirements.

California Public Resources Code Section 4442 through 4431

The California Public Resources Code includes fire safety regulations that restrict the use of equipment that may produce a spark, flame, or fire; require the use of spark arrestors on construction equipment that uses an internal combustion engine; specify requirements for the safe use of gasoline-powered tools on forest-covered land, brush-covered land, or grass-covered land; and specify fire suppression equipment that must be provided onsite for various types of work in fire-prone areas. These regulations include the following:

- Earthmoving and portable equipment with internal combustion engines would be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (Public Resources Code Section 4442);
- Appropriate fire suppression equipment would be maintained during the highest fire danger period, from April 1 to December 1 (Public Resources Code Section4428);
- On days when a burning permit is required, flammable materials would be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor would maintain appropriate fire suppression equipment (Public Resources Code Section 4427); and

- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines would not be used within 25 feet of any flammable materials (Public Resources Code Section 4431).

California Code of Regulations Title 14

The California Board of Forestry and Fire Protection has adopted regulations, known as SRA Fire Safe Regulations, which apply basic wildland fire protection standards for building, construction, and development occurring in a SRA. The future design and construction of structures, subdivisions and developments in SRAs are required to provide for the basic emergency access and perimeter wildfire protection measures discussed in Title 14.

Fire Management Plans

CAL FIRE has developed an individual Unit Fire Management Plan for each of its 21 units and six contract counties. CAL FIRE has developed a strategic fire management plan for the Santa Clara County Unit, which covers the project area and addresses citizen and firefighter safety, watersheds and water, timber, wildlife and habitat (including rare and endangered species), unique areas (scenic, cultural, and historic), recreation, range, structures, and air quality. The plan includes stakeholder contributions and priorities and identifies strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work with the local fire issues.

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts due to hazards and hazardous materials. The following policies are applicable to the proposed project.

Morgan Hill 2035 General Plan Policies: Wildfire

Policy	Description
SSI-3.1	**Development in Fire Hazard Areas.** Minimize development in fire hazard areas and plan and construct permitted development so as to reduce exposure to fire hazards and to facilitate fire suppression efforts in the event of a wildfire.
SSI-3.2	**Wildfire Risks.** Avoid actions which increase fire risk, such as increasing public access roads in fire hazard areas, because of the great environmental damage and economic loss associated with a large wildfire.

City of Morgan Hill Wildland Urban Interface

The City adopted its Wildland Urban Interface map on March 18, 2009. The map shows high FHSZs and very high FHSZs within City limits.

City of Morgan Hill Emergency Operations Plan

The City's Emergency Operations Plan, updated annually, establishes the emergency organization, assigns tasks, specific policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements utilizing the Standardized Emergency Management System. The plan includes an analysis of natural and human-caused hazards, including wildfires. The plan states that narrow ingress/egress routes can impede residents' escape during a wildfire.

4.20.1.2 *Existing Conditions*

The project site is located approximately 200 feet west of a High Fire Severity Zone according to the City of Morgan Hill Wildland Urban Interface Map and CAL FIRE Fire Hazard Severity Zone Maps.[104,105]

4.20.2 Impact Discussion

For the purpose of determining the significance of the project's impact on wildfire, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

1) Substantially impair an adopted emergency response plan or emergency evacuation plan?
2) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
3) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?
4) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

4.20.2.1 *Project Impacts*

As discussed under Section 4.20.1.2, the project site is located approximately 200 feet west of a High Fire Severity Zone. However, the project site is not located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zones. Additionally, the project would comply with the City of Morgan Hill's Emergency Operations Plan. As discussed in Section 4.17 Transportation, the proposed project would be designed in accordance with City of Morgan Hill design standards. The proposed 26-foot-wide internal roadways would provide emergency vehicles (i.e., fire trucks) with sufficient space to access each of the residential units proposed on-site. There

[104] City of Morgan Hill. City of Morgan Hill Wildland Urban Interface Map. Accessed September 16, 2021. http://www.morganhill.ca.gov/DocumentCenter/View/3037/Fire-Hazard-Severity-Zones-Adopted3-18-09?bidId=.
[105] CAL FIRE. Fire Hazard Severity Zone Viewer. Map. Accessed July 5, 2022. https://egis.fire.ca.gov/FHSZ/

are several dead-end drive aisles within the development that would not provide sufficient space for emergency vehicles to turn around; however, the emergency vehicles would be able to back out of the roadways. Therefore, the project would not result in wildfire impacts. **(Less Than Significant Impact)**

4.20.2.2 *Cumulative Impacts*

The project site is not located in or near state responsibility areas or lands classified as Very High Fire Hazard Severity Zones; therefore, the project would not result in cumulative wildfire impacts. **(Less Than Significant Cumulative Impact)**

Section 5.0 Growth-Inducing Impacts

Would the project foster or stimulate significant economic or population growth in the surrounding environment?

The California Environmental Quality Act (CEQA) Guidelines require that an EIR identify the likelihood that a proposed project could "foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment (Section 15126.2[d]). This section of the Draft EIR is intended to evaluate the impacts of such growth in the surrounding environment. Examples of projects likely to have significant growth-inducing impacts include removing obstacles to population growth, for example by extending or expanding infrastructure beyond what is needed to serve the project. Other examples of growth inducement include increases in population that may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.

The proposed project proposes development on underutilized parcels of land. The project site is zoned as Residential Detached Medium Density (RDM) and has a General Plan land use designation of Residential Detached Medium which allows for construction of up to seven dwelling units per acre. The proposal includes a zoning amendment to add the Planned Development Combining District, which would allow a variety of unit types ranging from single-family detached units to multi-family attached units.

As discussed under Section 4.14 Population and Housing, the project would not induce substantial growth in the City, as it is consistent with the residential density envisioned for the site in the General Plan. The project would be compatible with neighboring land uses and would not pressure adjacent properties to redevelop with new or different land uses in a manner inconsistent with the General Plan. For these reasons, the project would not foster or stimulate substantial economic or population growth in the surrounding environment. **(Less than Significant Impact)**

Section 6.0 Significant and Irreversible Environmental Changes

This section was prepared pursuant to CEQA Guidelines Section 15126.2(c), which requires a discussion of the significant irreversible changes that would result from the implementation of a proposed project. Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, irreversible damage resulting from environmental accidents associated with the project, and irretrievable commitments of resources.

6.1 Use of Nonrenewable Resources

The demolition of the existing structures on the project site and construction of the proposed residential project would require the use and consumption of nonrenewable resources. Nonrenewable resources include fossil fuels and metals that cannot be regenerated over time.

As discussed in Section 4.6 Energy, energy would be consumed during both the construction and operational phases of the project. The demolition and construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., demolition of the existing buildings and grading), and the actual construction of the buildings. The operation of the proposed uses would consume energy (in the form of electricity and natural gas) for building heating and cooling, lighting, water heating, and the operation of appliances and electronic equipment. Operational energy would also be consumed during each vehicle trip associated with the project.

6.2 Change in Land Use

The development on the site would serve several purposes, including utilization of underutilized land to provide housing in the area, efficient use of existing roadways with available capacity and infrastructure within the City limits, expansion of an existing park to include additional amenities, and providing infrastructure to address drainage/flooding issues in the vicinity of the project site. Although the project would commit future generations to more development on this site and would result in the loss of irreplaceable farmland, the project would benefit the City and the region by providing residential development that is consistent with the General Plan, that would help the City meet its regional housing needs allocation, including units designed for seniors, and in proximity to regional transportation systems, such as US 101 and major City thoroughfares.

6.3 Irreversible Damage from Environmental Changes

Implementation of the project would result in the development of a property designated as prime farmland, whose loss would be irreversible. The mitigation measures outlined in this Draft EIR would reduce all such potential irreversible or nearly irreversible effects to less than significant

levels, with the exception of the irreversible loss of prime farmland. Impacts to farmland cannot be mitigated to less than significant levels, as discussed in Section 4.2 Agriculture and Forest Resources and in Section 7.0 Significant and Unavoidable Impacts.

Section 7.0 Significant and Unavoidable Impacts

The project would result in the significant unavoidable impacts discussed below. All other impacts of the proposed project would be mitigated to a less than significant level with incorporation of applicable project-level mitigation measures identified in this EIR.

Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The City of Morgan Hill adopted its Agricultural Lands Preservation Program (Preservation Program) in November 2014 to preserve potential agricultural land subject to development. Lands classified as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, or Grazing Land under the California Department of Conservation Farmland Mapping Program are covered under the Preservation Program. As mentioned, the project site contains 44 acres of Prime Farmland and five acres of Farmland of Statewide Importance. The project proposes to develop the site with residential uses. Conversion of the above-mentioned farmland types to residential uses would constitute a significant impact to agricultural resources, for which no feasible mitigation exists to replace the lost resources. The project providing funding for the Preservation Program would help prevent the conversion of other farmland, but it would not result in newly created or restored farmland to offset the lost acreage.

Please refer to Section 4.2 Agriculture and Forestry Resources for analysis and mitigation measures.

Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

As stated in Section 4.17 Transportation, the Morgan Hill citywide average VMT per capita is currently 24.64. The impact threshold of 15 percent below the citywide average VMT per capita equates to 20.94 VMT per capita. The project is estimated to generate 33.25 VMT per capita, which would exceed the impact threshold of 20.94 VMT per capita. The project would implement mitigation measures/TDM measures such as voluntary travel behavior change programs to reduce VMT. Implementation of the above mitigation measures would reduce the project's VMT per capita to 29.55. The reduced VMT per capita, however, would still be greater than the impact threshold of 20.94 VMT per capita, and no additional feasible measures are available, therefore project VMT would remain significant and unavoidable.

Please refer to Section 4.17 Transportation for analysis and mitigation measures.

Section 8.0 Alternatives

8.1 Introduction

CEQA requires that an EIR identify and evaluate alternatives to a project as it is proposed. Two key provisions from the CEQA Guidelines pertaining to the discussion of alternatives are provided below:

> **Section 15126.6(a).** Consideration and Discussion of Alternatives to the Proposed Project. An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.
>
> **Section 15126.6(b).** Purpose. Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if those alternatives would impede to some degree the attainment of the project objectives, or be more costly.

Other elements of the Guidelines discuss that alternatives should include enough information to allow a meaningful evaluation and comparison with the proposed project. The CEQA Guidelines state that if an alternative would cause one or more additional impacts, compared to the proposed project, the discussion should identify the additional impact, but in less detail than the significant effects of the proposed project. The CEQA Guidelines emphasize a commonsense approach – the alternatives should be reasonable, "foster informed decision making and public participation," and focus on alternatives that avoid or substantially lessen the significant impacts. CEQA requires a range of alternatives necessary to permit a reasoned choice.

The three critical factors to consider in selecting and evaluating alternatives are, therefore: 1) the significant impacts from the proposed project which could be reduced or avoided by an alternative, 2) the project's objectives, and 3) the feasibility of the alternatives available. Each of these factors is discussed below.

8.2 Significant Impacts of the Project

As mentioned in Section 7.1 Introduction above, the CEQA Guidelines advise that the alternatives analysis in an EIR should be limited to alternatives that would avoid or substantially lessen any of the significant effects of the project and would achieve most of the project objectives. As discussed previously in this EIR, the project would result in a significant, unavoidable impact to agricultural resources as a result of conversion of Prime Farmland and Farmland of Statewide Importance, as well as significant, unavoidable VMT impacts from project residents' daily travel.

Alternatives may also be considered if they would further reduce impacts that are already less-than-significant as a result of the project's proposed mitigation. Impacts that would be significant but would be reduced by mitigation include impacts to biological resources, cultural resources, greenhouse gas emissions, and hazardous materials. The alternatives discussion does not focus on project impacts that have been determined to be less than significant.

8.3 Project Objectives

While CEQA does not require that alternatives meet all of the project objectives, their ability to meet most of the objectives is considered relevant to their consideration.

As identified in Section 2.3 Project Objectives, the applicant's objectives for the project are as follows:

- Provide market rate housing with multiple housing types and a variety of lot sizes. These include small-lot single-family and senior housing.
- Concentrate the highest density residential units in the center of the site and decrease densities towards the site's perimeter.
- Provide age-restricted housing with caregiver-in-residence (ADU) opportunities in single-family detached units.
- Create a visually appealing pedestrian corridor along Barrett Avenue and Hill Road.
- Implement improvements to provide public and private vehicular and pedestrian circulation, including the trail connection from Jackson Park to Hill Road.
- Provide traffic calming measures on Barrett Avenue that include a "local" street section, a turning circle, and a re-aligned roadway on the project site.
- Provide infrastructure to improve the current drainage/flooding issues near the Hill/Barrett intersection and within Jackson Park.
- Increase passive and active open space throughout the project site.
- Expand Jackson Park to include additional amenities and pedestrian access from the proposed project.

8.4 Feasibility of Alternatives

CEQA, the CEQA Guidelines, and the case law on the subject have found that feasibility can be based on a wide range of factors and influences. The CEQA Guidelines advise that such factors can include (but are not necessarily limited to) the suitability of an alternative site, economic viability, availability of infrastructure, consistency with a general plan or with other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can "reasonably acquire, control or otherwise have access to the alternative site (Section 15126.6[f][1])."

8.5 Selection of Alternatives

8.5.1 Alternatives Considered but Rejected

8.5.1.1 *Location Alternative*

The CEQA Guidelines encourage consideration of an alternative site when significant effects of the project might be avoided or substantially lessened (Section 15126.6(f)(2)(A)). Only locations that would avoid or substantially lessen any of the significant impacts of the project and meet most of the project objectives need be considered for inclusion in the EIR. However, there is no requirement that an EIR must include evaluation of a location alternative, "An EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project,…" (Section 15126.6(a)).

The project proposes a development of approximately 69 acres and, accordingly, an alternative site would need to be at least of comparable size, within an area of Morgan Hill close to the US Highway 101 and have adequate transit access, roadway access, and utility capacity to serve the development proposed. To avoid the project's impacts, the alternative site would have to not contain irreplaceable agricultural resources and be located in a low VMT area where project VMT would be at or below the impact threshold of 20.94 VMT per capita.

In order to identify an alternative site that might be reasonably considered to "feasibly accomplish most of the basic purposes" of the project, and would also reduce significant impacts, it was assumed that such a site would ideally have the following characteristics:

- Approximately 69 acres in size;
- Served by available infrastructure;
- Available for development;

Any project of this size and intensity within Morgan Hill would be expected to have similar operational impacts, apart from VMT, as well as impacts associated with project construction. An alternative site near high quality transit (e.g., Morgan Hill Caltrain Station) would reduce VMT. However, no similarly sized parcels are available that would accommodate the size of the project near transit. Additionally, similarly sized parcels are likely to consist of farmland similar to the

subject site, and development of residential uses consistent with the project would likely also result in loss of farmland on similarly sized parcels.

8.5.1.2 *Reduced Scale Alternative*

The evaluation of VMT is per capita, and so reducing the unit count by a substantial percentage, e.g., 50 percent or 75 percent, would not reduce the per capita VMT from a project with substantially fewer units. VMT per capita is largely a function of a site's location and the availability of nearby transit and services to reduce the need for vehicle trips to meet daily needs. Accordingly, a reduced size project on the site or an alternative design that achieves the same unit count with a smaller footprint, leaving more of the site in open space or even agricultural use, would not serve to reduce the per capita VMT from residential development on even a portion of the site. For these reasons, the reduction of the site's significant and unavoidable VMT is not capable of reduction through an alternative development scenario on the site, whether in scale or design. Any residential development on the site will result in a significant and unavoidable VMT impact by virtue of the site's location and the limited availability of transit.

8.5.2 Analyzed Alternatives

In addition to a "No Project" alternative, the CEQA Guidelines advise that the range of alternatives discussed in the EIR should be limited to those that "would avoid or substantially lessen any of the significant effects of the project" (Section 15126.6[f]). The discussion below addresses alternatives which could reduce project impacts and are feasible from a physical land use and infrastructure perspective. This Draft EIR does not evaluate the financial or economic feasibility of the alternatives presented.

The following evaluation of possible alternatives to the project as it is proposed includes:

- No Project Alternative as required by CEQA (Section 15126.6[e]),
- No Project – Developed Under Existing General Plan/Zoning Development Alternative
- Reduced Footprint – Agricultural Preservation Alternative
- No Riparian Encroachment Alternative

The components of these alternatives are described below, followed by a discussion of their impacts and how they would differ from those of the proposed project.

8.6 Project Alternatives

8.6.1 No Project Alternative

The CEQA Guidelines specifically require consideration of a "No Project" alternative. The purpose of including the No Project Alternative is to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project. The CEQA Guidelines specifically advise that the No Project Alternative is "what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with

available infrastructure and community services." The CEQA Guidelines emphasize that an EIR should take a practical approach, and not "…create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment" (Section 15126.6[e][3][B]).

Currently, the project site is mostly undeveloped and consists of grassland and fallowed agricultural fields. Four vacant structures, formerly used for agricultural purposes, are located on the southwestern section of the site. Under the No Project Alternative, the project site could remain as is or it is reasonable to conclude that if the current project is not implemented, another development application would at some point be filed with the City proposing to develop the site with housing consistent with the site's General Plan designation and zoning. For these reasons, there are two possible No Project alternatives: 1) a No Project/No Development Alternative and 2) a No Project/Existing Plan Development Alternative.

8.6.1.1 *No Project/No Development Alternative*

Comparison of Environmental Impacts

The No Project/No Development Alternative would maintain the existing site conditions, and return the site to active agricultural uses, and thereby avoid all of the project's environmental impacts, including the significant and unavoidable impacts related to agriculture (as a result of conversion of Prime Farmland and Farmland of Statewide Importance) and residential VMT. Project impacts that would be less than significant with mitigation measures, including biological resources, cultural resources, hazardous materials, greenhouse gas emissions, and transportation impacts, would also be avoided under the No Project Alterative. Additionally, under this alternative, the project site would remain agricultural land, which currently has a water demand of approximately 140 acre-feet per year.[106] Comparatively, as discussed in Section 4.19 Utilities and Service Systems, the project's water demand would be 134 acre-feet per year.

Relationship to Project Objectives

The No Project/No Development Alternative would not meet any of the project's objectives. The No Project Alternative would not construct a residential development that provides market-rate and age-restricted housing. Additionally, this alternative would not meet the applicant's objectives of providing traffic calming measures on Barrett Avenue and re-aligning the roadway, providing infrastructure to improve the drainage/flooding issues near the Hill/Barrett intersection, increasing passive and open recreational park space, or expanding Jackson Park.

Conclusion

The No Project/No Development Alternative is an environmentally superior alternative to the proposed project. Because the No Project/No Development Alternative would not result in any new development on the site, this alternative would avoid all environmental impacts of the project. This

[106] Water usage for irrigation of row crops is two acre-feet of water per one acre of crops. The project site is approximately 70 acres. 2 AFY/acre/year x 70 acre = 140 AFY/year.

alternative would not, however, meet any of the applicant's project objectives and it would not implement the site's General Plan land use designation of Medium Density Residential.

8.6.1.2 *No Project – Developed Under Existing General Plan/Zoning Development Alternative*

Under the No Project – Developed Under Existing General Plan/Zoning Development Alternative, the project site would be developed in conformance with the existing General Plan designation. The site is zoned as Residential Detached Medium Density and has a General Plan designation of Residential Detached Medium, which allows for up to seven dwelling units per acre. The project proposes a zoning amendment to allow a variety of unit types ranging from single-family detached units to multi-family attached units, consistent with the site's land use designation.

Table 8.6-1 below provides a trip generation comparison with the residential development that can be reasonably expected (336 single-family detached units) using General Plan assumptions and the proposed project. The calculation for the 336 single-family detached units is based on 70 percent of the project site being developed at the allowable density of seven units per acre.[107] The units under this alternative would not be assumed to be age-restricted, and with an average household size of 2.93, the population would be projected to be approximately 951.

[107] The percentage of land subtracted from gross acreage to determine net acreage for density of a site varies depending on the location and specific zoning regulations, but typically falls between 20 and 30 percent. Because of the presence of Tennant Creek on the project site, 30 percent of land is subtracted from the developable area. 69 acres – 30% = 48 acres * 7 units/acre = 336 units.
Source: Personal correspondence. Tiffany Brown, Senior Planner, City of Morgan Hill. September 11, 2023.

Table 8.6-1: Project Trip Generation Estimates

Land Use	Size (units)	Daily		AM Peak Hour			PM Peak Hour		
		Rate	Trips	In	Out	Total	In	Out	Total
General Plan 2035 Land Use[1]									
Single-Family Detached Housing (ITE LU #210)[2]	336	9.44	3,172	62	187	**249**	210	123	**333**
Proposed Project Land Use[3]									
Single-Family Detached Housing (ITE LU #210)[2]	309*	9.44	2,917	57	172	**229**	193	113	**306**
Senior Adult Housing Detached (ITE LU 251)[2]	21	6.78	143	4	8	**12**	9	5	**14**
Senior Adult Housing Attached (ITE LU 252)[2]	34	3.27	111	2	5	**7**	6	4	**10**
Total	364	--	3,170	63	185	**248**	208	122	**330**
Difference in Trips (General Plan Assumed Land Uses - Proposed Project)	--	--	*2*	*1*	*2*	***1***	*2*	*1*	***3***

[1] The General Plan 2035 TDF model assumed the project site would be developed with 139 single-family units. However, 139 units is not considered a reasonably foreseeable assumption for the project site. The existing General Plan density for the site is up to seven units per acre, which would allow for a maximum of 483 units to be developed on the 69-acre project site. Based on a midpoint of allowable density and a 30 percent reduction of development area due to the creek on-site, the project site could foreseeably be developed with 336 units under General Plan assumptions.

[2] Source: ITE Trip Generation Manual, 10th Edition 2017.

[3] Source: Hexagon. *New Horizons Residential Development.* May 22, 2023.

* The project's 223 single-family houses, 42 court houses, and 44 ADUs are conservatively included as single-family detached housing.

Comparison of Environmental Impacts

Assuming the site is developed according to the existing General Plan land use designations, the No Project – Developed Under Existing General Plan/Zoning Alternative would result in 3,172 daily trips with 249 trips during the AM peak hour and 333 during the PM peak hour, which values are very nearly equivalent to the project trip generation.

When compared to the proposed project, the No Project – Developed Under Existing General Plan/Zoning Development Alternative would result in slightly higher but nearly the same daily trips, AM peak hour trips, and PM peak hour trips. Since the No Project – Developed Under Existing

General Plan/Zoning Alternative would result in nearly the same daily trips as the proposed project, this alternative would result in similar mobile operational criteria pollutant and GHG emissions. Given that the Alternative would increase vehicle traffic compared to current conditions, the No Project – Developed Under Existing General Plan/Zoning Development Alternative would slightly increase roadway traffic noise, similar to the proposed development. This alternative would also have a fewer number of residents (951) compared to the proposed project (975); therefore, this alternative would have a slightly lesser impact on water, sanitary sewer, and solid waste facilities than the proposed project. Given the VMT is estimated in terms of VMT per capita, the No Project – Developed Under Existing General Plan/Zoning Development Alternative would have the same VMT per capita as the proposed project (33.25 VMT per capita without mitigation and 29.55 VMT per capita with mitigation). As with the proposed project, the alternative's VMT per capita would still be above the citywide threshold. Therefore, this alternative would also have a significant and unavoidable VMT impact, indicating virtually any residential development on the site would have similar result.

In regard to biological resources, because the No Project – Developed Under Existing General Plan/Zoning Development Alternative would involve more flexibility to design the project and avoid encroachment within the 35-foot riparian setback and, therefore, would have a less than significant impact on riparian habitat, and would be environmentally superior to the project with regard to riparian impacts. By contrast, the project would include a portion of an emergency access road and portions of residential lots within the 35-foot setback which would affect riparian habitat (due to encroachment into Tennant Creek and the unnamed ephemeral stream). Mitigation would be required to reduce project impacts to riparian habitat to a less than significant level (as discussed in Section 4.4, Biological Resources).

Similar to the proposed project, the No Project – Developed Under Existing General Plan/Zoning Development Alternative would still likely entail development activity across the majority of the project site and result in similar site disturbance. Therefore, the No Project Developed Under Existing General Plan/Zoning Development Alternative Existing Plan Alternative will have impacts similar to the proposed project related to aesthetics, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and tribal cultural resources. This alternative would also result in significant and unavoidable impacts to agricultural resources.

Relationship to Project Objectives

The No Project – Developed Under Existing General Plan Zoning/Development Alternative could meet most of the project's objectives, such as providing market-rate housing, creating a visually appealing corridor along Barrett Avenue and Hill Road, improving roads and circulation, providing traffic calming measures, providing infrastructure to improve drainage/flooding issues, providing open space, and expanding Jackson Park. While the project proposes 320 primary residences, this alternative would result in a higher number of units because the General Plan EIR assumed 336 units would be constructed on-site, which aligns with the proposed project objectives. However, the No Project – Developed Under Existing General Plan Zoning/Development Alternative would not meet the project objective to provide a mix of unit types or age-restricted units.

Conclusion

The No Project – Developed Under Existing General Plan Zoning/Development Alternative is not an environmentally superior alternative to the proposed project because it would result in similar development on site and similar environmental impacts associated with the amount of development included in the project, but would result in similar impacts to agricultural resources and transportation (i.e., per capita VMT). The alternative, however, would not meet the applicant's project objectives to the same degree because it would not specifically provide a mix of unit types or age-restricted units.

8.6.2 Reduced Footprint – Agricultural Preservation Alternative

As described in this EIR, the proposed project would result in significant and unavoidable impacts to agricultural resources and transportation (per capita VMT), and significant but mitigable impacts from operational greenhouse gas emissions, biological resources during construction, hazardous materials, and construction noise. The purpose of the Reduced Footprint Agricultural Preservation alternative is to reduce the identified impacts to agricultural resources.

The site consists of approximately 44 acres of Prime Farmland, five acres of Farmland of Statewide Importance, and approximately 20 acres of Other Land. To preserve the agricultural land, the agricultural preservation alternative could reduce the size of the project or change the residential unit mix (i.e., reduce number of residences proposed, or replace single-family units with multi-family units which would require a General Plan and/or Zoning Amendment) in order to include all development within the 20 acres of non-agricultural land. Reducing the footprint of the site so that the residential development is only on the western portion of the site (Other Land) and retaining the 49 acres of agricultural land would avoid the significant impact to Prime Farmland and Farmland of Statewide Importance. The project's footprint would be reduced by approximately 70 percent and, assuming the development of the same type of housing units, the number of units would be reduced to approximately 102 units.

Comparison of Environmental Impacts

The project would result in a significant and unavoidable impact to agricultural resources as it results in the loss of 44 acres of Prime Farmland and five acres of Farmland of Statewide Importance. The Reduced Footprint Agricultural Preservation Alternative would not include development on farmland and, therefore, would avoid the significant impact to agricultural resources. This alternative would require a reduction of 70 percent of the project units to maintain the same mix of unit types, site layout, and project amenities as the proposed project, but on the 30 percent of the site acreage that is not farmland. To maintain the full unit count on 30 percent of the site acreage would require a substantially more dense residential unit type (i.e., multi-story attached unit housing) than allowed by the current General Plan land use designation, and a substantially revised site layout that avoided the farmland.

As described in Section 4.17, Transportation, the proposed project would result in a significant and unavoidable VMT impact with and without mitigation (33.25 VMT per capita without mitigation and 29.55 VMT per capita with mitigation). Given the significant and unavoidable VMT impact is based on the location of the site, as well as the lack of jobs and transit in the City, this alternative would also result in a significant and unavoidable per capita VMT impact, as the units developed on the portion of the site mapped as less important Other Land would still have high VMT per capita due to the site location.

The project's GHG emissions for 2030 were calculated on a per capita basis and compared to an efficiency metric of 2.8 MT CO2e/service population. With the implementation of mitigation measures included in Section 4.8, Greenhouse Gas Emissions, the project's operational GHG emissions would be less significant. Reducing the project footprint and number of units by 70 percent would not affect the per capita GHG emissions, which would continue to require mitigation to be reduced below the applicable threshold.

Given the alternative would reduce the number of residents by 70 percent, the water, wastewater, and solid waste demands would be lower than the proposed project's demands. This alternative would result in less operational criteria pollutant emissions due to fewer trips generated from the site. Given the smaller project may result in a shorter construction period, construction noise impacts to nearby residents would be reduced, however, the construction noise mitigation measures would still be required.

The alternative would limit development to the 20 acres of Other Land located along the western portion of the site. Tennant Creek is located directly north and west of the Other Land, and the unnamed ephemeral stream is located in the northeastern portion of the project site, which would not be considered for development under this alternative. As such, future projects would avoid encroachment within the 35-foot riparian setback and, therefore, would have a less than significant impact on riparian habitat, and would be environmentally superior to the project with regard to riparian impacts. By contrast, the project would include a portion of an emergency access road and portions of residential lots within the 35-foot setback which would affect riparian habitat (due to encroachment into Tennant Creek and the unnamed ephemeral stream). Mitigation would be required to reduce project impacts to riparian habitat to a less than significant level (as discussed in Section 4.4, Biological Resources).

The Agricultural Preservation alternative would have impacts similar to the proposed project related to aesthetics, construction air quality, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, construction noise, and tribal cultural resources, given 20 acres would still be subject to development.

Relationship to Project Objectives

The Reduced Footprint – Agricultural Preservation Alternative would avoid the significant and unavoidable agricultural resources impact but would not avoid the significant and unavoidable VMT impact. This alternative could meet most of the project objectives; however, by only achieving 30

percent of the proposed housing units, this alternative would not achieve the project objective of providing market-rate and senior housing to the same degree as the project. Additionally, an agricultural use on this site would be inconsistent with the General Plan land use designation.

Conclusion

The Reduced Footprint – Agricultural Preservation Alternative is an environmentally superior alternative to the proposed project because it would reduce significant and unavoidable impacts to agricultural resources. However, the project would result in similar significant and unavoidable impacts to VMT, and would continue to require mitigation measures for a number of other significant impacts resulting from project construction and operation, and the alternative would not meet the project's housing objectives to the same degree.

8.6.3 No Riparian Encroachment Alternative

As described in this EIR, the project would result in significant impacts to biological resources because it would include a portion of an emergency access road and portions of residential lots within the 35-foot setback which would affect riparian habitat. As discussed in Section 4.4 Biological Resources, this significant impact could be mitigated through implementation of MM BIO-2.1, which requires the project applicant to compensate for new urban development within the setback. The purpose of the No Riparian Encroachment Alternative is to avoid identified impacts to biological resources, specifically regarding riparian encroachment.

Under the No Riparian Encroachment Alternative, project development would occur outside of the 35-foot riparian setback zone, and therefore, would have a less than significant impact on riparian habitat. This alternative would require a reduction in the 0.02-acre (871 square foot) yard area of the residential lot, a 0.10-acre (4,356 square foot) reduction or relocation of the emergency access road, and a relocation of 0.06-acres (2,613 square foot) of the drainage channel.

Comparison of Environmental Impacts

The project would result in an impact due to the encroachment of 0.18 acres of the riparian setback area. The project would include a portion of an emergency access road and portions of yard areas within one residential lot within the 35-foot setback area.

Under the No Riparian Encroachment Alternative, the project would have no significant biological resources impacts regarding riparian encroachment and would not require the project applicant to apply for and obtain an exception under the Habitat Plan. The alternative would avoid significant impacts to riparian areas. Impacts to other environmental topics and resources would remain the same, and continue to result in significant and unavoidable impacts to agricultural resources and to VMT.

Relationship to Project Objectives

The No Riparian Encroachment Alternative would be able to meet the project's objectives. This alternative would include virtually the same project design, with smaller yard area at one residential lot and a reduction or relocation of the emergency access road to ensure buildings are not within the 35-foot riparian setback area. The No Riparian Encroachment Alternative would include the zoning amendment proposed by the project and would thus allow for the construction of a variety of unit types ranging from single-family units to duets.

Conclusion

The No Riparian Encroachment Alternative is an environmentally superior alternative to the proposed project because it would reduce impacts to biological resources by limiting encroachment into riparian areas. However, the alternative would result in similar significant and unavoidable impacts to VMT and to agricultural resources.

8.6.4 Environmentally Superior Alternative

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. Based on the above discussion, the environmentally superior alternative to the proposed project is the No Project / No Development Alternative because all of the project's significant environmental impacts would be avoided by leaving the site in its current condition. However, Section 15126(e)(2) states that "if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Among the alternatives that assume some development on the site, the environmentally superior alternative is the Reduced Footprint – Agricultural Preservation Alternative, since this alternative avoids one of the project's significant and unavoidable impacts. However, this alternative would only partially achieve project objectives by developing approximately 102 units. Among the other alternatives that allow for some development on the site, the No Riparian Encroachment Alternative would also be environmentally superior since it avoids impacts to riparian habitat and achieves all of the project objectives, although it continues to result in significant and unavoidable impacts to agricultural resources and to VMT. Although the No Project – Developed Under Existing General Plan Zoning/Development Alternative would avoid impacts to biological resources by avoiding encroachment in riparian habitat, it would not be environmentally superior to the proposed project because it would develop 336 residential units (16 more than would be developed by the proposed project) and result in nearly equivalent impacts to all other resources areas.

Table 8.6-2 summarizes the level of impact for the proposed project and each project alternative.

Table 8.6-2: Comparison of Impacts from Alternatives to the Proposed Project

Significant Impacts of the Proposed Project	Level of Impact			
	No Project – No Development	**No Project - Developed Under Existing General Plan/Zoning Alternative**	**Reduced Footprint – Agricultural Preservation Alternative**	**No Riparian Encroachment Alternative**
Agricultural Resources	Avoided	Similar	Avoided	Similar
Biological Resources	Avoided	Less	Less	Less
Cultural Resources	Avoided	Similar	Similar	Similar
Greenhouse Gas Emissions	Avoided	Similar	Similar	Similar
Hazards/Hazardous Materials	Avoided	Similar	Similar	Similar
Noise	Avoided	Similar	Similar	Similar
Tribal Cultural Resources	Avoided	Similar	Similar	Similar
Transportation Traffic	Avoided	Similar	Similar	Similar
Meets Project Objectives	No	Not fully	Not Fully	Yes
Environmentally Superior Alternative	Yes	No	Yes	Yes

Avoided: No impact.

Similar: Similar to the proposed project.

Less: Substantial impact reduction compared to the proposed project, but not to a less than significant level.

Greater: Substantially greater impact than proposed project.

Section 9.0 References

The analysis in this Environmental Impact Report is based on the professional judgement and expertise of the environmental specialists preparing this document, based upon review of the site, surrounding conditions, site plans, and the following references:

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Section 11.0 Acronyms and Abbreviations

AB	Assembly Bill
ADU	Accessory dwelling unit
APN	Assessor's Parcel Number
BAAQMD	Bay Area Air Quality Management District
bgs	Below ground surface
CAP	Clean Air Plan
CARB	California Air Resources Board
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CO	Carbon monoxide
CO_2	Carbon dioxide
DPM	Diesel particulate matter
DSOD	Division of Safety of Dams
EIR	Environmental Impact Report
EPA	United States Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHGs	Greenhouse gases
HOV	High-occupancy vehicle
LID	Low impact development
LOS	Level of service
MHFD	Morgan Hill Fire Department
MHPD	Morgan Hill Police Department
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zones
NFIP	National Flood Insurance Program
NOD	Notice of Determination

NOI	Notice of Intent
NOP	Notice of Preparation
NO_x	Nitrogen oxides
NO_2	Nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
O_3	Ground-level ozone
OITC	Outdoor-Indoor Transmission Class
OPR	Office of Planning and Research
PM	Particulate matter
PPV	Peak Particle Velocity
RCP	Reinforced concrete pipe
RDM	Residential Detached Medium Density
ROG	Reactive organic gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SFHA	Special Flood Hazard Area
SMARA	Surface Mining and Reclamation Act
SMGB	State Mining and Geology Board
SO_x	Sulfur oxides
STC	Sound Transmission Class
SWPPP	Storm Water Pollution Prevention Plan
SR	State Route
TACs	Toxic Air Contaminants
UGB	Urban Growth Boundary
USFWS	United States Fish and Wildlife Service
VMT	Vehicle miles traveled