SCH#: 2021010358

Draft Environmental Impact Report

Crosswinds Residential Project

File Numbers: EA2020-0007, SD2020-0003, and SR2020-0010: Half – Dividend (Crosswinds)

Prepared by the

CITY OF MORGAN HILL

In Consultation with

DAVID J. POWERS & ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS & PLANNERS

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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 Crosswinds 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 33-acre project site is located at the intersection of Half Road and Mission View Drive in the City of Morgan Hill. The project proposes to construct a total of 269 new residential units, comprised of 56 single-family, 64 duets[1], and 149 condominium units. The project would provide a total of 606 parking spaces, including 538 covered spaces for residences, and 68 uncovered parking spaces for visitors.

The project would include recreational areas including a clubhouse, pool, children's play area, and barbeque/picnic areas. The project would also include pedestrian paths, and landscaping, including trees and lawn areas. The EIR evaluates two project options related to the management of stormwater. Under Option 1, stormwater runoff would be directed to underground retention facilities designed for a 25-year, 24-hour storm event and under Option 2, 100 percent of stormwater from the site would be directed to underground retention facilities designed for a 100-year, 24-hour storm event (as described in further detail in Section 3.2 Project Description).

1.2 SUMMARY OF SIGNIFICANT IMPACTS

The following table 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] A duet unit is a residential unit that is attached to one other residential unit.

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
Significant Impacts	**Mitigation and Avoidance Measures**
Agriculture	
Impact AG-1: The project would 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. **(Significant and Unavoidable Impact with Mitigation Incorporated)**	**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 16 acres of Prime Farmland will 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.
Biological Resources	
Impact BIO-1: The project would not 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. **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-1.1:** Construction shall be scheduled to avoid the nesting season. If construction can be scheduled to occur between September 1st and January 31st (inclusive) to avoid the raptor nesting season, no impacts will be expected. If construction will take place between February 1st and August 31st, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. Performance of the required surveys for

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
Significant Impacts	**Mitigation and Avoidance Measures**
	construction occurring between February 1st and August 31st will ensure that impacts to nesting raptors are reduced to less than significant. Surveys will be completed within 30 days of the on-set of site clearing or construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, buildings) onsite trees as well as all trees within 250 feet of the site for nests. The pre-construction survey shall be submitted to the City's Development Services Director or the Director's designee for review prior to tree removals or issuance of a grading permit. **MM BIO-1.2:** 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 disturbance-free buffer zone to be established around the nest (typically 250 feet for raptors and 50-100 feet for other species) that will remain off limits to construction until the nesting season is over, to ensure that no nests of species protected by the Migratory Bird Treaty Act and California Fish and Wildlife Code will be disturbed during project implementation. A report indicating the result of the survey and any designated buffer zones shall be submitted to the satisfaction of the City's Development Services Director or Director's designee prior to issuance of a grading permit.
Impact BIO-5: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **(Less than Significant Impact with Mitigation Incorporated)**	**MM BIO-5.1:** The project applicant shall comply with local ordinances and submit permit applications for removal, trimming, damage, or relocation of all trees covered by the City ordinance. Any trees to be removed shall require replacement at a two-to-one ratio on a comparable ratio of size. The replacement trees shall be planted on site to the extent feasible and the project proponent shall comply with all other replacement requirements imposed by the City. Prior to tree removal, the project applicant shall apply for a tree removal permit, which will be reviewed by the City's Development Services Director or Director's designee.

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
Significant Impacts	**Mitigation and Avoidance Measures**
Cultural Resources	
Impact CUL-2: Demolition and construction activities on the project site could unearth sensitive archaeological resources. **(Less than Significant Impact with Mitigation Incorporated)**	**MM CUL-2.1:** 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 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 (includes demolition and moving of heavy equipment on site) 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. 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

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

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
Significant Impacts	**Mitigation and Avoidance Measures**
	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 Coroner if considered prudent to avoid further disturbances. (g) The contractor foreman or authorized representative, or party who made the discovery

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

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
Significant Impacts	**Mitigation and Avoidance Measures**
	(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-2.2:** 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 generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less than Significant Impact with Mitigation Incorporated)**	**MM GHG-1.1:** The project applicant shall develop a GHG reduction plan to reduce GHG emissions in the build-out year by 206 MT/year prior to issuance of a grading permit and to the satisfaction of the City's Development Services Director or Director's designee. These reductions shall be kept in place by the project until the City adopts a qualified GHG reduction plan (consistent with CEQA Guidelines Section 15183.5) that contains goals and associated strategy to decrease emissions in a manner consistent with meeting the State's interim 2030 GHG emissions reduction target of 40 percent below 1990 levels. **MM GHG-1.2:** A combination of the GHG reduction elements listed below would reduce project GHG impacts. The project applicant shall implement some or all of the following elements to further reduce GHG emission from operation of the project and the service population efficiency metric such that the metric would be below the significance threshold. The GHG reduction elements to be included within the project shall be verified prior to the issuance of a building permit and shall be to the satisfaction of

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
Significant Impacts	**Mitigation and Avoidance Measures**
	the City's Development Services Director or Director's designee. • Prior to issuance of any building permits, the project applicant shall submit a Transportation Demand Management (TDM) Plan, which would include measures to reduce vehicle miles traveled (VMT) and GHG emissions, to the City's Development Services Director or Director's designee; • The TDM Plan shall be implemented by the Homeowners Association (HOA) once the proposed residences are occupied. • The project applicant shall install solar power systems or other renewable electric generating systems that provide electricity to power on-site equipment and possibly provide excess electric power; • The project applicant shall provide infrastructure for electric vehicle charging for residential units (i.e., provide 220 VAC power); and, • The project applicant shall increase water conservation above state average conditions for residential uses by installing low flow water utilities and irrigation. **MM GHG-1.3:** The project applicant shall purchase verifiable carbon emission offsets through a verified registry for remaining amount of GHG reduction required, after exhausting on-site reduction options prior to issuance of a building permit. Offsets shall be determined by calculating the total estimated number of GHG emissions the project would create over a 30-year period, and purchasing verifiable offsets based on the calculated number of GHG emissions.
Hazards and Hazardous Materials	
Impact HAZ-2: The project would 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	**MM HAZ-2.1:** Since lead-impacted soils are determined to be present in concentrations above established regulatory environmental screening levels, the project applicant shall enter into the Santa Clara County Department of

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
Significant Impacts	**Mitigation and Avoidance Measures**
environment. **(Less than Significant Impact with Mitigation Incorporated)**	Environmental Health's (SCCDEH) Voluntary Cleanup Program (VCP), or equivalent, to formalize regulatory oversight of the mitigation of contaminated soil to ensure the site is safe for construction workers and the public after development. The project applicant responsible for the contaminated area of the site shall remove contaminated soil to levels acceptable to the SCCDEH (or equivalent oversight agency) for residential exposure prior to issuance of any grading permits. **MM HAZ-2.2:** A Removal Action Plan, Soil Mitigation Plan or other similarly titled report describing the remediation shall be prepared and implemented to document the removal and /or capping of contaminated soil. Prior to issuance of any grading permits, a copy of any reports prepared shall be submitted to the Development Services Director or Director's designee. All work and reports produced shall be performed under the regulatory oversight and approval of the SCCDEH (or equivalent oversight agency). **MM HAZ-2.3:** The project applicant shall prepare a Site Management Plan (SMP) prior to issuance of any grading permits to reduce or eliminate exposure risk to human health and the environment, specifically, potential risks associated with the presence of organochlorine pesticides and pesticide-based metals. The SMP shall include, but is not limited to, the following elements to mitigate potential risks associated with environmental conditions: • Procedures for transporting and disposing the waste material generated during removal activities, if such transport and disposal is necessary; • Procedures for stockpiling soil on-site if such stockpiling is necessary; • Provisions for collecting soil samples to prior to grading activities; • Provisions for confirmation soil sampling as appropriate to obtain a "No Further Action" letter (or equivalent) from the state and/or local agency assuming oversight for the site;

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
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	• Procedures to ensure that fill and cap materials are verified as clean truck routes; • Staging and loading procedures and record keeping requirements. The SMP shall reference the Storm Water Pollution Prevention Plan (SWPPP) required for the project in accordance with the Construction General Permit Order issued by the California State Water Resources Control Board. The SMP shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH), or equivalent regulatory agency, for review and approval. Copies of the approved SMP shall be provided to the City's Development Services Department prior to issuance of any grading permits. **MM HAZ-2.4:** All contractors and subcontractors at the project site shall develop a health and safety plan (HSP) specific to their scope of work and based upon the known environmental conditions for the site. Each Health and Safety plan shall be implemented under the direction of a Site Safety and Health Officer. The Health and Safety Plan shall include, but not limited to, the following elements, as applicable: • Provisions for personal protection and monitoring exposure to construction workers; • Procedures to be undertaken in the event that contamination is identified above action levels or previously unknown contamination is discovered; • Procedures for the safe storage, stockpiling, and disposal of contaminated soils; • Provisions for the on-site management and/or treatment of contaminated groundwater during extraction or dewatering activities; • Emergency procedures and responsible personnel. The HSP shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH), or equivalent regulatory agency, for

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
Significant Impacts	**Mitigation and Avoidance Measures**
	review and approval. Copies of the approved HSP shall be provided to the City's Development Services Department prior to issuance of any grading permits. **MM HAZ-2.5:** Prior to issuance of any grading permits, the project applicant shall excavate lead-impacted soils identified at sample locations SS-R-16A, SS-R-16D, and SS-R-17B (near the single-family residence and barn structure) to a depth of at least 2.5 below the ground. The soil shall be properly disposed of in accordance with state and SCCDEH and California Code of Regulations, Title 8 waste disposal requirements. The SCCDEH (or equivalent oversight agency) may also approve leaving in-place some of the contaminated soil if the contaminated soil will be buried under hardscape and/or several feet of clean soil and not at risk of being encountered by future site users or nearby residents. **MM HAZ-2.6:** 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 Department 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 CCR 1529 and Title 8 CCR 1532.1 regarding asbestos and lead training, engineering controls,

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
Significant Impacts	**Mitigation and Avoidance Measures**
	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. The following measures shall be included in the work plan: • During demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Title 8, California Code of Regulations (CCR), Section 1532.1, including employee training, employee air monitoring, and dust control. Any debris or soil containing lead-based paint or coatings shall be disposed of at landfills that meet acceptance criteria for the type of lead being disposed. • All potentially friable asbestos containing materials (ACMs) shall be removed in accordance with National Emission Standards for Air Pollution (NESHAP) guidelines prior to demolition or renovation activities that may disturb ACMs. All demolition activities shall be undertaken in accordance with Cal/OSHA standards contained in Title 8, CCR, Section 1529, to protect workers from asbestos exposure. • A registered asbestos abatement contractor shall be retained to remove and dispose of ACMs identified in the asbestos survey performed for the site in accordance with the standards stated above. • Materials containing more than one-percent asbestos are also subject to Bay Area Air Quality Management District (BAAQMD) regulations. Removal of materials containing more than one-percent asbestos shall be completed in accordance with BAAQMD requirements and notifications.

Table 1.2-1: Summary of Significant Impacts and Mitigation Measures	
Significant Impacts	**Mitigation and Avoidance Measures**
	• Based on Cal/OSHA rules and regulations, the following conditions are required to limit impacts to construction workers. • Prior to commencement of demolition activities, a building survey, including sampling and testing, shall be completed to identify and quantify building materials containing lead-based paint. • During demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Construction Standard, Title 8, CCR, Section 1532.1, including employee training, employee air monitoring and dust control. • Any debris or soil containing lead-based paint or coatings shall be disposed of at landfills that meet acceptance criteria for the type of waste being disposed. **MM HAZ-2.7:** 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 the wells are identified, or subsequently encountered during earthwork activities, 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.
Impact TRN-2: The project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **(Significant and Unavoidable Impact with Mitigation Incorporated)**	**MM TRN-2.1:** During project operations, the management entity/HOA shall provide fully (100 percent) subsidized annual VTA transit passes for all project homeowners (a maximum of one transit subsidy per residential unit, which would result in up to 269 transit passes per year). This subsidized transit program shall be approved by the City of Morgan Hill's Public Services Director or Director's designee prior to issuance of occupancy.

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 8.6, Project Alternatives:

- No Project Alternative as required by CEQA (Section 15126.6[e]),
- No Project – Existing General Plan/ Zoning Development Alternative
- Reduced Footprint Alternative: Agricultural Preservation

The CEQA Guidelines state that an EIR shall identify an environmentally superior alternative. In addition to the No Project Alternative, the environmentally superior alternative to the proposed project is the Reduced Footprint: Agricultural Preservation Alternative, as further detailed in Section 8.6, 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 Crosswinds Half Road and Mission View Drive Residential Project 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 (under Options 1 and 2 described in Section 3.2) that could reduce or avoid adverse environmental impacts (CEQA Guidelines 15121(a)). As the CEQA Lead Agency for this project, the City of Morgan Hill 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 January 29, 2021. The standard 45-day comment period concluded on March 17, 2021. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from implementation of the project. Appendix A of this EIR includes the NOP and comments received on the NOP. See Table 2.2-1 below for summaries of NOP comments.

Table 2.2-1: Summaries of Comments Received on NOP

Commenter	Summary of Comment
Bay Area Air Quality Management District (BAAQMD)	• Air quality: o Draft Environmental Impact Report (DEIR) should estimate and evaluate the potential health risk to existing and future sensitive populations within and near the Project area from toxic air contaminants (TACs) and fine particulate matter (PM2.5) as a result of the Project's construction and operations. o DEIR should evaluate all feasible mitigation measures, onsite and offsite. o DEIR should evaluate Project's consistency with the Air District's 2017 Clean Air Plan. o DEIR should evaluate Project's consistency with the City of Morgan Hill Climate Action Plan.

Table 2.2-1: Summaries of Comments Received on NOP	
Commenter	**Summary of Comment**
	• Greenhouse gases: o The GHG impact analysis should include an evaluation of the Project's consistency with the most recent draft of the AB 32 Scoping Plan. o DEIR should evaluate all feasible mitigation measures, onsite and offsite.
County of Santa Clara Parks and Recreation Department	• Recreation: o If the Project is determined to have any direct or indirect impacts to the Madrone Channel Trail or other recreational units, those impacts must be analyzed in the EIR.
County of Santa Clara Roads and Airports Department	• Transportation: o The traffic analysis for the project should evaluate the same intersections that were evaluated in the Morgan Hill Technology Center project. o All-way stop sign installation at Half Road and Mission View Drive is underway by the County. o Ensure project site alleyway has no public vehicle access to Half Road and is only for emergency use.
Mariani Family Properties (1615 Half Road)	• Land Use: o Discuss project site plan consistency with the adjacent General Plan land uses. • Population/Housing: o Discuss how the proposed housing helps satisfy the Association of Bay Area Governments (ABAG)-adopted Regional Housing Needs Allocation (RHNA) housing allocation for Morgan Hill. • Greenhouse Gases: o The proposed project and neighboring properties are within short commuting distance of Morgan Hill job centers. Discuss the implication of such locational circumstances to state and regional law and policy concerning the need to reduce greenhouse gas emissions by shortening/lessening car commutes. • Transportation and Utilities: o EIR should include discussion of planned bicycle, pedestrian, and public transit/bus service. In particular, discuss impact of the connections provided by the bus line on Mission View Drive and Half Road to citywide job and education centers.
Native American Heritage Commission (NAHC)	• Tribal Cultural Resources: o NAHC recommends consultation with California Native American tribes that are traditionally and culturally

Table 2.2-1: Summaries of Comments Received on NOP	
Commenter	**Summary of Comment**
	affiliated with the geographic area of the proposed project.
Santa Clara Valley Transportation Authority (VTA)	• Transportation: o VTA's Congestion Management Program (CMP) requires a Transportation Impact Analysis (TIA) for any project expected to generate 100 or more net new peak-hour trips. o TIA's analysis of pedestrian and bicycle modes should consider the completeness of the pedestrian and bicycle network on roadways and intersections adjacent to and nearby the project site. o VTA recommends installing a new southbound bus stop after the main entrance on Mission View Drive. o VTA recommends the project install street lighting at the bus stop, place trees and landscaping outside the bus stop area, and install a new passenger pad.

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. Written comments concerning the environmental review contained in this Draft EIR during the 60-day public review period should be sent to:

Gina Paolini, Principal Planner
City of Morgan Hill
17575 Peak Avenue
Morgan Hill, California 95037
Email: gina.paolini@morganhill.ca.gov

2.3 FINAL EIR/RESPONSES TO COMMENTS

Following the conclusion of the 60-day public review period, the City of Morgan Hill 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 of Morgan Hill 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 SETTING AND LOCATION

The approximately 33-acre project site is located at the intersection of Half Road and Mission View Drive in the City of Morgan Hill. The site is bounded by Half Road to the south, and Mission View Drive to the east. The project is located on four parcels. The Assessor's Parcel Numbers (APNs) are 728-30-001, 728-30-002, 728-30-003, and 728-30-004. The project site is mostly undeveloped and consists of grassland, fallowed agricultural fields, and boxed trees. A vacant single-family residence constructed in the 1950s is located on the southwestern section of the site. Regional, vicinity, and aerial maps of the project site are shown on Figure 3.2-1, Figure 3.2-2, and Figure 3.2-3, respectively.

The adjacent parcels (APNs 728-30-006, 728-30-008, and 728-30-009) to the west are undeveloped, consisting of mostly grasses and boxed trees. South of the project site, across Half Road, is a vacant field with grasses and buildings used for industrial purposes. East of the project site, across Mission View Drive, is a field with orchards and associated structures, and single-family residences. North of the project site, is an adjacent vacant parcel of land, followed by a health center and associated parking.

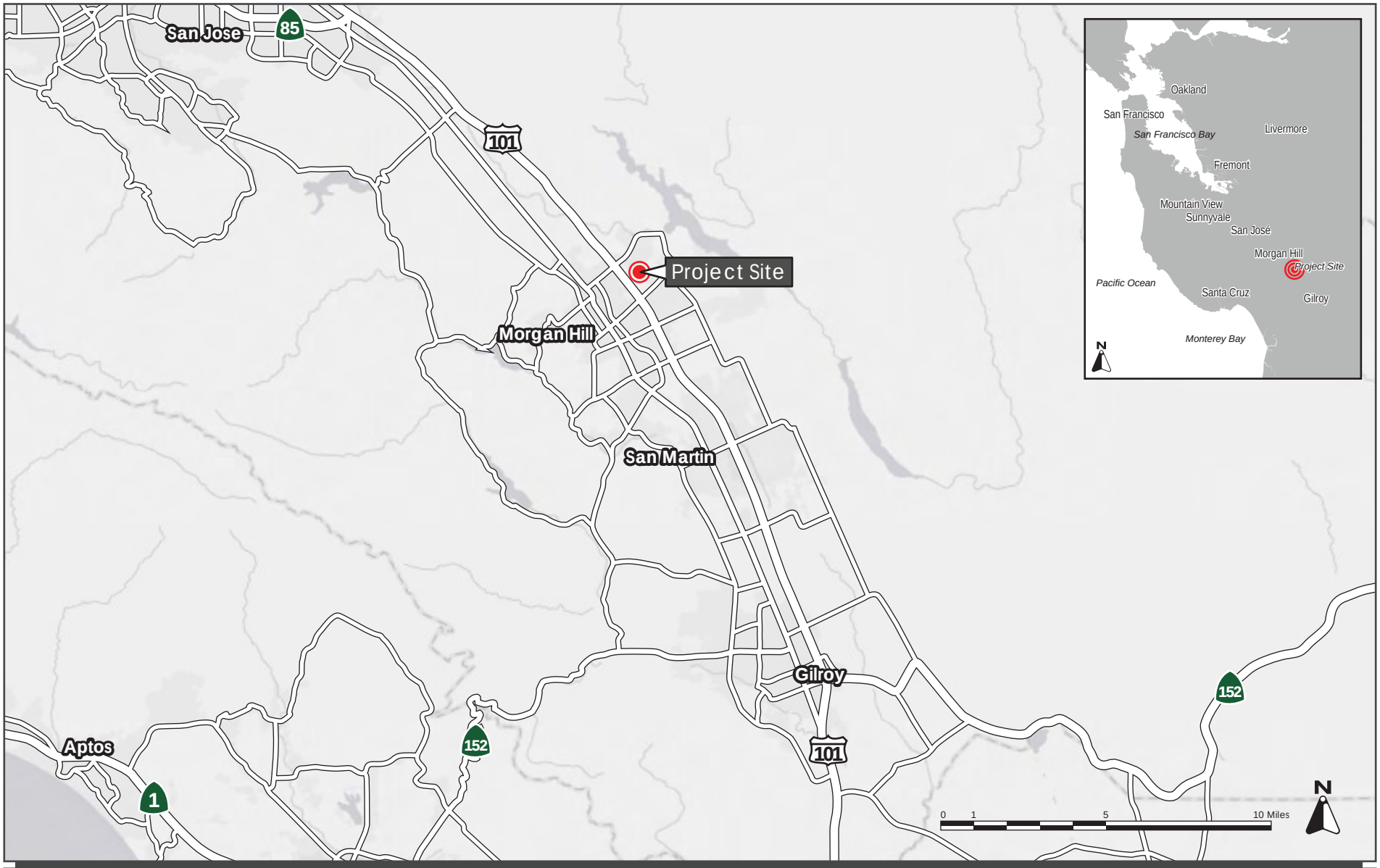
The project (Options 1 and 2 discussed in Section 3.2) also proposes an off-site sanitary sewer line extension from Half Road to East Main Avenue (see Section 3.2 for a description). The area where the off-site sewer line is proposed is surrounded by agricultural lands and residences.

3.2 PROJECT DESCRIPTION

This EIR evaluates two project options related to the management of stormwater. Under Option 1, stormwater runoff would be directed to underground retention facilities designed for a 25-year, 24-hour storm event and under Option 2, 100 percent of stormwater from the site would be directed to underground retention facilities designed for a 100-year, 24-hour storm event (as described in further detail in Section 3.2.4, Stormwater Drainage Improvements). The two project options would have the same site design described below including the proposed number of residences, building elevations, and site layout.

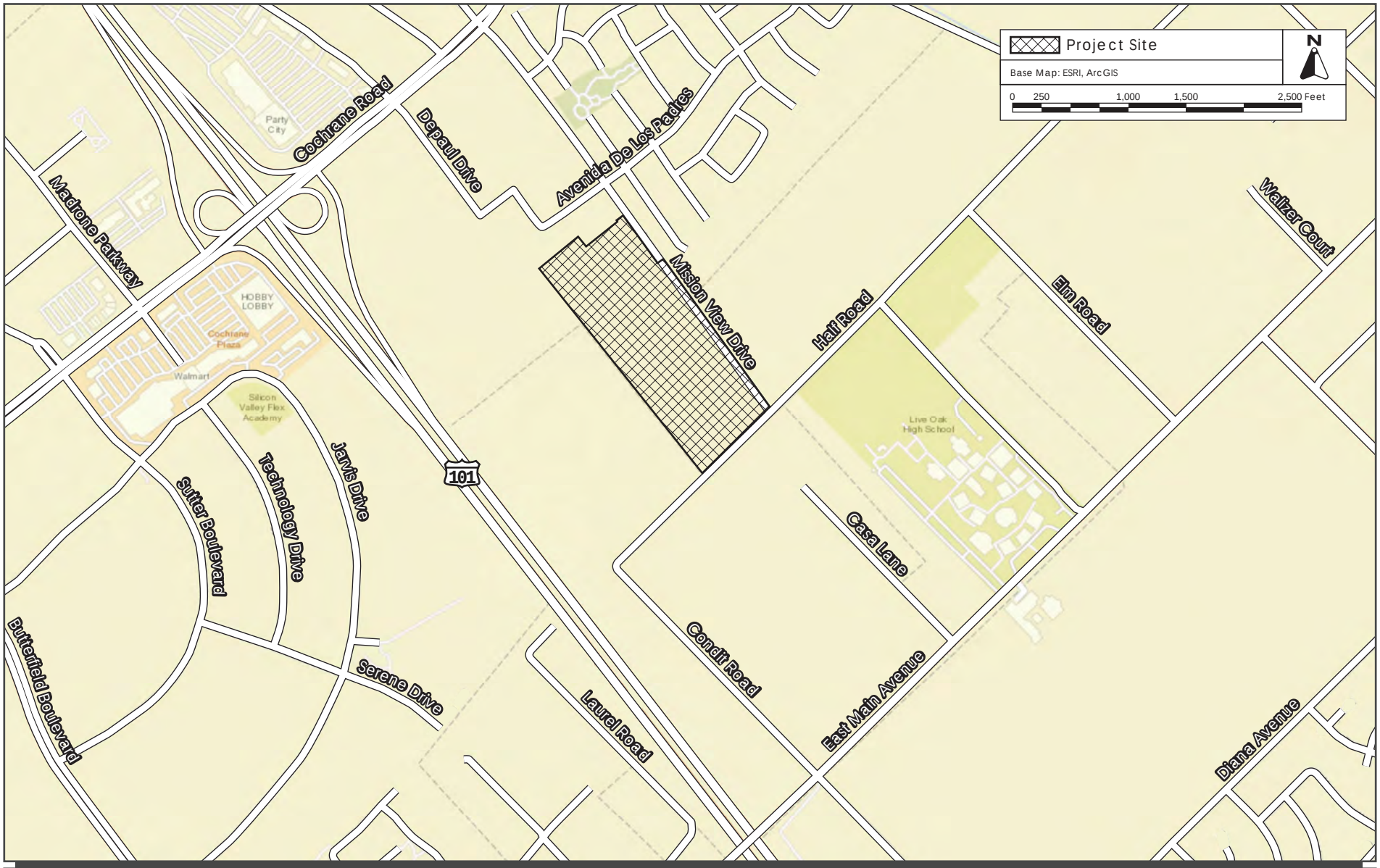
The project (under Options 1 and 2) proposes a Vesting Tentative Map and Design Review Permit to construct a total of 269 residential units, comprised of 56 single-family detached, 64 duets, and 149 condominium units. There would be a total of 40 below-market-rate (BMR) units. Each unit would include a two-car garage on the ground floor. The single-family detached residences would be constructed on the eastern and southern perimeters of the project site, along Mission View Drive and Half Road. The single-family residences would be two-stories and reach a maximum height of 30 feet.

The two-story attached duets would be located in the center of the project site and would reach a maximum height of 30 feet. Three-story condominiums would be constructed along the western



REGIONAL MAP

FIGURE 3.2-1



VICINITY MAP | FIGURE 3.2-2

AERIAL PHOTOGRAPH AND SURROUNDING LAND USES | FIGURE 3.2-3

and northwestern perimeters of the project site, along DePaul Drive and adjacent to a vacant parcel. The condominiums would reach a maximum height of 39 feet.

The residences would be set back from the edge of the sidewalk by at least 30 feet from the proposed DePaul Drive, which would be extended from the north along the project and adjacent property frontage to the south terminating in a cul-de-sac north of Half Road; refer to Section 3.2.2 Site Access and Parking for a more detailed description of the proposed extension), 15 feet from the sidewalk on Half Road, 15 feet from the sidewalk along Mission View Drive, and 10 feet from the northern property line. A site plan of the proposed project is shown on Figure 3.2-4.

As referenced in Section 3.1, a 2,745-foot off-site sanitary sewer line would also be constructed from Half Road to Condit Road and connect to an existing sewer line on East Main Avenue as a part of the project. The width of the sewer line trench would be approximately two feet; the trench/area of disturbance for the off-site sanitary sewer line would be 0.1 acres (or 5,260 square feet). The off-site sewer line would serve the project site, adjacent development, and planned development in the area (refer to Figure 3.2-4, Figure 3.2-5, and Figure 3.2-6).

Building elevations for the single-family detached units are shown on Figure 3.2-7, elevations of the attached duets are shown on Figure 3.2-8, and elevations of the condominiums are shown on Figure 3.2-9.

3.2.1 Landscaping and Outdoor Areas

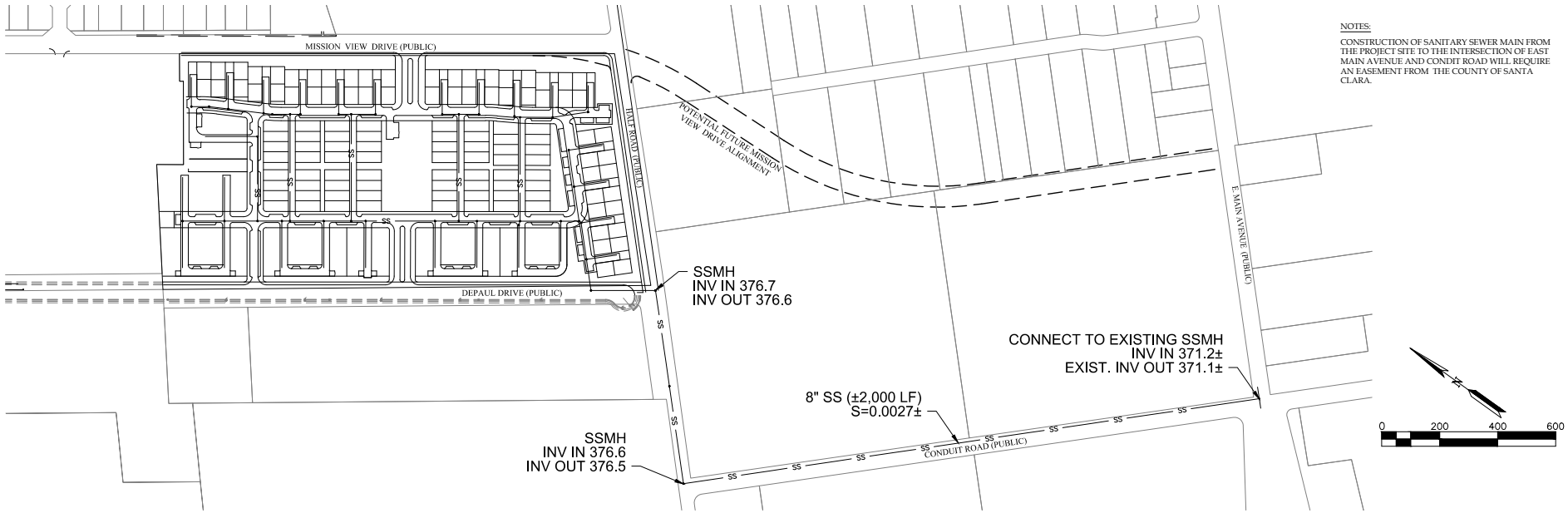
Project Options 1 and 2 would include private recreational areas including a clubhouse, pool, children's play area, basketball court, fitness court, and barbeque/picnic areas. The project would also include pedestrian paths, and landscaping, including trees and lawn areas. The proposed project would remove all existing trees on-site and would plant new trees throughout the site.

3.2.2 Site Access and Parking

Project Options 1 and 2 would provide 606 parking spaces including 538 covered spaces and 68 uncovered parking spaces. The 538 covered (garages and carports) parking spaces would be designated for the residences and on-street parking and uncovered parking stalls would be available to guests.

The project site would be accessed via three vehicular connections: two project entries from DePaul Drive and one entry from Mission View Drive. DePaul Drive is proposed to be extended by approximately 2,280 feet south along the project site's western frontage to provide direct access to the project site via full access driveways. DePaul Drive would terminate at a cul-de-sac just north of Half Road. The project would extend DePaul Drive from the northern and southern edges of the development. The western portion of DePaul Drive would extend onto the adjacent property

ILLUSTRATIVE SITE PLAN | FIGURE 3.2-4



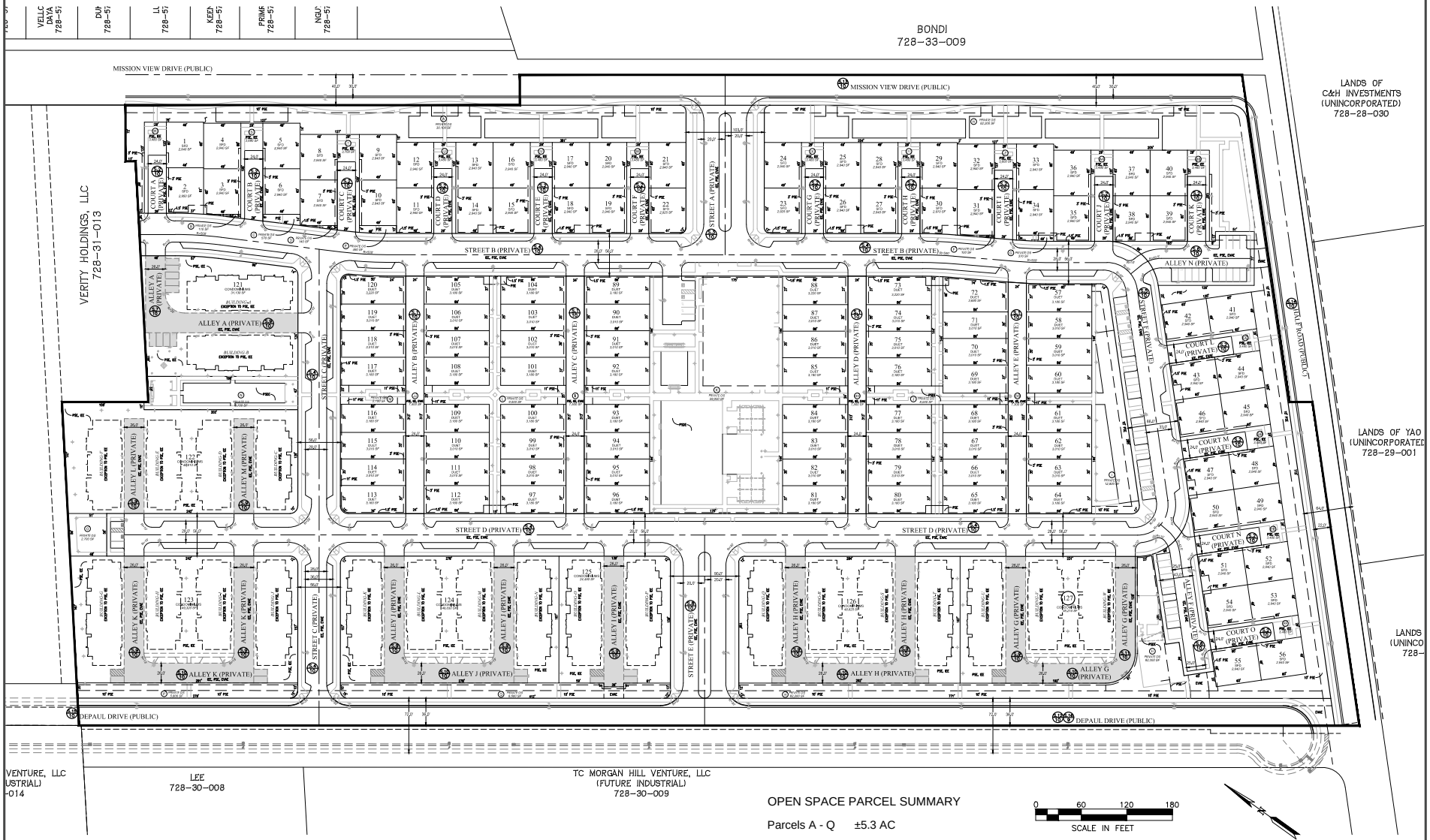
NOTES:

CONSTRUCTION OF SANITARY SEWER MAIN FROM THE PROJECT SITE TO THE INTERSECTION OF EAST MAIN AVENUE AND CONDIT ROAD WILL REQUIRE AN EASEMENT FROM THE COUNTY OF SANTA CLARA.

Source: Ruggeri-Jensen-Azar, June 8, 2020.

OFF-SITE SANITARY SEWER LINES

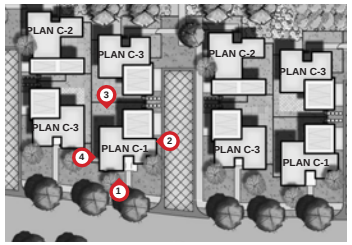
FIGURE 3.2-5



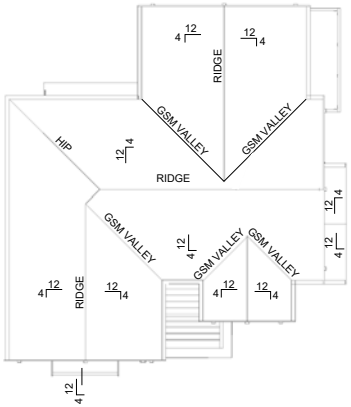
Source: Ruggeri-Jensen-Azar, June 8, 2020.

VESTING TENTATIVE MAP

FIGURE 3.2-6



TYPICAL CLUSTER LAYOUT



ROOF PLAN, ELEVATION STYLE B

PLAN C-1, ELEVATION STYLE B, FRONT ELEVATION

RIGHT ELEVATION

REAR ELEVATION

LEFT ELEVATION

SINGLE-FAMILY DETACHED ELEVATIONS | FIGURE 3.2-7

BUILDING 201, ELEVATION STYLE D, FRONT ELEVATION

RIGHT ELEVATION (PLAN D-1)

REAR ELEVATION (PLAN D-1 AND D-2)

LEFT ELEVATION (PLAN D-2)

DUET ELEVATIONS

FIGURE 3.2-8

BUILDING 601, ELEVATION STYLE F, FRONT ELEVATION

LEFT ELEVATION

REAR ELEVATION

RIGHT ELEVATION

CONDOMINIUM ELEVATIONS | FIGURE 3.2-9

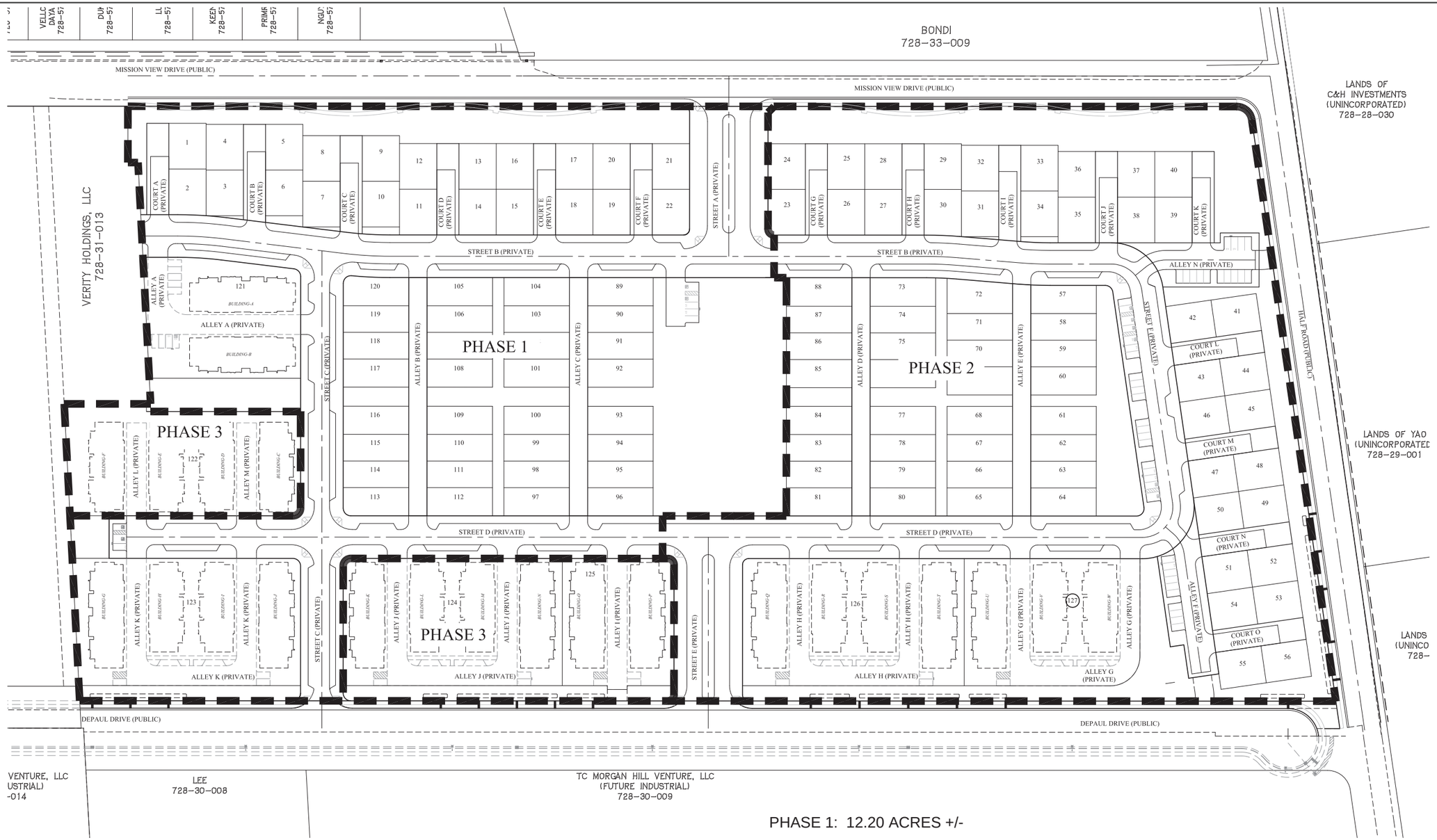
immediately to the west and provide access to a future industrial Redwood Tech site (refer to Figure 3.2-6). The project (under Options 1 and 2) would also include three emergency vehicle access points: one along Half Road and two along DePaul Drive.

3.2.3 Construction and Demolition

There would be 46,000 cubic yards of soil cut and fill during construction for Option 1 and 52,500 cubic yards of soil under Option 2, respectively. There would be no soil exported or imported from the site for either project option, with the exception of minimal excavation and export of soil that would be required for lead-impacted soil Under both options. Demolition and construction of the proposed residential project and DePaul Drive extension would take approximately 41 months.

The proposed project (under Options 1 and 2) would be constructed in four phases. The construction schedule for Options 1 and 2 would be similar, as both would require an overall duration of approximately 41 months. The implementation of Option 2 would require three more construction workdays during the grading/excavation phase compared to Option 1, resulting in a total of 18 workdays for grading and excavation. Option 2 would include an increase in equipment usage for 16 of the 18 workdays for the use of certain heavy equipment such as excavators (which would be seven more days than Option 1), graders (five more days than Option 1), scrapers (two more days than Option 1), and tractors/loaders (two more days than Option 1) during the grading/excavation phase.

Table 3.2-1 and Figure 3.2-10 show which residences would be constructed during each phase and the duration of each construction phase. Construction of the off-site sewer line would occur within the grading phase and would take approximately one month (or 18 construction workdays).



NOTES

1. THIS PLAN ILLUSTRATES PROPOSED PHASING FOR UNITS, OPEN SPACE, AND IN-TRACT ROADWAY IMPROVEMENTS. UTILITY CONNECTIONS FOR PHASE 1 WILL REQUIRE EXTENDING UTILITIES THROUGH A PORTION OF PHASE 2, INCLUDING STREET D AND ALLEY F.

PHASE 1: 12.20 ACRES +/-

PHASE 2: 12.88 ACRES +/-

PHASE 3: 2.85 ACRES +/-

DEPAUL RIGHT-OF-WAY WITHIN THE CROSSWINDS: 59,400 S.F. +/- (1.36 ACRES +/-)

DEPAUL RIGHT-OF-WAY FROM EXISTING STUB TO HALF ROAD (INCLUDING CROSSWINDS): 163,000 S.F. +/- (3.74 ACRES)

PHASING PLAN

FIGURE 3.2-10

Table 3.2-1: Construction Phasing: Project Options 1 and 2			
Construction	Number of Units	Construction Duration[1]	Acreage
Phase 1 (overall site preparation)	N/A	1 month – May 2023 to June 2023 (Demolition and site preparation; grading/excavation of proposed residential area) Grading/Excavation - Option 1: Total of 15 construction workdays Option 2: Total of 18 construction workdays.	33.18
	Off-site Sewer Line Installation	1 month – June 2023 (Options 1 and 2)	Approximately 0.19 acres (the length of the "off-site" sewer improvement is approximately 2,745 linear feet)
Phase 2	40 condominium units (Buildings A and B, G -J) 32 single-family attached units (Building units 89 – 120) 22 single-family detached units (Building units 1-22) Clubhouse/pool area	16 months: June 2023 to October 2024 (Options 1 and 2) (Trenching, foundations, framing, exterior building construction, paving, and interior building construction, construction of swimming pool area)	12.2
Phase 3	34 single-family detached units (Building units 23 through 56) 32 single-family detached units (Building units 57-88)	17 months: October 2024 to March 2026 (Options 1 and 2) (Trenching, foundations, framing, exterior building construction, paving, and interior building construction)	12.9

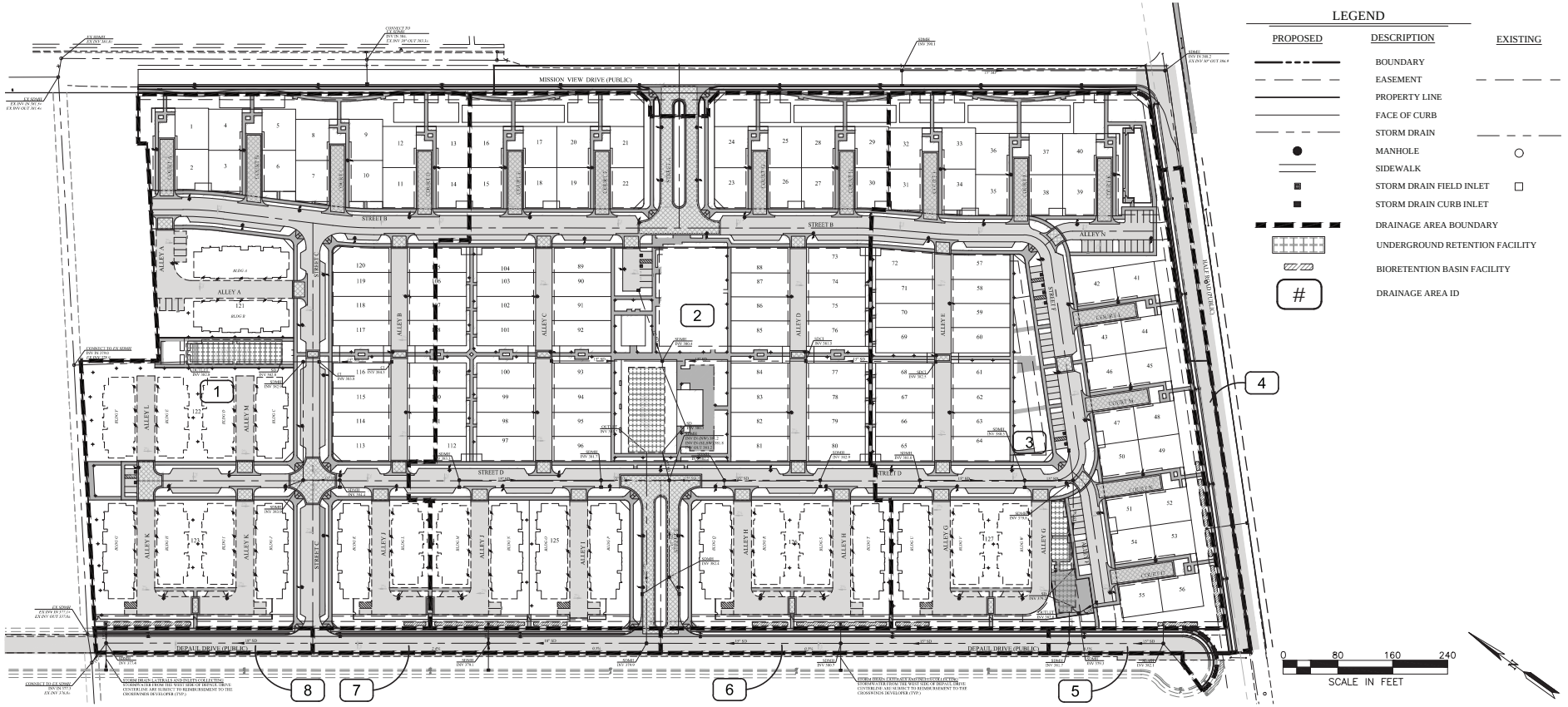
Table 3.2-1: Construction Phasing: Project Options 1 and 2			
Construction	Number of Units	Construction Duration[1]	Acreage
	45 condominium units (Buildings Q through W)		
	DePaul Drive Extension	3 months: October 2024 to January 2025 (Options 1 and 2) October 2024 to November 2024 (Grading /excavation, trenching, and paving)	3.74
Phase 4	64 condominium units Buildings C through F and K through P	14 months: April 2026 to June 2027 (Options 1 and 2) (Trenching, foundations, framing, exterior building construction, paving, and interior building construction)	2.9

3.2.4 Storm Drainage Improvements

Storm drain lines would be included on the site's internal streets and would connect to new 15-inch to 18-inch storm drain lines on DePaul Drive and an existing storm drain line on Mission View Drive.

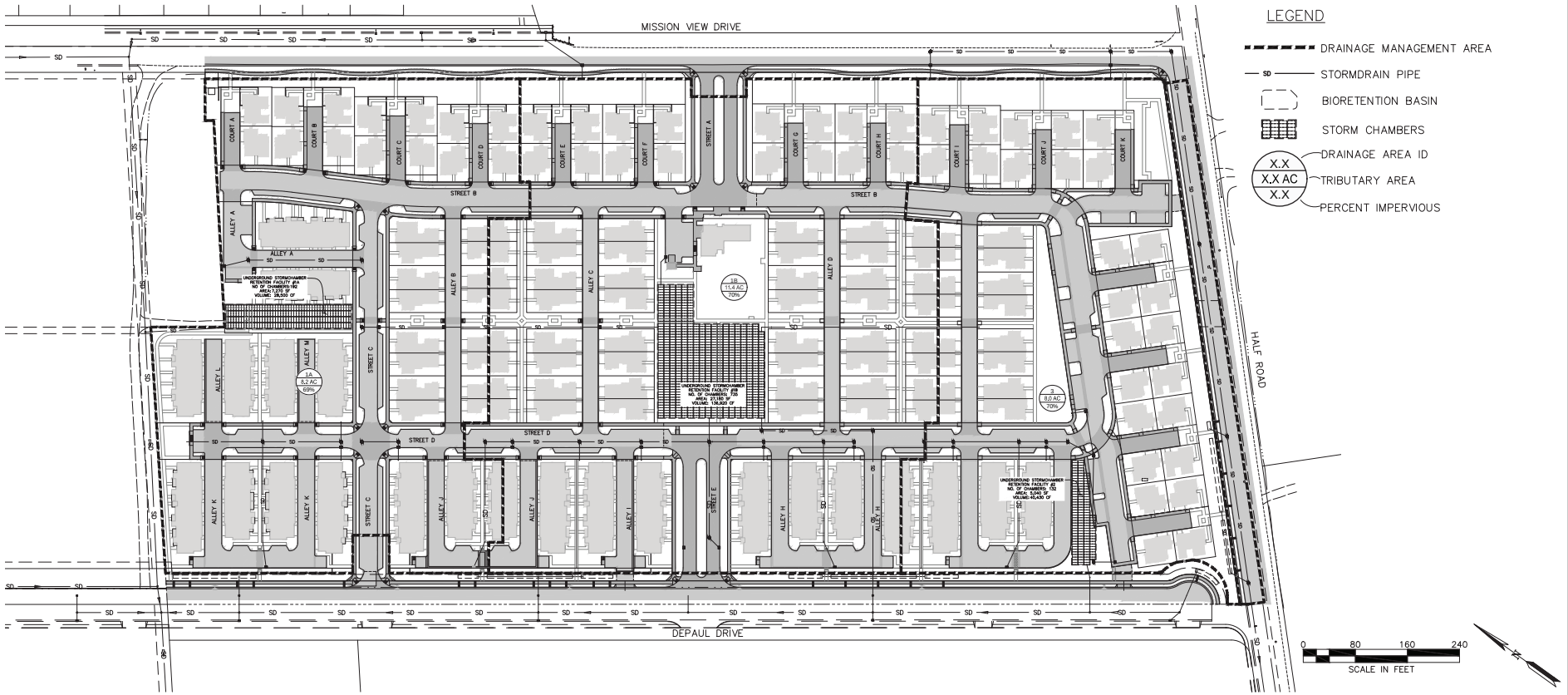
Under Option 1, stormwater runoff would be directed to retention basins designed for a 25-year, 24-hour storm event. This option would include five underground bioretention facilities with a maximum depth of four feet below the ground surface and a total combined surface area of 4,670 square feet. The basins would be located along the southern perimeter of the project site (north of Half Road) and in the southeast corner of the project site. Excess runoff from the site would drain to the Santa Clara Valley Water District's (Valley Water's) Madrone Channel. The proposed residential development would convey stormwater to the Madrone Channel via public storm drains and lines in Half Road. Option 1 is shown on Figure 3.2-11.

Under Option 2, 100 percent of stormwater runoff from the site would be directed to retention basins designed for a 100-year, 24-hour storm event. The project would include three retention facilities (with a maximum depth of nine feet below the ground surface) located on the western portion of the site (retention facility 1A), center of the site (retention facility 1B), and southeast corner of the site (retention facility 2), as shown on Figure 3.2-12. Retention facility 1A would have a surface area of 7,270 square feet and a maximum volume of 27,500 cubic feet of water, retention facility 1B would have a surface area of 27,180 square feet and a maximum volume of 136,920 cubic feet, and retention facility 2 would have a surface area of 5,040 square feet and a maximum volume of 40,430 cubic feet. Under this option, no water would be conveyed to the Madrone Channel.



Source: Ruggeri-Jensen-Azar, June 8, 2020.

OPTION 1 STORMWATER PLAN – STORMWATER DETENTION | FIGURE 3.2-11



Source: Ruggeri-Jensen-Azar, June 8, 2020.

OPTION 2 STORMWATER PLAN – STORMWATER RETENTION | FIGURE 3.2-12

3.2.5 Utilities

The proposed project would connect to existing water lines in the surrounding roadways. New domestic water lines and fire service water lines would connect to existing 10-inch water mains on Half Road and to a new eight-inch water main on DePaul Drive.

The proposed project (under Options 1 and 2) would construct new sanitary sewer lines within the internal streets that would connect to a new eight-inch sewer line in the DePaul Drive extension. The eight-inch sanitary sewer line would connect to a proposed a 2,745-foot off-site sanitary sewer line that would extend from Half Road to Condit Road, to the existing sanitary sewer line in East Main Avenue. The depth of the proposed off-site sewer line trench would range from 10 and 13 feet and the width would be approximately two feet. The extension of the sanitary sewer line on to Half Road, Condit Road, and East Main Avenue would be within an existing right of way among existing underground utilities.

Electricity at the project site would be provided by Silicon Valley Clean Energy (SVCE). Solid waste services would be provided by Recology South Valley.

3.2.6 Green Building Measures

The project would include the following green building measures, in compliance with the California Green Building Standards Code:

- Solar-ready area for PV solar panels on the roof
- Low volatile organic compound (VOC) emission interior wall and ceiling paints
- Insulation with 30 percent post-consumer recycled content for walls and floors
- Energy Star General Electric (GE) appliances.
- High efficiency heating, ventilation, and air conditioning (HVAC) units.
- Drought-tolerant landscaping and low flow irrigation system.
- Bicycle storage for residents.
- Electric vehicle (EV) charging stations.

3.2.7 General Plan and Zoning

The 33-acre site, where the proposed 269 residences and De Paul Drive extension are planned, has a General Plan Land Use Designation of Residential Attached Low (six to 16 dwelling units per acre) and a Zoning district of Residential Attached Low Density. The proposed project would maintain consistency with the existing General Plan and Zoning Designations.

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 and below-market rate housing, as envisioned in the City of Morgan Hill General Plan.
- Create a visually appealing pedestrian corridor along the Mission View Drive and Half Road frontages.
- Implement improvements to provide private vehicular and pedestrian circulation.
- Increase passive and active open space throughout the project site.

3.4 USES OF THE EIR

This EIR would provide decision-makers in the City of Morgan Hill, other public agencies, and the general public with relevant environmental information to use in considering the project. If the proposed project is approved, the EIR could be used by the City in conjunction with appropriate discretionary approvals including, but not limited to, the following:

- Vesting Tentative Map
- Design Permit
- Issuance of Demolition, Grading, Building, and Occupancy Permits
- Tree Removal 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 the list of projects approach.

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 3.4-1 below identifies the approved (but not yet constructed or occupied) and pending projects within one mile of the project site that are evaluated in the cumulative analysis. Other pending projects in the City are located at least two miles away from the project site.

Table 3.4-1: Cumulative Projects List

Name and Location	Description	Distance to Proposed Project
Redwood Tech at 101, west of DePaul Road, south of Cochrane Road, east of U.S. 101, and north of Half Road	Construction of five industrial buildings totaling approximately 500,000 square feet	Less than 50 feet west of the site
Borello Subdivision Peet Road	Construction of 244 residential units. The project is processing the final phase of the development which includes 114 lots.	0.5 mile north of the site
Santa Clara Valley Water District 18300 Peet Road	21,625 square foot industrial warehouse (under construction)	0.5 mile north of the site
Condit-Cardinale Automotive, 17085 Condit Road	Construction a 36,665 square foot commercial car dealership (pending)	0.8 mile southwest of the site
Condit Road, 650 feet south of Diana Avenue	Construction of a 32,795 square foot commercial car dealership (approved)	0.9 mile south of the site

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 3.4-2 below provides a summary of the different geographic areas used to evaluate cumulative impacts.

Table 3.4-2: Geographic Considerations in Cumulative Analysis

Resource Area	Geographic Area
Aesthetics	Project site and adjacent parcels
Agriculture and Forestry Resources	Countywide
Air Quality	San Francisco Bay Area Air Basin Sensitive Receptors within 1,000 feet for construction toxic air contaminants
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	Global
Hazards and Hazardous Materials	Project site and adjacent parcels
Hydrology and Water Quality	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.

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.[2] The following policies are applicable to the proposed project:

Policy CNF-8.1: **High Quality Design.** Require all development to feature high quality design that enhances the visual character of Morgan Hill.

Policy 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.

[2] City of Morgan Hill. *City of Morgan Hill 2035 General Plan.* Adopted July 27, 2016. October 19, 2020. https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId.

Policy 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.

Policy CNF-8.7: **Design Sensitivity.** Ensure that new development is sensitive to the character of adjacent structures and the immediate neighborhood.

Policy 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.

4.1.1.2 *Existing Conditions*

Project Site

The 33-acre site is located along the east side of the U.S. 101 in central Morgan Hill. The project site is flat and mostly covered with non-native grasses, boxed trees on the western portion, and several trees located along the north and northwestern perimeter of the site. There is a vacant one-story single-family residence located in the center of the project site. The former residence is a ranch style house primarily made of concrete, manufactured board siding, and metal siding, and has a gable-styled roof. The front façade has windows above a concrete block wall, a slightly recessed covered porch an entry door. An ancillary utility barn structure is located to the rear of the single-family house. The ancillary structure is wood-framed and made with vertical boarding. The structure has a pitched roof and concrete foundation. Since the vacant residence and ancillary structure are set back from Half Road and Mission View Drive and their views are blocked by trees, these structures are not visible from a public vantage point. Views of the project site are shown in Photos 1 through 4.

Surrounding Visual Character

The 33-acre site is surrounded by developed and undeveloped parcels of land. The parcels to the north and west are undeveloped, flat, and covered with grasses. The parcel to the north contains a small fence which surrounds the utilities on the property. Immediately to the west of the site is a graveled road (future DePaul Drive). South of the site is a paved two-way roadway (Half Road), an open grassland area and a one-story wood-framed structure with a hipped roof. To the east of the site is a paved road (Mission View Drive) and an orchard with three one-story structures with gable-styled roofs facing Half Road. Modern two-story residences made of stucco and hipped roofs are also east of Mission View Drive. Views of the surrounding area are shown in Photos 5 through 8.

Scenic Vistas and Resources

Due to the flat topography, existing development, and orchard trees in the project area, views of the northwestern portion of the project site are limited to the immediate vicinity. The southeastern

Photo 1: View of the project site facing southwest from Mission View Drive.

Photo 2: View of the project site and boxed nursery trees from Mission View Drive.

PHOTOS 1 & 2

Photo 3: View of the site to the west and adjacent orchard to the east from Mission View Drive.

Photo 4: View of the existing vacant residence on the project site.

PHOTOS 3 & 4

Photo 5: View of the project site facing west from De Paul Drive.

Photo 6: View of the project site facing east from De Paul Drive.

PHOTOS 5 & 6

Photo 7: View of the surrounding residential uses across Half Road.

Photo 8: View of the agricultural field across Half Road.

PHOTOS 7 & 8

portion of the project site is surrounded by low-lying development or agricultural fields and has views of the western and eastern foothills. 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).[3]

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?[4] 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?

The aesthetic impacts would be the same for Project Options 1 and 2 because the proposed differences in storm drainage management, size and depth of the underground retention facilities, and construction equipment usage would not be apparent once the underground facilities are constructed and construction equipment is removed from the site. Because the differing stormwater facilities would be underground and not visible, the fully implemented condition for each option would be indistinguishable visually, and therefore, Options 1 and 2 are discussed together below.

4.1.2.1 *Project Impacts*

Impact AES-1:	The project would not have a substantial adverse effect on a scenic vista. **(Less than Significant Impact)**

There are no scenic corridors, highways, or vistas in Morgan Hill that are designated by the state or the City. However, there are a few 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, along Monterey Road, and along Cochrane Avenue, Main Avenue, Dunne Avenue, and Tennant Avenue. 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.

[3] Caltrans. *California State Scenic Highway System Map.* Accessed April 16, 2021. https://www.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983.
[4] Public views are those that are experienced from publicly accessible vantage points.

Views of hillsides are partially visible to the west from the residences east of the project site across Mission View Drive. Given the distance of the residences from the hillsides and trees/landscaping that block views, the views of the hillsides are partially visible. These views would be partially obstructed by the new residential development. However, mountains would be intermittently visible between buildings. Additionally, private views are not protected under CEQA, which focuses on scenic vistas as seen from public vantage points. Thus, the proposed project (under Options 1 and 2) would not have a substantial adverse effect on a scenic vista. **(Less than Significant Impact)**

Impact AES-2:	The project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. **(No Impact)**

The 33-acre site and 0.1-acre off-site sewer installation area are 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 (under Options 1 and 2) would not damage scenic resources within a state scenic highway. **(No Impact)**

Impact AES-3:	The project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The project would not conflict with applicable zoning and other regulations governing scenic quality. **(Less than Significant Impact)**

The proposed residential units would be made of stucco, cement, brick, stone, panel and lap siding, and vinyl windows along the facades. The roofs would be asphalt shingled and gable-style. The 56 single-family detached and 64 duet units would be two-stories and the condominiums would be three stories. The proposed residences would be made of materials similar to the existing single-family houses across Mission View Drive. 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. For these reasons, the proposed project (under Options 1 and 2) 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)**

Impact AES-4:	The project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. **(Less than Significant Impact)**

The proposed project would incrementally increase light and glare in the project area, due to the new reflective surfaces and outdoor lighting on the site and vehicles traveling on and 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 (under Options 1 and 2) 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*

Impact AES-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant aesthetics impact. **(Less than Significant Cumulative Impact)**

The proposed project (under Options 1 and 2) is surrounded by adjacent development and vacant parcels of land. Views of the proposed residences from the adjacent buildings are limited to the immediate area. Therefore, the geographic area for cumulative aesthetic impacts is defined as the immediate project vicinity of locations from which the project would be visible. The approved Redwood Tech at 101 Project would be immediately adjacent (west of DePaul Drive) to the project site. As discussed in Section 4.1.2.1 Project Impacts above, the proposed project (under Options 1 and 2) would have no impact on scenic resources within a state scenic highway; therefore, the project would not contribute to a cumulative impact on these resources. The proposed project and Redwood Tech project (combined projects) would partially block views of hillsides from residences to the east, however, views are partially obstructed by existing trees and landscaping. Building elevations for the Redwood Tech project would not exceed 43 feet. Since the industrial buildings would not be significantly taller that the proposed residences, hillsides would be partially visible from the residences to the east. Therefore, the combined projects would not result in a significant cumulative impact on scenic vistas. Both projects would be consistent with the City's design and lighting standards and, therefore, the combined projects would not result in a significant cumulative impact to the visual character of the area or residences in the area due to light and glare. **(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.[5]

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.[6]

Fire and Resource Assessment Program

The California Department of Forestry and Fire Protection (CAL FIRE) identifies forest land, timberland, and lands zoned for timberland production that can (or do) support forestry resources.[7] Programs such as CAL FIRE's Fire and Resource Assessment Program 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.[8]

[5] California Department of Conservation. "Farmland Mapping and Monitoring Program." Accessed April 15, 2021. http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx.

[6] California Department of Conservation. "Williamson Act." http://www.conservation.ca.gov/dlrp/lca. Accessed April 15, 2021.

[7] 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)).

[8] California Department of Forestry and Fire Protection. "Fire and Resource Assessment Program." Accessed April 15, 2021. 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 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 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, 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 33-acre site is comprised of four parcels in a primarily suburban setting. The site is largely undeveloped, with the exception of one vacant single-family residence, and is predominantly covered by grassland with trees around the perimeters of the site.

While the project site is largely undeveloped, it has been historically used for agricultural activities. The project site is currently not used for agricultural purposes and is not the subject of a Williamson Act contract.[9] No forestry resources are present on or near the site.

According to the Santa Clara County Important Farmland 2016 Map, the project site consists of *Prime Farmland* and *Grazing Land*. The project site consists of approximately 16 acres of Prime Farmland and 17 acres of Grazing Land (refer to Figure 4.2-1). Prime Farmland is defined as having the best combination of physical and chemical features able to sustain long-term agricultural production. Grazing Land is defined as land on which the existing vegetation is suited to livestock grazing.

[9] City of Morgan Hill. *Morgan Hill 2035 DEIR*. *Figure 4.2-2: Williamson Act Contracts*. January 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?

The agricultural and forestry resources impacts would be the same for Project Options 1 and 2, which only differ in the way in which stormwater is managed on-site. The proposed differences in storm drainage management, size and depth of the underground retention facilities, and construction equipment usage, when comparing Project Options 1 and 2, would not result in differing agricultural and forestry resources impacts, therefore, the two options are discussed together below.

4.2.2.1 *Project Impacts*

Impact AG-1:	The project would 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. **(Significant and Unavoidable Impact)**

The City of Morgan Hill adopted its Agricultural Lands Preservation Program (Preservation Program) in November 2014 to preserve potential agricultural land subject to development.[10] As discussed, the western portion of the project site is designated as *Prime Farmland* (which makes up 16 acres of the site). The project proposes to develop the site with residential uses. The 0.1-acre off-site sewer line area is located within a right-of-way for existing utilities and is not designated as Prime Farmland. Conversion of the Prime Farmland would constitute a significant impact to agricultural resources. The loss of 16 acres mapped as Grazing Land is not considered an impact under CEQA.

[10] City of Morgan Hill. *Agricultural Lands Preservation Program.* Accessed February 12, 2020. https://www.morgan-hill.ca.gov/1468/Agricultural-Lands-Preservation.

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 16 acres of Prime Farmland 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.

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)**

Impact AG-2:	The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. **(No Impact)**

The 33-acre site is currently zoned for residential uses under the Residential Attached Low-Density zoning district. The site is not under Williamson Act contract. Therefore, the project (under Options 1 and 2) would not conflict with existing zoning for agricultural use, or a Williamson Act contract. **(No Impact)**

Impact AG-3:	The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

The 33-acre site is zoned for residential uses. The project (under Options 1 and 2) would not conflict with existing zoning, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

Impact AG-4:	The project would not result in a loss of forest land or conversion of forest land to non-forest use. **(No Impact)**

The 33-acre site does not contain any forest land. The proposed project (under Options 1 and 2) would not convert and forest land to non-forest use. **(No Impact)**

Impact AG-5:	The project would not 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. **(Less than Significant Impact)**

As discussed under Impact AG-1, the project would convert *Prime Farmland* to non-agricultural use and would be required to incorporate mitigation measures per 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, the proposed project (under Options 1 and 2) 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*

Impact AG-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant agricultural and forestry resources impact. **(Significant and Unavoidable Cumulative Impact)**

The geographic area for cumulative agricultural and forestry resource impacts is the County of Santa Clara. As discussed under Impact AG-1, the project (under Options 1 and 2) would incorporate mitigation measures per the City's Agricultural Mitigation Ordinance to reduce project-level impacts to Prime Farmland, Farmland of Statewide Importance, and Unique Farmland, although those impacts would remain significant and unavoidable. These mitigation measures would require the project to preserve the 16 acres of Prime Farmland lost at a 1:1 ratio for the 33-acre site, 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, in the General Plan EIR the City determined that full buildout through 2035 would result in the conversion of approximately 1,125 acres of farmland to non-agricultural use.[11] This was recognized as a significant and unavoidable impact to agricultural resources. Therefore, the project (under Options 1 and 2) 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)**

[11] City of Morgan Hill. *2035 Draft Environmental Impact Report.* January 2016. Page 4.2-26.

4.3 AIR QUALITY

The following discussion is based in part on an Air Quality and Greenhouse Gas Assessment Analysis completed by Illingworth & Rodkin, Inc. on April 6, 2021, and revised on May 12, 2022. A copy of the report is attached as Appendix B of this DEIR.

As shown in Table 2.2-1, NOP comments on the subject of air quality were received from the BAAQMD. These comments addressed the need for an air quality analysis, and consistency with state and local regulatory plans. See responses to checklist questions 1 through 4, in Section 4.3.2 below.

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.[12] 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

[12] 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.

Table 4.3-1: Health Effects of Air Pollutants		
Pollutants	**Sources**	**Primary Effects**
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. 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).[13] Chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the California Air Resources Board (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

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

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.

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 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.[14]

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

City of Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals and policies to improve air quality issues facing the City of Morgan Hill.[15] The following policies are applicable to the proposed project:

Policy NRE-10.1: **Regional and Subregional Cooperation.** Cooperate with regional agencies in developing and implementing air quality management plans. Support subregional coordination with other cities, counties, and agencies in the Santa Clara Valley and adjacent areas to address land use, jobs/housing balance, and transportation planning issues as a means of improving air quality.

Policy 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 emission controls.

Policy 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.

Policy 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

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

[15] City of Morgan Hill. *City of Morgan Hill 2035 General Plan.* Adopted July 27, 2016. Accessed February 12, 2020. https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId.

development project designs that protect and improve air quality and minimize direct and indirect air pollutant emissions by including components that reduce vehicle trips.

Policy 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.

Policy 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.

Policy NRE-11.3: **Health Risk 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 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.

Policy NRE-11.4: **Truck Routes.** For development projects generating significant heavy-duty truck traffic, design truck routes that minimize exposure of sensitive receptors to toxic air contaminants and particulate matter.

Policy NRE-11.5: **Truck Idling.** For development projects generating significant truck traffic, require signage to remind drivers that the State truck idling law limits truck idling to five (5) minutes.

Policy 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.

Policy NRE-12.1: **Best Practices.** Requirement that development projects implement best management practices to reduce air pollutant emissions associated with construction and operation of the project.

Policy 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 BAAQMD CEQA Guidelines.

Policy 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.

Policy NRE-12.4: **Grading.** Require subdivision designs and site planning to minimize grading and use landform grading in hillside areas.

Morgan Hill Municipal Code

Chapter 15.63 of the Morgan Hill Municipal Code prohibits natural gas infrastructure in new buildings.

4.3.1.3 *Existing Conditions*

The 33-acre site and 0.1-acre off-site sewer line areas are 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 to be one of the cleanest metropolitan areas in the country, with respect to air quality.

Existing Air Pollutant Levels

As mentioned previously, the San Francisco Bay Area Air Basin, within which the 33-acre housing site and off-site sewer line areas are 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.[16] 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.

[16] BAAQMD, Meteorology and Measurement Division. 2019 Air Monitoring Network Plan. July 2019. Accessed April 19, 2021. https://www.baaqmd.gov/~/media/files/technical-services/2019_network_plan-pdf.pdf?la=en. The San Martin monitoring station only monitors ground-level ozone.

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 (approximately 70 feet east of the site) and a rural residence (approximately 300 feet east of the site), located east of Mission View Drive (approximately 300 feet east of the site). There are other single-family residences to the north, east, and south of the site at further distances. The De Paul Health Center is located approximately 500 feet north of the site. In addition, there are children (13 years and older) at the Live Oak High School, 400 feet southeast of the site. This project would also introduce new sensitive receptors (residents).

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?

The proposed differences in on-site stormwater drainage capacity, size and depth of the underground retention facilities, and construction equipment usage when comparing Project Options 1 and 2 would not result in substantially different air quality impacts. The proposed differences in storm drainage, size and depth of the underground retention facilities, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for air quality impacts. The three additional construction workdays required during the grading/excavation for Option 2 (with the increased use of certain heavy construction equipment) would not result in substantially more construction criteria pollutant emissions and TAC emissions when compared to Option 1 (refer to the discussion in Impact AIR-1). There would be no difference in operational air pollutant emissions for Project Options 1 and 2 given the proposed stormwater drainage/control would not affect operational emissions for either option.

Bay Area Air Quality Management District

As discussed in CEQA Guidelines Section 15064(b), the determination of whether a project may have a significant effect on the environment calls for judgment on the part of the lead agency and must be based to the extent possible on scientific and factual data. The City of Morgan Hill has considered the air quality thresholds updated by BAAQMD in May 2017 and regards these thresholds to be based on the best information available for the San Francisco Bay Area Air Basin and conservative in terms of the assessment of health effects associated with TACs and $PM_{2.5}$. The BAAQMD CEQA Air Quality thresholds used in this analysis are identified in Table 4.3-3.

Table 4.3-3: BAAQMD Air Quality Significance Thresholds			
Pollutant	**Construction Thresholds**	**Operation Thresholds**	
	Average Daily Emissions (pounds/day)	**Annual Daily Emissions (pounds/year)**	**Annual Average Emissions (tons/year)**
Criteria Air Pollutants			
ROG, NO_x	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10
CO	Not Applicable	9.0 ppm (eight-hour) or 20.0 ppm (one-hour)	
Fugitive Dust	Dust Control Measures/Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources (within a 1,000-foot Zone of Influence)			
Health Hazard	**Single Source**	**Combined Cumulative Sources**	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental Annual $PM_{2.5}$	0.3 $\mu g/m^3$	0.8 $\mu g/m^3$ (average)	

Friant Ranch Case

In a 2018 decision (*Sierra Club v. County of Fresno*), the Supreme Court of California determined that CEQA requires that the potential for the project's emissions to affect human health in the air basin must be disclosed when a project's criteria air pollutant emissions would exceed applicable thresholds and contribute considerably to a significant cumulative impact. State and federal ambient air quality standards are health-based standards and exceedances of those standards result in continued unhealthy levels of air pollutants. As stated in the BAAQMD CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project has a less than significant impact for criteria air pollutants, it is assumed not to have an adverse health effect with respect to those pollutants.

4.3.2.1 *Project Impacts*

Impact AIR-1:	The project would not conflict with or obstruct implementation of the applicable air quality plan**. (Less than Significant Impact)**

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 Clean Air Plan; 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. 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. **(Less than Significant Impact)**

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 and are summarized in Table 4.3-5 and Table 4.3-6.

Construction-Related Criteria Pollutant Emissions

The proposed project (under Options 1 and 2) is anticipated to be constructed in four phases. The construction schedule for Options 1 and 2 would be similar, as both would require an overall duration of approximately 41 months. The implementation of Option 2 would require three more construction workdays compared to Option 1, resulting in a total of 18 workdays. Option 2 would include an increase in equipment usage for 16 of the 18 workdays for the use of certain heavy equipment such as excavators (which would be seven more days than Option 1), graders (five more days than Option 1), scrapers (two more days than Option 1), and tractors/loaders (two more days

than Option 1). The California Emissions Estimator Model (CalEEMod) was used to estimate annual emissions for both on- and off-site construction activities. Average daily emissions were annualized for each year of construction by dividing the annual construction emissions by the number of active workdays during that year. On-site activities would include construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic. The project land use types and size, and anticipated construction schedule, for the proposed development and De Paul Drive extension were input to CalEEMod, as shown in Table 4.3-4 below.

Table 4.3-4: Summary of Residential and De Paul Drive Extension Phasing

Project Land Uses	Size	Units	Square Feet	Acreage
Phase 1 (Whole Site Preparation/Grading), 2023				
Single Family Housing	269	Dwelling Units	512,363	30.5
Phase 2 (40 condominium units, 32 single-family attached units, and 34 single-family detached units), 2023-2024				
Single Family Housing	54	Dwelling Units	39,600	12.2
Condo/Townhouse	40	Dwelling Units	40,000	
Recreational Swimming Pool	3	1,000 square feet	3,000	
Other Asphalt Surface	1.2	Acre	52,272	
Phase 3 (66 single-family detached units and 45 condominium units), 2024-2026				
Single Family Housing	66	Dwelling Units	118,000	12.9
Condo/Townhouse	45	Dwelling Units	45,000	
Other Asphalt Surface	1.3	Acre	56,528	
DePaul Extension, 2024-2025				
Other Asphalt Surface	1.4	Acre	60,984	1.4
Phase 4 (64 condominium units), 2026-2027				
Condo/Townhouse	64	Dwelling Units	64,000	2.9
Other Asphalt Surface	0.5	Acre	21,780	

Table 4.3-5 shows the average daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the proposed residential development and DePaul Drive extension.

Table 4.3-5: Construction Period Emissions: Residential Development and DePaul Drive				
Year	**ROG**	**NO_X**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**
Construction Emissions Per Year (Tons)				
2022 (Whole Site Prep/Grading Phase and Phase 1) – Option 1	1.05	0.67	0.03	0.03
2022 (Whole Site Prep/Grading Phase and Phase 1) – Option 2	1.06	0.70	0.04	0.03
2023 (Phase 2, DePaul Extension Phase, and Phase 2)	0.03	0.29	0.02	0.02
2024 (Phase 3)	1.20	0.27	0.02	0.01
2025 (Phase 4)	0.49	0.27	0.01	0.01
Annualized Daily Construction Emissions (Pounds/Day)				
2022 (154 construction workdays) – Option 1	13.68	8.64	0.44	0.42
2022 (157 construction workdays) – Option 2	13.74	9.10	0.47	0.44
2023 (220 construction workdays)	0.30	2.60	0.18	0.17
2024 (210 construction workdays)	11.39	2.53	0.15	0.14
2025 (140 construction workdays)	6.95	3.85	0.21	0.21
BAAQMD Thresholds	*54 lbs/day*	*54 lbs/day*	*82 lbs/day*	*54 lbs/day*
Exceed Threshold?	***No***	***No***	***No***	***No***

As shown in Table 4.3-5, the difference between construction period emissions for Option 1 and Option 2 is minimal. Under both project options, the proposed project would not exceed BAAQMD thresholds for construction emissions.

As stated in Section 3.2-5, Water and Sanitary Sewer Utilities, the project would install a 2,745-foot off-site sanitary sewer line that would extend from Half Road to Condit Road, and then to East Main Avenue. Construction of the sewer line would be completed in 18 construction workdays and occur during the grading phase of the residential site and DePaul Drive. Table 4.3-6 shows the average

daily construction emissions of ROG, NO_X, PM_{10} exhaust, and $PM_{2.5}$ exhaust during construction of the proposed off-site sanitary sewer line.

Table 4.3-6: Construction Period Emissions: Off-site Sanitary Sewer Line				
Year	**ROG**	**NO_X**	**PM_{10} Exhaust**	**$PM_{2.5}$ Exhaust**
Construction Emissions Per Year (Tons)				
2022 (Construction of 2,745-foot off-site sanitary sewer line)	0.01	0.13	0.01	<0.01
Annualized Daily Construction Emissions (Pounds/Day)				
2022 (18 construction workdays)	1.10	14.08	0.56	0.42
BAAQMD Thresholds	*54 lbs/day*	*54 lbs/day*	*82 lbs/day*	*54 lbs/day*
Exceed Threshold?	***No***	***No***	***No***	***No***

As shown, construction period criteria pollutant emissions for the proposed residential development, DePaul Drive extension, and off-site sanitary sewer line would not exceed BAAQMD significance thresholds. However, construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries.

Implementation of the BAAQMD best management practices listed below, labeled as Standard Condition AIR-1, would reduce construction criteria pollutant emissions impacts to a less than significant level.

Standard Condition AIR-1: The following measures shall be implemented during all phases of construction to control dust and exhaust at the project site:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. 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.
4. All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph).
5. 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.
6. Replant vegetation in disturbed areas as soon as possible after completion of construction.
7. 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.

8. 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.
9. 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.

Emissions from project construction would not exceed BAAQMD emissions thresholds. The project, with the implementation of Standard Condition AIR-1, would reduce fugitive dust emissions to a less than significant level by controlling dust and exhaust, limiting exposed soil surfaces, and reducing PM_{10} and $PM_{2.5}$ exhaust emissions from construction equipment.

Operational Period Emissions

The difference in storm drainage options and underground bioretention basins, when comparing Project Options 1 and 2, would have no effect on operational air pollutant emissions. Operational air pollutant emissions from the proposed project (under Options 1 and 2) 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 same land uses shown in Table 4.3-4 were input for operational project land uses (269 single-family residential units; 3,000 square foot recreational swimming pool, and three acres of other asphalt surfaces). Operational emissions were modeled based on the assumption that construction would begin in 2022 and the earliest year of full project operation would be 2026. Additionally, the project-specific daily trip generation rate from the Transportation Impact Analysis (TIA) completed for the project was entered in the CalEEMod model. The model assumed the project would generate a vehicle miles traveled (VMT) of 27.41 miles per capita (i.e., resident) per day. Based on a population rate of 3.14 persons per household, the project would equate to 845 residents that would result in a weekday VMT estimate of 23,161 miles per day.[17,18] It was assumed that natural gas would not be used for the proposed residences.

Table 4.3-7 shows average daily operational emissions of ROG, NO_X, total PM_{10} and total $PM_{2.5}$ during operation of the project.

[17] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2010-2019*. Sacramento, California. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

[18] 3.11 persons per household x 269 dwelling units = 837 people x 27.41 miles per person per day = VMT estimate of 23,161 miles per day.

Table 4.3-7: Operational Period Emissions				
Scenario	**ROG**	**NO_x**	**PM_{10}**	**$PM_{2.5}$**
2026 Project Operational Emissions (tons/year)	3.35 tons	1.68 tons	3.12 tons	0.86 tons
BAAQMD Thresholds (tons/year)	*10 tons*	*10 tons*	*15 tons*	*10 tons*
Exceed Thresholds?	No	No	No	No
2026 Project Operational Emissions (lbs/day)	18.36 lbs	9.21 lbs	17.10 lbs	4.71 lbs
BAAQMD Thresholds (lbs/day)	*54 lbs*	*54 lbs*	*82 lbs*	*54 lbs*
Exceed Thresholds?	No	No	No	No

As shown in Table 4.3-7 above, operational period emissions would not exceed BAAQMD significant thresholds emissions for the project, under both project options.[19]

For all the reasons listed above, the project (under Options 1 and 2) would not result in a significant criteria air pollutant impact from construction or operational emissions**.** (**Less than Significant Impact)**

Impact AIR-2:	The project would not 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. **(Less than Significant Impact)**

Construction and operational criteria pollutant emissions associated with the project (for Options 1 and 2) would not exceed the BAAQMD significance thresholds (refer to the response to question Impact AIR-1). 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)**

Impact AIR-3:	The project would not expose sensitive receptors to substantial pollutant concentrations. **(Less than Significant Impact)**

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).

[19] The air quality/GHG assessment assumed an average household size 3.11 as this was the latest data available at the time the assessment was initially prepared; the VMT total VMT per day was estimated to be 22,942 miles per day. Given the project's operational criteria pollutant emissions are well below the BAAQMD thresholds, an additional 219 VMT miles per day would not cause the project's operational emissions to exceed BAAQMD thresholds.

Community Health Risks from Project Construction

Construction of the proposed project (under Options 1 and 2) would generate dust and equipment exhaust that could affect nearby sensitive receptors. Construction equipment and associated heavy-duty truck traffic generates 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 issue 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 $PM_{2.5}$.

Community Health Risks from Project Operation

Operation of the project (under Options 1 and 2) would have long-term emissions from mobile sources (i.e., traffic). Stationary equipment that could emit substantial TACs, such as emergency generators, are 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. The proposed project would generate 2,539 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

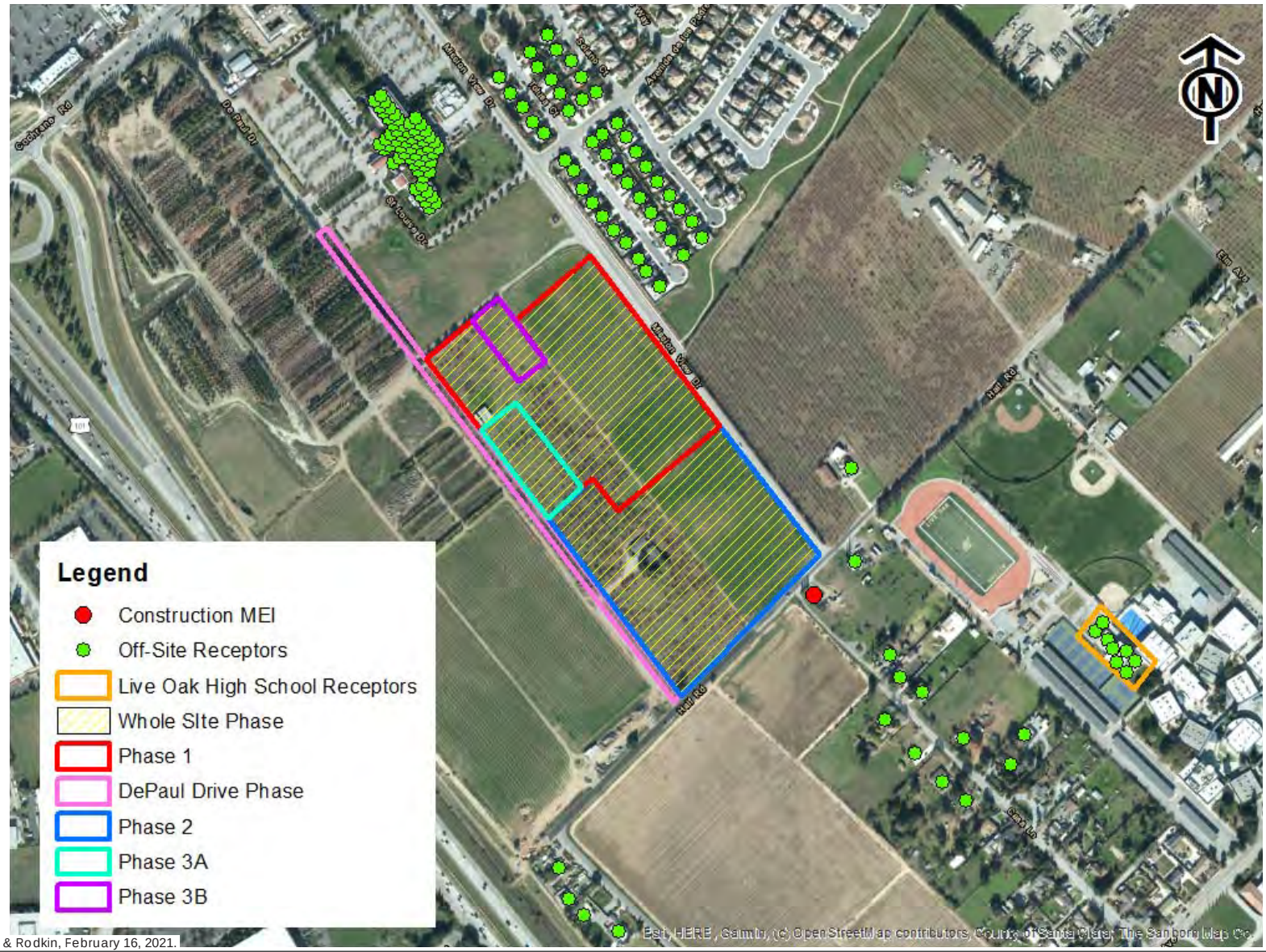
The overall project increased cancer risk is computed by summing the project construction cancer risk and operation cancer risk contributions. The project maximally exposed individual (MEI) is identified as the sensitive receptor that is most impacted by the project's construction and operation. As shown on Figure 4.3-1, the construction off-site MEI (also the project MEI) was determined to be the residence south of the project site. [20,21] At this location, the MEI would be exposed to four years of construction cancer risks. Table 4.3-8 shows the construction risk impacts at the off-site project MEI.

[20] The construction off-site MEI refers to the sensitive receptor most affected by construction of the proposed project, while the project MEI refers to the residential receptor that would be most affected by emissions from traffic on Mission View Drive.

[21] Although the construction MEI appears to currently be used for commercial/industrial purposes. It is possible that it is also occupied by residents or could be in the future.

Table 4.3-8: Construction and Operation Risk Impacts at the Off-Site Receptors			
Source	**Cancer Risk (per million)**	**Annual $PM_{2.5}$ ($\mu g/m^3$)**	**Hazard Index (HI)**
Option 1 Project Construction, unmitigated Option 2 Project Construction, unmitigated	3.6 (infant) 3.8 (infant)	0.02 (0.02)	<0.01 (<0.01)
..Off-site Sanitary Sewer Line Construction	0.02 (infant)	<0.01	<0.01
BAAQMD Single-Source Threshold	>10.0	>0.3	>1.0
Exceed Threshold?	No	No	No
Live Oak High School Student Receptors			
Option 1 Project Construction, unmitigated Option 2 Project Construction, unmitigated	0.1 (child) 0.1 (child)	0.01 0.01	<0.01 <0.01
Off-site Sanitary Sewer Line Construction	<0.01 (child)	<0.01	<0.01
BAAQMD Single-Source Threshold	>10.0	>0.3	>1.0
Exceed Threshold?	No	No	No
Source: Illingworth & Rodkin, Inc. *The Crosswinds at Morgan Hill Air Quality and Greenhouse Gas Assessment.* May 12, 2022.			

Cancer risks, $PM_{2.5}$ concentration, and HI from construction activities at the project MEI location would not exceed the BAAQMD single-source significance thresholds. 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, toxic air contaminant emissions from project construction and operations (under both project options) would have a less than significant impact on sensitive receptors. **(Less than Significant Impact)**



Source: Illingworth & Rodkin, February 16, 2021.

LOCATIONS OF OFF-SITE SENSITIVE RECEPTORS AND MAXIMUM TAC IMPACT LOCATIONS | FIGURE 4.3-1

Impact AIR-4:	The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. **(Less than Significant Impact)**

Emissions of air pollutants or TACs are addressed under Impacts AIR-2 and AIR-3. In terms of odor emissions, 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. Therefore, odors that could cause complaints from the general public and affect a substantial number of people are not expected and impact would be less than significant. **(Less than Significant Impact)**

4.3.2.2 *Cumulative Impacts*

Impact AIR-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant air quality impact. **(Less than Cumulatively Considerable Contribution to a Significant Cumulative 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 (under Options 1 and 2) would not result in significant construction or operational emissions above BAAQMD thresholds; therefore, with the implementation of 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 most affected (i.e., the project MEI) by construction of the proposed residences, DePaul Drive extension, and off-site sanitary sewer line is within 1,000 feet of the site. Without mitigation, the project's community risk from project construction activities would not exceed the single-source maximum increased cancer risk, $PM_{2.5}$ concentration or HI thresholds, as shown in Table 4.3-9 (for both project options). In addition,

the combined unmitigated cancer risk, $PM_{2.5}$ concentration, and HI values would not exceed their respective cumulative thresholds.

Table 4.3-9: Cumulative Community Risk Impacts from Combined TAC Sources at MEIs			
Source	**Cancer Risk (per million)**	**Annual PM2.5 (µg/m³)**	**Hazard Index (HI)**
Project Impacts			
Project Residential and DePaul Drive Extension Construction, unmitigated	3.6 (infant) – Option 1 3.8 (infant) – Option2	0.02 (Options 1 and 2)	<0.01 (Options 1 and 2)
Off-site Sanitary Sewer Line Construction	0.02 (infant)	<0.01	<0.01
BAAQMD Single-Source Threshold	>10.0	>0.3	>1.0
Exceed Threshold?	No	No	No
Cumulative Sources			
Mission View Drive, ADT[1] 14,020	1.5 (infant)	0.09	<0.01
Combined Sources, unmitigated	5.12 (infant) – Option1 5.32 (infant) – Option 2	0.12 (Options 1 and 2)	<0.03 (Options 1 and 2)
BAAQMD Cumulative Source Threshold	>100	>0.8	>10.0
Exceed Threshold?	No	No	No

[1] ADT = Average Daily Traffic

Source: Illingworth and Rodkin, Inc. *The Crosswinds at Morgan Hill Air Quality & Greenhouse Gas Assessment.* May 12, 2022.

There is one relevant cumulative project, the Redwood Tech at 101 Project, immediately south of DePaul Drive, located within 1,000 feet of the project site. Diesel-operated emissions during construction of this project is considered a TAC source. The construction dates, phasing, and type of equipment for this project are unknown at this time. The Redwood Tech project would implement BAAQMD construction best management practices that identify construction equipment necessary to reduce impacts on sensitive receptors to less than significant levels. As a Condition of Approval, the Redwood Tech Center project would implement a dust, noise, vibration, and materials management plan which would reduce air pollutant emissions during construction. The management plan would include requirements such as developing a plan demonstrating off-road equipment (more than 50 horsepower) to achieve a project fleetwide average of 20 percent reduction in NO_x and 45 percent reduction in particulate matter (PM) emissions. All off-road equipment would be required to meet CARB's most recent standards for heavy-duty diesel engines. Additionally, all construction equipment, diesel trucks, and generators would be equipped with the

Best Available Control Technology for emission reductions of NO_x and PM. As a result, based on the best information available, the cumulative impact from construction of the approved Redwood Tech project, emissions from mobile TAC sources (e.g., Mission View Drive), and project construction (with the implementation of Standard Condition AIR-1 to reduce fugitive dust emissions) would be less than significant.

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.

In addition to evaluating health impacts from project construction, a health risk assessment was completed to assess the impact that existing TAC sources would have on the new proposed sensitive receptors (residences) that the project would introduce.

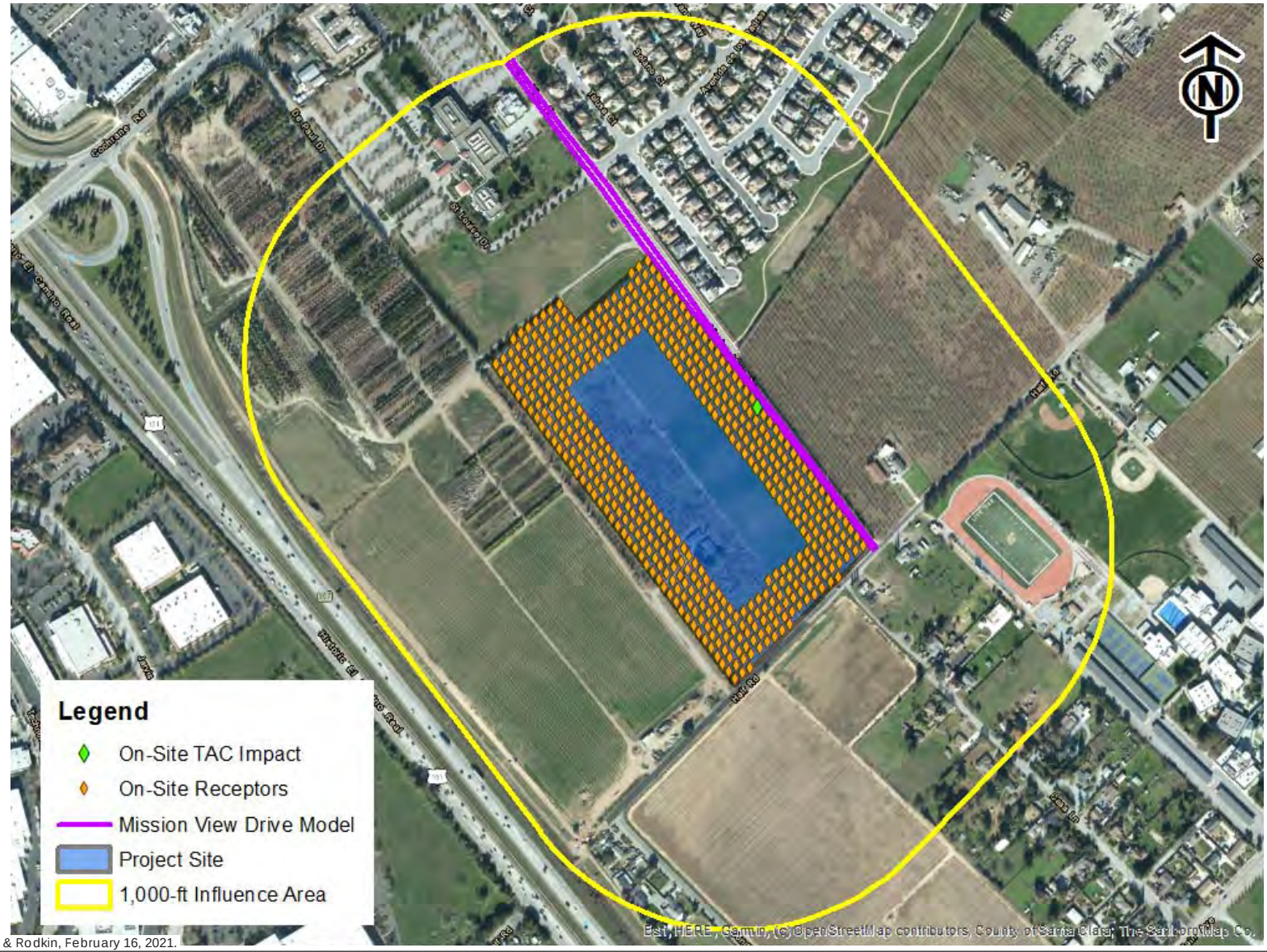
On-Site Community Risk Assessment for TAC Sources

Local Roadways – Mission View Drive

Maximum increased cancer risks were calculated for the residents at the project site using the maximum modeled TAC concentrations. A 30-year exposure period was used in calculating cancer risks assuming the residents would include third trimester pregnancy and infants/children. It was assumed residents would be exposed to TAC concentrations for 24 hours per day for 350 days per year. The maximally exposed on-site receptor would be located on the first floor at a residence along the eastern boundary of the project site (closest to the Mission View Drive). Cancer risks associated with Mission View Drive are greatest closest to Mission View Drive and decrease with distance from the road (the project's on-site sensitive receptors are shown on).

Community Health Risks at the Project Site

The location of future receptors at the site are shown on Figure 4.3-2. The results from the community health risk assessment of the effects of TAC sources on future receptors at the project site are shown in Table 4.3-10. The TAC sources are compared against the BAAQMD single-source threshold.



Source: Illingworth & Rodkin, February 16, 2021.

PROJECT SITE, ON-SITE RESIDENTIAL RECEPTORS, ROADWAY SEGMENTS EVALUATED, AND LOCATIONS OF MAXIMUM ROADWAY TAC IMPACTS | FIGURE 4.3-2

Table 4.3-10: Effects of TAC Sources to Project Site Receptors			
Source	**Cancer Risk (per million)**	**Annual $PM_{2.5}$ ($\mu g/m^3$)**	**Hazard Index (HI)**
Mission View Drive, ADT 14,020	8.5 (infant)	**0.55**	<0.01
BAAQMD Single-Source Threshold	**>10.0**	**>0.3**	**>1.0**
Exceed Threshold?	No	**Yes**	No
BAAQMD Cumulative Source Threshold	**>100**	**>0.8**	**>10.0**
Source: Illingworth and Rodkin, Inc. *The Crosswinds at Morgan Hill Air Quality & Greenhouse Gas Assessment.* May 12, 2022.			

The only other known TAC source within 1,000 feet that would affect residents of the proposed project are operational truck trips that would be associated with the approved Redwood Tech project immediately west of the site. At this time, the number of operational truck trips, truck routes, or associated emissions with the pending Redwood Tech project are unknown. However, based on modeling completed for a former industrial project proposed on that site in 2019 approximately two times larger than the current Redwood Tech project, the combined effect of emissions of truck operations from the pending Redwood Tech project and vehicle emissions from Mission View Drive would not likely result in a substantial cumulative effect from TAC sources (i.e., would not likely exceed cumulative BAAQMD thresholds) on sensitive receptors at the site. If the Redwood Tech project undergoes construction after the proposed project (under Options 1 and 2) starts operations (and residents are on-site), the cumulative effect of construction and operations of the Redwood Tech project may result in substantial cancer risks without the implementation of conditions of approval for construction emissions.

However, as discussed in Section 4.3.2.2 Cumulative Impacts, as a Condition of Approval for the Redwood Tech project, all construction equipment would consist of the Best Available Control Technology for emission reductions of NO_x and PM. The Redwood Tech project would also comply with Conditions of Approval related to reduce emissions of off-road equipment. With the implementation of the proposed project's Standard Condition AIR-1 (under Options 1 and 2) and Redwood Tech project Conditions of Approval, the combined projects would not result in cumulative cancer risk, $PM_{2.5}$ concentrations, and His above BAAQMD cumulative thresholds at the project's residences.

Design Features to Reduce Project Receptor Exposure

Filtration in ventilation systems at the project site would be recommended to reduce the level of harmful pollutants to below the significant thresholds. The substantial exposure to TACs for new project receptors is evaluated via the following criteria: (1) increased cancer risk, and (2) annual $PM_{2.5}$ concentration. Exposure to annual $PM_{2.5}$ concentrations from Mission View Drive traffic is above the BAAQMD single-source threshold of 0.3 $\mu g/m^3$. Cancer risk mostly results from exposure to diesel particulate matter, although, gasoline vehicle exhaust contributes to this effect. Annual $PM_{2.5}$ concentrations are based on the exposure to $PM_{2.5}$ resulting from emissions attributable to truck and automobile exhaust, the wearing of brakes and tires, and roadway dust from vehicles traveling over pavement. Reducing particulate matter exposure would reduce both annual $PM_{2.5}$ exposures and cancer risk.

Condition of Approval: The project shall include the following conditions prior to building occupancy to reduce long-term increased cancer risk and annual $PM_{2.5}$ exposure for new project occupants:

1. Install air filtration in the project's residential units within 75 feet of Mission View Drive travel lanes. Air filtration devices shall be rated MERV13 or higher. To ensure adequate health protection to sensitive receptors (i.e., residents), this ventilation system, whether mechanical or passive, shall filter all fresh air that would be circulated into the dwelling units.

2. The ventilation system shall be designed to keep the building at positive pressure when doors and windows are closed to reduce the intrusion of unfiltered outside air into the building.

3. As part of implementing this measure, an ongoing maintenance plan,, to be prepared by the Homeowners Association's (HOA's) heating, ventilation, and air conditioning (HVAC) contractor, for the buildings' HVAC air filtration system shall be required.

4. The HOA shall ensure the Covenants, Conditions and Restrictions and other property documents: (1) require cleaning, maintenance, and monitoring of the affected buildings for air flow leaks, (2) include assurance that new owners or tenants are provided information on the ventilation system, and (3) include provisions that fees associated with owning or leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed. The HOA's property managers/contractors will be responsible for maintaining the air filtration system at each residential unit.

Assuming the maximally exposed individual on-site is being exposed to 21 hours of indoor filtered air and three hours of outdoor unfiltered air, the overall effectiveness of a MERV13 filtration system would be about 70-percent for $PM_{2.5}$ exposure. With the installation of this filtration system, the maximum annual $PM_{2.5}$ concentration from Mission View Drive would be reduced to 0.16 $\mu g/m^3$ (below the BAAQMD single-source threshold of 0.3 $\mu g/m^3$).

4.4 BIOLOGICAL RESOURCES

The following discussion is based, in part, on an Arborist Report prepared by David L. Babby on February 12, 2021. A copy of the report is attached as Appendix C of this DEIR.

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 under 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.[22] 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.

[22] United States Department of the Interior. "Memorandum M-37050. The Migratory Bird Treaty Act Does Not Prohibit Incidental Take." Accessed October 20, 2020. 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 per 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, 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.

City of Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals and policies to protect biological resources in the City of Morgan Hill. The following policies related to biological resources are applicable to the proposed project:

Policy 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.

Policy 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.

City of Morgan Hill Tree Removal Controls

The City of Morgan Hill maintains the urban natural landscape partly by promoting the health, safety, and welfare of the City by controlling the removal of significant sized trees (Municipal Code 12.32.020, G.). According to the City of Morgan Hill Tree Removal Controls, a significant tree is

considered to be a tree with a single stem or trunk of a circumference of 40 inches (or diameter of 12.7 inches) or more for nonindigenous species and a circumference of 18 inches (or diameter of 5.7 inches) or more for indigenous species measured at four and one-half feet vertically above the ground. Indigenous species to Morgan Hill include oak (all types), California bay, madrone, sycamore, and alder trees.

"Street trees" are also protected and defined as a tree, of any size, situated within the public street right-of-way or publicly accessible private street (e.g., trees within a landscape park strip), or within five feet of publicly accessible sidewalk adjacent to a public or private street in the case of a street without a landscape park strip.

A "community of trees," which is a group of trees of any size which are ecologically or aesthetically related to each other such that loss of several of them would cause a significant ecological, aesthetic, or environmental impact in the immediate area, are protected under the City's ordinance.

In addition, the Tree Removal Controls specify that all commercial tree farms, nonindigenous tree species in residential zones, and orchards (including individual fruit trees) are exempted from the definition of significant tree.

City of Morgan Hill Burrowing Owl Habitat Mitigation Plan

Since 2003, the City of Morgan Hill has implemented a citywide program (Burrowing Owl Habitat Mitigation Plan) to evaluate and mitigate impacts to burrowing owls and potential burrowing owl habitat that could result from development activities within the City limits. Under the Burrowing Owl Habitat Mitigation Plan, the City requires pre-construction owl surveys to be completed in areas of potentially suitable habitat (generally any grassland and/or mixed herbaceous vegetation below 600 feet above mean sea level) within 30 days of the onset of construction.

4.4.1.2 *Existing Conditions*

The approximately 33-acre site, where 269 residences and the DePaul Drive extension are proposed, is predominantly covered by fallowed agricultural fields, non-native grassland, and boxed trees. A vacant single-family residence is located on the southwestern section of the site. While the site is largely undeveloped, it has been historically disturbed by agricultural activities and is bordered by development to the north and east, with a vacant grassland area to the west, and Half Road to the south. For these reasons, the site contains limited habitat suitable for wildlife species occurring in the area. The Madrone Channel, a man-made drainage feature conveying storm water runoff south, is located approximately 500 feet west of the site.

Trees

The 33-acre site contains eight trees, four of which are ordinance-sized. Table 4.4-1 below shows the types, numbers, and conditions of trees on the project site.[23]

Table 4.4-1: Trees On-Site				
Common Name	**Count**	**Condition**	**Trunk Diameter (inches)**	**Ordinance-sized?**
California buckeye	1 (multiple trunks)	Poor	8, 7, 6, 5, 4 (multiple trunks)	No
Monterey pine	1	Fair	26	Yes
Pepper tree	1	Fair	44	Yes
Carolina laurel cherry	2	Dead	6, 7	No
Chaste tree	1 (multiple trunks)	Poor	10, 10, 7 (multiple trunks)	No
Ponderosa pine	2	Poor	25, 32	Yes

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?

[23] No trees would be located within the footprint of the off-site sanitary sewer installation.

The proposed differences in storm drainage management, size and depth of the underground retention facilities, and construction equipment usage, when comparing Project Options 1 and 2, would not result in differing biological resources impacts given the facilities are underground. Therefore, the mitigation measures to be implemented and conclusions for biological resources impacts would be the same for Project Options 1 and 2.

4.4.2.1 *Project Impacts*

Impact BIO-1:	The project would not 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. **(Less than Significant Impact with Mitigation Incorporated)**

The project site does not contain any known candidate, sensitive, or special-status species, nor does it contain sensitive habitat. The site is not located in a plant or wildlife survey area as identified in the Habitat Plan. The extent of disturbance of the areas surrounding the project site and the historical use of the project site greatly reduce its suitability for sensitive species. Further, the project site is surrounded by development to the north and northeast, agricultural lands to the south and southeast, and would provide minimal dispersal habitat for native wildlife in the area.

The proposed project (under Options 1 and 2) would remove all existing trees on the 33-acre site. The mature trees on-site have the potential to provide nesting or foraging habitat for nesting raptors and migratory birds. Nesting raptors and migratory birds are protected under state and federal regulations. At the time of development, raptors and migratory birds could be nesting in the trees and vegetation on and adjacent to the project site. Project construction and tree removal during the avian breeding season could result in direct or indirect impacts to eggs and nestlings. This would constitute a significant impact requiring project-level mitigation.

Mitigation Measures: The following mitigation measures will reduce impacts from construction at the project site nesting raptors and migratory birds to a less than significant level:

MM BIO-1.1: Construction shall be scheduled to avoid the nesting season. If construction can be scheduled to occur between September 1st and January 31st (inclusive) to avoid the raptor nesting season, no impacts will be expected. If construction will take place between February 1st and August 31st, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. Performance of the required surveys for construction occurring between February 1st and August 31st will ensure that impacts to nesting raptors are reduced to less than significant. Surveys will be completed within 30 days of the on-set of tree removal, site clearing or construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g.,

trees, shrubs, buildings) onsite trees as well as all trees within 250 feet of the site for nests. The pre-construction survey shall be submitted to the City's Development Services Director or the Director's designee for review prior to tree removals or issuance of a grading permit.

MM BIO-1.2: 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 disturbance-free buffer zone to be established around the nest (typically 250 feet for raptors and 50-100 feet for other species) that will remain off limits to construction until the nesting season is over, to ensure that no nests of species protected by the Migratory Bird Treaty Act and California Fish and Wildlife Code will be disturbed during project implementation. A report indicating the result of the survey and any designated buffer zones shall be submitted to the satisfaction of the City's Development Services Director or Director's designee prior to removal of trees and issuance of a grading permit.

With the implementation of the above mitigation measures, the project (under Options 1 and 2) would not result in a substantial adverse impact on sensitive species regulated by the CDFW or USFW. **(Less Than Significant Impact with Mitigation Incorporated)**

Impact BIO-2:	The project would not 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. **(No Impact)**

The project site is located within a mixed urban and rural area of the City. There are no riparian habitats located on the 33-acre site or within the footprint of the proposed off-site sanitary sewer installation. The Madrone Channel is approximately 500 feet west of the site to the west but is an engineered drainage channel and provides minimal habitat value. There are no sensitive natural communities located on or adjacent to the project site. Therefore, the proposed project (under Options 1 and 2) would not result in adverse effects to riparian habitat or other sensitive natural communities. **(No Impact)**

Impact BIO-3:	The project would not have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. **(No Impact)**

The 33-acre site and off-site sewer installation area do not contain any wetlands. Therefore, implementation of the project (under Options 1 and 2) would not result in a substantial adverse effect on protected wetlands. **(No Impact)**

Impact BIO-4:	The project would not 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. **(No Impact)**

The 33-acre site and off-site sewer installation area are located within a mixed urban and rural area of the City. Since the 33-site is surrounded by development and the off-site sanitary sewer installation area is located within an existing right of way for utilities, these areas do not provide linkages to natural areas located at the City's northern and eastern boundaries. As discussed under Impact BIO-2, the 33-acre site and the proposed off-site sanitary sewer line area do not contain riparian corridors which could facilitate migratory fish and avian movement. The project (under Options 1 and 2) would, therefore, not interfere with the movement of fish or wildlife species, nor interfere with established migratory corridors or wildlife nursery sites. **(No Impact)**

Impact BIO-5:	The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **(Less than Significant Impact with Mitigation Incorporated)**

Tree Removal

The 33-acre site contains four ordinance-sized trees as defined by the City of Morgan Hill. This includes one Monterey pine, one Peruvian pepper tree, and two Ponderosa pines. No trees are located on the portions of Half Road, Condit Road, East Main Avenue in which the off-site sewer line would be located. Therefore, trees would not be impacted by the off-site sewer line installation.

In accordance with the Municipal Code Section 12.32.030, the applicant must apply for a tree removal permit prior to the removal of these trees. In accordance with Municipal Code Section 12.32.080, the project applicant would replace these trees with plantings of trees acceptable to the City's Development Services Director or Director's designee. The removal, cutting down, poisoning, or other destruction of protected trees, including pruning that would reduce the canopy area by more than 25 percent of any Ordinance sized tree, would require permits or mitigation measures under the City Municipal Code (Chapter 12.32). The project (under Options 1 and 2) would remove four ordinance-sized (protected) trees; mitigation to offset impacts to these trees would be required.

Mitigation Measures: The following mitigation measures will ensure impacts to ordinance sized trees are reduced to a less than significant level.

MM BIO-5.1: The project applicant shall comply with local ordinances and submit permit applications for removal, trimming, damage, or relocation of all trees covered by the City ordinance. Any trees to be removed shall require replacement at a two-to-one ratio on a comparable ratio of size. The replacement trees shall be planted on site to the extent feasible and the project proponent shall comply

with all other replacement requirements imposed by the City. Prior to tree removal, the project applicant shall apply for a tree removal permit, which will be reviewed by the City's Development Services Director or Director's designee.

With the implementation of the above mitigation measure, project construction would not result in a significant impact to any sensitive species, nor would it conflict with a tree preservation policy. **(Less Than Significant Impact with Mitigation Incorporated)**

Impact BIO-6:	The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **(Less than Significant Impact)**

As mentioned previously, the project site is covered under the Habitat Plan, designated as "Urban Development Equal to or Greater than 2 Acres".[24] The land cover of the site is comprised of a mix of "Grain, Row-crop, Hay and Pasture, Disked/Short-term Fallowed" and the entire site is located within Fee Zone B (Agricultural and Valley Floor Lands). The proposed project would be required to pay this fee to offset the loss of this land cover type. The project site is not located in any other fee zone or within or adjacent to any plant or wildlife survey area.

The Habitat Plan also considers covered activities to result in a certain number of indirect impacts from urban development mostly in the form of increased impervious surface and from the effects of nitrogen deposition. Development that increases the intensity of land use results in increased air pollutant emissions from vehicles. Emissions from these sources are known to increase airborne nitrogen, of which a certain amount is converted into forms that can fall to earth as depositional nitrogen. It has been shown that increased nitrogen in serpentine soils can favor the growth of nonnative annual grasses over native serpentine species and these nonnative species, if left unmanaged, can overtake the native serpentine species, which are host plants for larval Bay Checkerspot butterfly. As such, covered projects within the Habitat Plan area are subject to paying a "Nitrogen Deposition Impact Fee" which is calculated based on the number of daily vehicle trips attributed to the activity and collected prior to the commencement of the use.

In addition, all covered activities in the Habitat Plan are subject to certain conditions (as identified in Chapter 6 of the Plan) based on the project's location and type of project. To ensure that the project (under Options 1 and 2) complies with conditions of the Habitat Plan, the conditions would be applied to each component as part of the entitlement approval conditions and/or other permits (i.e., grading permits, building permits, etc.).

The City of Morgan Hill has adopted the Habitat Plan and, as an ordinance[25] implementing the measures and conditions set forth in the Habitat Plan, would levy applicable impact fees and

[24] Santa Clara Valley Habitat Agency. *Habitat Agency Geobrowser*. Accessed October 27, 2020. http://www.hcpmaps.com/habitat/.
[25] Chapter 18.132 of the City of Morgan Hill Municipal Code.

incorporate relevant conditions on covered activities into the project. Therefore, the project (under Options 1 and 2) would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. **(Less Than Significant Impact)**

4.4.2.2 *Cumulative Impacts*

Impact BIO-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant biological resources impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

The geographic area for cumulative biological resources impacts is the project site and adjacent parcels. As described above, there is potential for nesting and migratory birds to occur in the project area. The project (under Options 1 and 2) would not impact sensitive habitats or special status species. Therefore, the project would not contribute to a cumulative impact. The Redwood Tech project was approved immediately west of DePaul Drive. The Redwood Tech project was exempt from CEQA and would not require mitigation measures; however, the project would comply with General Plan policies and would be subject to fees and conditions contained in the Habitat Plan. 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 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 and applicable Habitat Plan conditions. Payment of Habitat Plan nitrogen deposition fees ensures that the 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* and dated June 2019, and a Historic Evaluation Report, prepared by *Urban Programmers Historic Preservation and Urban Revitalization Consultants (Urban Programmers)* and dated June 2019. The Archaeological Resources Assessment Report contains sensitive information and is available for review by qualified persons at Morgan Hill City Hall. A copy of the Historic Evaluation Report is attached as Appendix D of this DEIR.

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.[26]

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

[26] California Office of Historic Preservation. "CEQA Guidelines Section 15064.5(a)(3) and California Office of Historic Preservation Technical Assistance Series #6." Accessed August 31, 2020. 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.

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts due to loss of cultural resources.[27] The following policies related to cultural resources are applicable to the proposed project:

Policy HC-8.1: **Identify and Protect Resources.** Identify and protect heritage resources from loss and destruction. (South County Joint Area Plan 15.09)

Policy HC-8.2: **Historic Structures.** Encourage the preservation and rehabilitation of the City's historic structures.

[27] City of Morgan Hill, California (2016). "Chapter 6, Healthy Community." *City of Morgan Hill General Plan 2035.* Accessed September 20, 2021. https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId.

Policy 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.

Policy 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.

Policy 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.[28]

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 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.[29]

4.5.1.2 *Existing Conditions*

Historic Resources

The 33-acre site consists of a vacant single-story house, barn, tanks, and sheds. The house on-site was constructed circa 1957. Resources greater than 50 years in age are considered potentially historic and require evaluation for their potential historical significance under the California Register's eligibility criteria. As such, these properties were the subject of the historic evaluation completed by *Urban Programmers.*

[28] City of Morgan Hill. Municipal Code Chapter 18.60 – Historic Resources.
[29] County of Santa Clara – Department of Planning and Development. *Historic Context Statement.* December 2004. Revised February 2012.

The single-family house and ancillary (barn) structure (APN 728-30-004) were constructed in 1957 and are located in a rural setting. The house is a California Ranch Style common economical type of construction without artistic style. Across from the house is a single-story utility barn, which was likely used as a packing shed and storage space. The house and barn are vacant and in poor condition.

The property was historically used for agricultural purposes since at least 1912. The original owner was William Pierce. Ownership of the site has changed several times over the past century, most recently being sold by Patricia A. Hann to Llagas LLC in 2000. For the last several years, the house on-site has not been occupied by the owner. The site was used for agricultural purposes (orchard trees) until 2019.

The property is not listed in the Historic Properties Directory for Santa Clara County or the Morgan Hill Historic Resources Inventory. *Urban Programmers* found that the property was not directly associated with individuals or events that have made a significant contribution to the broad patterns of local or regional history, or to the cultural heritage of Morgan Hill. Neither the Mid-century Ranch House nor the barn structure on the property possess distinctive characteristics. Based on the historic evaluation, the property does not meet the criteria for architectural/engineering importance because the utilitarian structures and buildings are not distinctive or artistic and do not show unique engineering. For these reasons, the Half Road Property is not eligible for listing under the California Register or the National Register. No historic resources are identified on adjacent or surrounding properties.

Archaeological Resources

Prehistoric Background

Cultural/archaeological resources are traces of human occupation and activity. In Northern California, human occupation extends back to at least 9,000-11,500 years with Native American occupation and use of the Bay Area extending over 5,000-8,000 years and possibly longer. The Aboriginal inhabitants of the Santa Clara Valley include a group known as the Costanoans who occupied the central California coast as far east as the Diablo Range. The descendants of these Native Americans are referred to as Ohlone. The project site appears to have been within the *Mutsun* tribelet/group territory.

Prehistoric site types in the 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 features sites, and trails.[30]

[30] Basin Research and Associates. *Archaeological Resources Assessment Report – Morgan Hill Technology and Mixed-Use Residential Project.* June 2019.

Prehistoric and Historic Resources

According to the City's archaeological sensitivity map (2000), the 33-acre site is located in an area of archaeological sensitivity due to the past presence of three historic-era ranch locations in the site vicinity. The off-site sewer installation area, extending from Half Road to Condit Road, to East Main Avenue, is not located in an archaeologically sensitive area based on the archaeological sensitivity map. *Basin Research Associates* completed a records search in the California Historical Resource Information System (CHRIS) database, reviewed archival literature, and completed a field inspection (in May 2019) to determine the potential presence of historic-era archaeological resources at the 33-acre residential and DePaul Drive extension area and the Redwood Tech site immediately west of DePaul Drive (an 89-acre site). A records search was also completed for areas within one quarter mile of these sites. The lack of archaeological discoveries over the past 20 years suggests a low to moderate sensitivity for the project site for historic archaeological resources. Based on the 2019 field survey, the soils on the 33-acre site and Redwood Tech site consisted of yellowish brown to brown clay with sandstone, chert, and quartz pebbles and cobbles. No surface indications of prehistoric or significant historic cultural materials or culturally modified soils were observed during the survey completed for the proposed project. Three cultural resource reports on file with the CHRIS/NWIC include the project site or areas adjacent; all of the studies were negative for prehistoric archaeological resources. For the reasons described above, the project site is considered to have low to moderate sensitivity for prehistoric resources.

No known historic dwellings or other features have been identified in or adjacent to the project site. The closest known Hispanic-Era feature, El Camino Real/Monterey Road/US Route 101 ("Old Monterey Road") is located approximately one mile west of the site. No American Period archaeological sites have been recorded in or adjacent to the project site. The historic map review indicates that a single circa-1876 historic era structure owned by "S. Matthews" was located within the project site but was no longer present in 1901/1907.

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?

The proposed differences in storm drainage, size and depth of the underground retention basins, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for cultural resources impacts. Although the construction of the underground retention basins under Option 2 would result in deeper excavation (maximum depth would be nine feet below the ground surface) than Option 1 (four feet below the ground surface), mitigation measures

and the conclusions for cultural resources impacts would be the same for Project Options 1 and 2, as discussed in more detail below. The project would excavate to a maximum depth of 10 feet to access utilities during construction for both options.

4.5.2.1 *Project Impacts*

Impact CUL-1:	The project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. **(Less than Significant Impact)**

Pursuant to CEQA Guidelines Section 15064.5 (b)(1), a "substantial adverse change" in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. The vacant single-family house and ancillary barn structure were evaluated for potential eligibility for listing on local, state, and national historical registers and were found to not meet the criteria for eligibility.

The proposed project (under Options 1 and 2) would completely redevelop the 33-acre site, including the demolition of existing structures and the conversion of land use to residential uses. While the existing structures would be permanently removed, the structures (and associated properties) were not found to qualify as historical resources under the California Register or the National Register, nor at the local level for the City or County register. Based on Table 4.5-1 Historic Properties in Morgan Hill in the General Plan EIR, there are no historic structures located adjacent to the site. Therefore, the proposed project (under Options 1 and 2) would not result in a significant impact to historical resources. **(Less than Significant Impact)**

Impact CUL-2:	The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. **(Less than Significant Impact with Mitigation Incorporated)**

As discussed in Section 4.5.1.2 Existing Conditions, the 33-acre site is considered to have low to moderate sensitivity for prehistoric and historic archaeological resources. The off-site sanitary sewer installation area is not located in an archaeologically sensitive area. While the project site not known to contain an archaeological site or buried deposits, construction operations could result in the inadvertent exposure of buried prehistoric or historic archaeological materials that could be eligible for inclusion on the California Register and/or meet the definition of a unique archaeological resource as defined in Section 21083.2 of the Public Resources Code.

Impact CUL-2: Demolition and construction activities on the project site could unearth sensitive archaeological resources. **(Potentially Significant Impact)**

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-2.1: 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 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 (includes demolition and moving of heavy equipment on site) 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. 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 fifty 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.

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 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 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 Coroner 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 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.

(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-2.2: 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 Development Services Director or Director's designee prior to issuance of a grading permit or any building permit.

Implementation of the mitigation measures described above would reduce the proposed project's impact to archaeological resources (under Options 1 and 2) to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Impact CUL-3:	The project would not disturb any human remains, including those interred outside of dedicated cemeteries. **(Less than Significant Impact with Mitigation Incorporated)**

Although it is not expected, human remains could be discovered during construction of the project (under Options 1 and 2). Implementation of mitigation measures MM CUL-2.1 and MM CUL-2.2 described above would reduce the proposed project's impact on human remains discovered at the project site (under Options 1 and 2) to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

4.5.2.2 *Cumulative Impacts*

Impact CUL-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant cultural resources impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

The geographic area for cumulative cultural resources impacts is the 33-acre site, 0.1-acre sewer installation area, and adjacent parcels. The proposed project (under Options 1 and 2) has the potential to combine archaeological resources impacts with the adjacent Redwood Tech industrial project west of DePaul Drive. The cumulative projects may contain unknown historic and/or prehistoric archaeological resources. The proposed implementation of mitigation measure MM CUL-2.1, along with the Redwood Tech project's compliance with required Conditions of Approval, would reduce impacts to archaeological resources and human remains to less than significant levels. Neither the proposed development area or the Redwood Tech site contains historic resources and, therefore, the projects would not result a cumulative impact to historic resources. For these reasons, the cumulative projects 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/GHG Assessment completed by Illingworth & Rodkin, Inc. on April 6, 2021, and revised on May 12, 2022. A copy of this report is attached as Appendix B of this DEIR.

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 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.[31] Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.[32]

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.[33]

Local

City of Morgan Hill 2035 General Plan

Adopted July 27, 2016, 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 of Morgan Hill.[34] The following policies are applicable to the proposed project:

Policy 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.

Policy NRE-16.2: **Energy Conservation.** Promote energy conservation techniques and energy efficiency in building design, orientation, and construction.

[31] California Building Standards Commission. "California Building Standards Code." Accessed October 27, 2020. https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo.
[32] California Energy Commission (CEC). "2019 Building Energy Efficiency Standards." Accessed October 27, 2020. https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency.
[33] California Air Resources Board. "The Advanced Clean Cars Program." Accessed October 27, 2020. https://www.arb.ca.gov/msprog/acc/acc.htm.
[34] City of Morgan Hill. "Chapter 8 Natural Resources and Environment." *City of Morgan Hill 2035 General Plan*. Accessed September 20, 2021. https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId

Policy 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.

Policy 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.

Policy 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.

Policy NRE-16.7: **Renewable Energy.** Encourage new and existing development to incorporate renewable energy generating features, like solar panels and solar hot water heaters.

Policy 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.

Policy 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.

4.6.1.2 *Existing Conditions*

Total energy usage in California was approximately 6,956 trillion British thermal units (Btu) in the year 2020, the most recent year for which this data was available.[35] Out of the 50 states, California is ranked second in total energy consumption and 49th in energy consumption per capita. The breakdown by sector was approximately 21 percent (1,507.71 trillion Btu) for residential uses, 19.6 percent (1,358.31 trillion Btu) for commercial uses, 24.36 percent (1,701.21 trillion Btu) for industrial uses, and 34 percent (2,355.53 trillion Btu) for transportation.[36] This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

Electricity

Electricity in Santa Clara County in 2019 was consumed primarily by the commercial sector (76 percent), followed by the residential sector consuming 24 percent. In 2019, a total of approximately 16,664 gigawatt hours (GWh) of electricity was consumed in Santa Clara County.

[35] United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed January 28, 2021. https://www.eia.gov/state/?sid=CA#tabs-2.
[36] United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed January 28, 2021. https://www.eia.gov/state/?sid=CA#tabs-2.

The community-owned Silicon Valley Clean Energy (SVCE) is the electricity provider for the City of Morgan Hill.[37] 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. Both options are considered 100 percent GHG-emission free.

California's total system electric generation in 2019 was approximately 277,704 gigawatt-hours (GWh), which was down 2.7 percent from 2018's total generation of approximately 285,488 GWh. California's in-state electric generation increased by three percent to 200,475 GWh compared to approximately 194,842 GWh in 2018.[38] This increase was due to increased generation from in-state large hydroelectric power plants, up 50 percent (11,049 GWh) from 2018.

In 2019, natural gas represented the largest portion of the state's energy sources (at 43 percent). Solar, wind, and hydro generation accounted for more than 40 percent of all renewable electricity generation.[39]

Natural Gas

PG&E provides natural gas services within the City of Morgan Hill. In 2020, approximately two percent of California's natural gas supply came from in-state production, while the remaining supply was imported from other western states and Canada.[40] In 2020, California used 2,144 trillion Btu of natural gas. In 2020, Santa Clara County used less than one percent of the state's total consumption of natural gas.[41]

In 2019, California consumed approximately 2,214,342,831 million Btu (MMBtu) of natural gas; a slight decrease from 2018 when approximately 2,197,781,751 MMBtu were consumed.[42] Overall natural gas demand in California is anticipated to decrease slightly through 2028. This decline is due to on-site residential, commercial, and industrial electricity generation; aggressive energy efficiency programs; and a decrease in demand for electrical power generation as a result of state-mandated renewable portfolio standard (RPS) targets (as the state moves to power generation resources that result in less GHG emissions than natural gas).[43]

[37] Silicon Valley Clean Energy. "Frequently Asked Questions." Accessed January 28, 2021. https://www.svcleanenergy.org/faqs.
[38] CEC. "2019 Total System Electric Generation." Accessed March 31, 2021. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation.
[39] Ibid.
[40] California Gas and Electric Utilities. 2019 *California Gas Report.* Accessed January 28, 2021. https://www.socalgas.com/regulatory/documents/cgr/2019_CGR_Supplement_7-1-19.pdf.
[41] California Energy Commission. "Natural Gas Consumption by County." Accessed January 28, 2021. http://ecdms.energy.ca.gov/gasbycounty.aspx.
[42] EIA. "Natural Gas Delivered to Consumers in California." Accessed March 31, 2021. https://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SCA_a.htm.
[43] California Gas and Electric Utilities. 2017 Natural Gas Market Trends and Outlook. Accessed March 31, 2021. http://docketpublic.energy.ca.gov/PublicDocuments/17-IEPR-04/TN222400_20180131T074538_STAFF_FINAL_REPORT_2017_Natural_Gas_Market_Trends_and_Outlook.pdf.

Fuel for Motor Vehicles

In 2019, 15.4 billion gallons of gasoline were sold in California.[44] 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 24.9 mpg in 2019.[45] 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. [46,47]

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 supplies?

The proposed differences in storm drainage, size and depth of the underground retention basins, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for energy impacts in that they would have no effect on the project's operational energy usage. The three additional construction workdays required for the grading/excavation phase and 16 additional days that equipment such as excavators and graders are required would slightly increase energy use during construction. However, the conclusions for construction energy impacts would be the same for Project Options 1 and 2. The operational energy use (for the proposed residences) would be the same for Project Options 1 and 2.

[44] California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons." Accessed January 28, 2021. https://www.cdtfa.ca.gov/dataportal/dataset.htm?url=VehicleTaxableFuelDist.

[45] United States Environmental Protection Agency. "The 2018 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." March 2019.

[46] United States Department of Energy. *Energy Independence & Security Act of 2007.* Accessed February 18, 2021. http://www.afdc.energy.gov/laws/eisa.

[47] Public Law 110–140—December 19, 2007. *Energy Independence & Security Act of 2007.* Accessed February 18, 2021. http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf.

4.6.2.1 *Project Impacts*

Impact EN-1:	The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. **(Less than Significant Impact)**

The proposed project (under Options 1 and 2) would construct single-family residences, parking spaces, and private recreational areas including a clubhouse and swimming pool on a vacant site. The proposed project (under Options 1 and 2) would result in an 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 and natural gas) 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 (under Options 1 and 2).

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

Land Use	Electricity Use (kWh/yr)	Natural Gas Use (kBTU/yr)	Gasoline Consumption (gal/yr)
Single Family Housing	2,176,360	0	333,805
Total	2,176,360	0[1]	333,805

Source: Illingworth & Rodkin, Inc. *The Crosswinds at Morgan Hill Air Quality and Greenhouse Gas Assessment: CalEEMod Model.* May 12, 2022.

[1] No natural gas use is assumed for the proposed residential development based on the City's Reach Code.

Compared to existing conditions, the proposed project would substantially increase on-site electricity use. However, the project would be built in accordance with the 2019 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 vehicle miles traveled (VMT) for the project would be approximately 8,311,660.[48] Using the U.S. EPA fuel economy estimates (24.9 mpg) the proposed project would result in consumption of approximately 333,805 gallons of gasoline per year.[49] New automobiles purchased by future occupants of the proposed project would be subject to fuel economy and efficiency standards applied throughout

[48] Illingworth & Rodkin, Inc. *The Crosswinds at Morgan Hill Air Quality and Greenhouse Gas Assessment: CalEEMod Model.* May 12, 2022.

[49] 8,311,660 / 24.9 mpg = 333,802 gallons of gasoline

the State of California, 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 (under Options 1 and 2) would be built in four phases, starting in 2023 and ending by 2027. The project (under Options 1 and 2) would require 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 and 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 (under Options 1 and 2) would implement Standard Condition 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)**

Energy Efficiency During Project Operation

Operation of the project (under Options 1 and 2) 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.

The project (under Options 1 and 2) would not use energy or fuel in a wasteful manner, given the project features that reduce energy use, including the following:

- Solar-ready area for PV solar panels on the roof
- Low volatile organic compound (VOC) emission interior wall and ceiling paints
- Insulation with 30 percent post-consumer recycled content for walls and floors
- Energy Star General Electric (GE) appliances.
- High efficiency heating, ventilation, and air conditioning (HVAC) units.

- Drought-tolerant landscaping and low flow irrigation system.
- Bicycle storage for residents.
- Electric vehicle (EV) charging stations.

The project (under Options 1 and 2) would include landscaping comprised of large shade trees throughout the site. This will have the effect of providing shade and reducing the heat island effect of the project (under both project options), 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 (such as carpool programs) for the condominium units (refer to Section 4.17 Transportation). For all the reasons listed above, the proposed project (under both options) would have a less than significant impact. **(Less Than Significant Impact)**

Impact EN-2:	The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

Electricity for the proposed project (under Options 1 and 2) would be provided by Silicon Valley Clean Energy. SVCE sources the electricity and Pacific Gas and Electric Company 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)**

Impact EN-3:	The project would not result in a substantial increase in demand upon energy resources in relation to projected supplies. **(Less than Significant Impact)**

Electricity

As discussed previously, California's total system electric generation in 2019 was approximately 277,704 GWh (a decrease of 2.7 percent from 2018). 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.[50] The project (under Options 1 and 2) would construct energy efficient buildings in accordance with Title 24, CALGreen, and the City's Green Building Program.

[50] CEC. *2016 Integrated Energy Policy Report*. February 2017.

Electricity supply and demand data and reporting is provided at the state level. The project would result in a net increase of 2,176,360 (2.17 GWh) of electricity use on the sites, 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 (under both options) 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 natural gas infrastructure in new buildings.[51] 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)**

4.6.2.2 *Cumulative Impacts*

Impact EN-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant energy impact. **(Less than Significant Cumulative Impact)**

Cumulative projects in the City would result in an increase in energy use relative to existing development. The proposed project (under Options 1 and 2) 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 (under both options) would not result in a cumulatively considerable contribution to a significant energy impact. **(Less than Significant Cumulative Impact)**

[51] Exceptions to Ordinance No. 2306 prohibition of natural gas is if a project applicant can demonstrate that it is not physically feasible to construct the new buildings without natural gas infrastructure.

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 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.

City of Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts to due to geological conditions and seismicity.[52] The following policies related to geology and soils is applicable to the proposed project:

Policy 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.

Policy 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 types of uses least disruptive to the soil and vegetative cover.

4.7.1.2 *Existing Conditions*

Geology and Soils

The project site is located in the Santa Clara Valley, an alluvial basin, bounded by the Santa Cruz Mountains to the west, the Hamilton/Diablo Range to the east, and the San Francisco Bay to the north. The Santa Clara Valley was formed when sediments derived from the Santa Cruz Mountains and the Hamilton/Diablo Range were exposed by the continued tectonic uplift and regression of the inland sea that had previously inundated this area. Bedrock in this area is made up of the Franciscan Complex, a diverse group of igneous, sedimentary, and metamorphic rocks of Upper Jurassic to Cretaceous age (70-140 million years old). Overlaying the bedrock at substantial depths are marine and terrestrial sedimentary rocks of Tertiary and Quaternary age.

[52] City of Morgan Hill, California (2016). "Chapter 9, Safety, Services, and Infrastructure." *City of Morgan Hill General Plan 2035.* Accessed May 16, 2019. https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId=

Soils on the site and in the immediate project area consist of Arbuckle gravelly loam.[53] The shrink-swell potential of these soils ranges from low to high, respectively. The site is predominantly Arbuckle gravelly loam, which has a low shrink-swell potential. The shrinking and swelling is the result of the soil absorbing water in the winter and drying in the summer. The shrinking and swelling action can damage improperly designed and/or constructed building foundations and pavements.

The potential for erosion and landslides at the project site is low, due to the flat slope of the project site and surrounding area. The project site is not located within a landslide hazard zone.[54]

Seismicity

An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the project site. The degree of shaking is dependent on the magnitude of the event, the distance to its zone of rupture and local geologic conditions. According to the City of Morgan Hill Geotechnical Hazards maps and the County's Geologic Hazard Zones Map, the project site is not located in a fault rupture hazard zone.

The nearest active fault lines to the site include the San Andreas Fault, Hayward Fault Southeast Extension, and Calaveras Fault, which are located approximately 12 miles southwest, 11 miles north, and three miles northeast of the project site, respectively. Other faults near the project site include the Coyote Creek Fault (approximately two miles northeast of the project site), and the Silver Creek Fault (approximately 2.5 miles northeast of the project site).

Liquefaction

Soil liquefaction is a phenomenon in which saturated, cohesion-less soils undergo a temporary loss of strength during earthquake ground shaking. The liquefaction potential of valley floor terrain is estimated based on groundwater elevations in alluvial deposits within 50 feet of the ground surface.[55] The project site is not located within a liquefaction hazard zone.[56]

Paleontological Resources

Paleontological resources or fossils are the remains of prehistoric plant and animal life. Paleontological resources do not include human remains or artifacts. Fossil remains such as bones, teeth, shells, and wood are found in geologic formations. Paleontological resources are limited, non-renewable, sensitive scientific and educational resources. The potential for fossil remains at a location can be predicted based on whether or not previous fossil finds have been made in the

[53] United States Department of Agriculture, Natural Resources Conservation Service. *Custom Soil Resource Report for Half Road and Mission View Project*. October 27, 2020.
[54] County of Santa Clara. *County Geologic Hazard Zones Map 53*. October 26, 2012.
[55] Pacific Geotechnical Engineering, *Geology, Geologic, and Geotechnical Hazards, City of Morgan Hill*, December 1991.
[56] County of Santa Clara, *County Geologic Hazard Zones Map 53*, October 26, 2012.

vicinity, as well as based on the age of the geologic formations. Based on the findings in the General Plan EIR, no paleontological resources have been identified in the City of Morgan Hill.

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?

The proposed differences in storm drainage management, size and depth of the underground retention facilities, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for geology and soils impacts. Although the construction of the underground retention basins under Option 2 would result in deeper excavation (maximum depth would be nine feet below the ground surface) than Option 1 (four feet below the ground surface), mitigation measures, standard conditions, and the conclusions for geology and soils impacts would be the same for Project Options 1 and 2. The project under both options would excavate to a maximum depth of 10 feet to access utilities during construction for both options.

4.7.2.1 *Project Impacts*

Impact GEO-1:	The project would not 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**. (Less than Significant Impact)**

The likelihood that a fault rupture would occur at the project site is low; however, the site is located in a seismically active region and strong ground shaking will likely occur during the life of the project. The site is located in an area of relatively stable ground not likely to be involved in landsliding, faulting or other lateral displacement type ground failures. Based on the Santa Clara County Geologic Hazard Zones Map, the site is not located in a fault rupture, landslide, or liquefaction hazard zone.

Since the soils on the site are not susceptible to liquefaction and the site is not near a natural creek, the probability of lateral spreading occurring on-site is low. 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 (under Options 1 and 2) shall implement the following measures to reduce and/or avoid soil hazards. Implementation of the standard condition would ensure that impacts to the project from soil conditions and seismic hazards would be less than significant (under both project options).

Standard Condition GEO-1 (SC GEO-1): 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 2019 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 SC GEO-1, 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)**

Impact GEO-2:	The project would not result in substantial soil erosion or the loss of topsoil. **(Less than Significant Impact)**

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 City developed standard conditions to avoid significant soil erosion impacts during construction. The following conditions would be included as part of the project (under Options 1 and 2):

Standard Condition (SC GEO-2), Storm Drain System: 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.

Standard Condition (SC GEO-3), Storm Drain System: As required by the State Water Resources Control Board (SWRCB) Order No. 2009-0009DWQ, 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 standard conditions, the proposed project would result in a less than significant soil erosion impact (under Options 1 and 2). **(Less than Significant Impact)**

Impact GEO-3:	The project would not 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. **(Less than Significant Impact)**

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. As discussed in Impact GEO-1, the proposed project (under Project Options 1 and 2) would be constructed in compliance with the CBC and development of the project site would not change or exacerbate the geologic conditions of the project area and would not result in a significant geology hazards impact. **(Less than Significant Impact)**

Impact GEO-4:	The project would not be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property. **(Less than Significant Impact)**

Soils on the project site have a moderate expansion potential. Expansive soil conditions could damage future development and improvements proposed under the project, which would represent a significant impact (unless substantial damage is avoided by incorporating appropriate engineering into the grading and foundation design of proposed buildings). The project shall (under Options 1 and 2) implement Standard Condition GEO-1 (see Impact GEO-1) to reduce and/or avoid soil hazards. Implementation of the standard measure would ensure that impacts to the project from soil conditions and seismic hazards would be less than significant. **(Less than Significant Impact)**

Impact GEO-5:	The project would not 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. **(No Impact)**

The proposed project will be connected to a City sewer system for waste-water disposal and will not require septic tanks or alternative waste-water disposal systems. For this reason, the project (under Options 1 and 2) will not have a significant impact due inadequate waste-water disposal stemming from incapable soils. **(No Impact)**

Impact GEO-6:	The project would not directly or indirectly destroy a unique paleontological resource or site or unique geological feature. **(Less than Significant Impact with Mitigation Incorporated)**

No paleontological resources have been identified in the City of Morgan Hill. The proposed project (under Options 1 and 2) would excavate to a maximum depth of approximately 10 feet to install necessary utility infrastructure. 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 (under Options 1 and 2) would implement the following mitigation measure.

Mitigation Measures: The following mitigation measure would be implemented to reduce impacts to paleontological resources to a less than significant level:

MM GEO-6.1: 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 (under Options 1 and 2) would result in a less than significant impact to paleontological resources. **(Less than Significant Impact with Mitigation Incorporated)**

4.7.2.2 *Cumulative Impacts*

Impact GEO-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant geology and soils impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative geology and soils impacts would be the project site and the Redwood Tech project immediately west of the site. Both cumulative projects occurring within the City of Morgan Hill would implement standard conditions 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 cumulative projects, would not result in significant cumulative geology and soils impacts. **(Less than Significant Cumulative Impact)**

4.8 GREENHOUSE GAS EMISSIONS

The following discussion is based upon an Air Quality and Greenhouse Gas Assessment prepared by Illingworth & Rodkin, Inc. on April 6, 2021, and revised on May 12, 2022. A copy of this report is attached as Appendix B of this DEIR.

As shown in Table 2.2-1, NOP comments on the subject of greenhouse gases (GHGs) were received from the BAAQMD and from owners of adjacent property, Mariani Family Properties (1615 Half Road). The BAAQMD comments addressed the need for GHG impact analysis, and consistency with state and local regulatory plans. Refer to responses to checklist questions 1 and 2. The Mariani Family Properties letter states that the proposed project and neighboring properties are within short commuting distance of Morgan Hill job centers and requests a discussion of how shorter vehicle commutes could contribute to reduced GHG emissions.

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 350 and Senate Bill 100 – Renewable Portfolio Standards

In September 2015, the California Legislature passed SB 350, which increased the state's Renewable Portfolio Standards (RPS) for content of electrical generation from the 33 percent target for 2020, to 50 percent renewables target by 2030.

In September 2018, SB 100 was signed into law, revising California's RPS program goals, furthering California's focus on using renewable energy and carbon-free power sources for its energy needs. SB 100 would require all California utilities to supply a specific percentage of retail sales from renewable resources by certain target years. The revised bill requires that the total kilowatt hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. By December 31, 2045, all California utilities would be required to supply retail electricity that is 100 percent carbon-free and sourced from eligible renewable energy resource to all California end-use customers.

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 2040. Plan Bay Area 2040 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.

City of Morgan Hill Climate Action Plan

On December 15th, 2021, the Morgan Hill City Council adopted a Climate Action Plan (CAP). The CAP was developed with a focus on reducing greenhouse gas emissions in the transportation and building sectors. The CAP's goals include the use of electric vehicles and decarbonizing existing buildings by reducing the use of fossil fuels. The CAP goal is to transition 95 percent of existing buildings in Morgan Hill to all-electric by 2045, with incremental targets every five years. The CAP also proposes to prohibit any new gas stations. Although the CAP establishes citywide GHG reduction goals, the CAP does not meet the criteria of a qualified GHG reduction plan listed in the CEQA Guidelines Section 15183.5. Therefore, future projects cannot tier from the CAP analysis under CEQA.

City of Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to reduce greenhouse gas emissions from planned developments within the City of Morgan Hill.[57] The following policies are applicable to the proposed project:

Policy 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 Orders 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 gas emissions.

Policy NRE-15.2: **Linking Land Use and Transportation**. Encourage land use and transportation patterns that reduce dependence on automobiles.

Policy NRE-15.4: **Sustainable Land Use.** Promote land use patterns that reduce the number and length of motor vehicle trips.

Policy NRE-15.5: **Jobs Housing Balance.** To the extent feasible, encourage a balance and match between jobs and housing.

Policy NRE-15.9: **Urban Forest.** Support development and maintenance of a healthy, vibrant urban forest through outreach, incentives, and strategic leadership.

Policy 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.

Policy NRE-15.11: **Green Building**. Promote green building practices in new development.

Policy 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.

Policy NRE-16.2: **Energy Conservation.** Promote energy conservation techniques and energy efficiency in building design, orientation, and construction.

Policy 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.

[57] City of Morgan Hill. *City of Morgan Hill 2035 General Plan.* Adopted July 27, 2016. Accessed February 12, 2020. https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId.

Policy 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.

Policy 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.

Policy NRE-16.7: **Renewable Energy.** Encourage new and existing development to incorporate renewable energy generating features, like solar panels and solar hot water heaters.

Policy 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.

Policy 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.

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.

In its existing state, the project site contributes minimally to the City's GHG emissions. Emissions are primarily generated by vehicle travel to and from the site, emissions related to irrigation, and operation of agricultural equipment.

Post 2020-Impact Thresholds

As described previously, BAAQMD adopted GHG emissions thresholds of significance to assist in the review of projects under CEQA. These thresholds were designed to establish the level at which BAAQMD has determined that GHG emissions would cause significant environmental impacts. The GHG emissions thresholds identified by BAAQMD for 2020 are 1,100 metric tons (MT) of CO_2e per year or 4.6 MT CO_2e per service population per year.

The numeric thresholds set by BAAQMD were calculated to achieve the state's 2020 target for GHG emissions levels (and not the SB 32 specified 2030 target of 40 percent below the 1990 GHG emissions level). The project would be constructed in four phases beginning 2023 and lasting about

three years and five months. The project, therefore, would be subject to the state's 2030 GHG reduction goals.

CARB has completed a Scoping Plan to achieve SB 32 GHG reduction targets, which would be utilized by BAAQMD to establish the 2030 GHG efficiency threshold. BAAQMD has yet to publish a quantified GHG efficiency threshold for 2030. In lieu of an updated efficiency threshold from BAAQMD, a Substantial Progress efficiency threshold of 2.8 MT CO_2e/service population/year threshold, which is a 40 percent reduction from the BAAQMD 2020 service population emissions target of 4.6 MT CO_2e /service population/year, is utilized in this EIR. An adjusted bright-line threshold of 660 MTCO_2e/year, which is 40 percent below BAAQMD 2020 bright-line threshold of 1,100 MT CO_2e, is also used.[58] The efficiency and adjusted bright-line thresholds were calculated based on the GHG reduction goas of SB 32 and EO B-30-15 for 2030.[59]

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?

The proposed differences in storm drainage, size and depth of the underground retention basins, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for greenhouse gas (GHG) impacts in that operational emissions would be the same for both options. Given the minimal number of additional construction workdays required for the Option 2 grading/excavation phase (three additional days than Option 1), there is no measurable increase in annual construction GHG emissions. The changes in construction usage would not affect construction emissions. Therefore, the construction emissions for Options 1 and 2 would be the same.

[58] The 2020 BAAQMD bright-line threshold of 1,100 MT CO_2e was established by BAAQMD to help the state reduce GHG emissions to 1990 levels by 2020. 1,100 MT CO_2e – (1,100 MT CO_2e * 0.4) = 660 MT CO_2e is the 2030 bright-line threshold calculated for projects constructed and operational post-2020 and pre-2031.
[59] Personal Communications: Reyff, James, Illingworth & Rodkin, Inc. (air quality consultant). March 4, 2020.

4.8.2.1 *Project Impacts*

Impact GHG-1:	The project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less than Significant Impact with Mitigation Incorporated)**

GHG emissions associated with development of the proposed project (under Options 1 and 2) 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.

Service Population Emissions

The project service population efficiency rate is based on the number of future residents (under either project option). For this project, the number of future residents was estimated by multiplying the total number of units (i.e., 269 units) by the average persons per household rate for the City of Morgan Hill found in the California Department of Finance Population and Housing Estimate report.[60] Using the 3.11-person per household rate, the number of future residents was estimated to be 837 residents.[61] This total service population was used to calculate the per capita emissions.

Construction Emissions

GHG emissions associated with construction were computed to be 465 MT of CO_2e for the total construction period, or construction of the proposed residences, De Paul Drive extension, and off-site sewer line installation, and would occur over a several 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

[60] State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2010-2019*. Sacramento, California. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

[61] The estimated average household size for 2020 is 3.14 persons per household which would result in 845 residents. The 837 residents used to calculate the service population GHG emissions would provide a conservative analysis.
State of California, Department of Finance, *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2010-2019*. Sacramento, California. Available at: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

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, the annual emissions resulting from occupancy of the new dwelling units of the proposed project are predicted to be 2,784 MT of CO_2e in 2026 and 2,292 MT of CO_2e in 2030. The service population emission for the year 2026 and 2030 are predicted to be 3.33 and 3.05 MT/CO_{2e}/year/service population, respectively.

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. [62] The 2030 bright-line threshold is a 40 percent reduction of the 2020 1,100 MT CO_{2e}/year threshold.

Table 4.8-1: Annual Project GHG Emissions (CO_2e) in Metric Tons and Per Capita

Source Category	Proposed Project in 2026	Proposed Project in 2030
Area	3	3
Energy Consumption	23	23
Mobile	2,577	2,341
Solid Waste Generation	171	171
Water Usage	10	10
Total (MT CO_{2e}/year)	**2,784**	**2,292**
Significance Threshold	***660 MT CO2e/year***	***660 MT CO_2e/year***
Service Population Emissions (MT CO_{2e}/year/service population)	3.33	3.05
Significance Threshold	***3.52[a] in 2026***	***2.8 in 2030***
Exceeds both thresholds?	*No*	*Yes*
Emissions over threshold (MT CO_2e/year)		**206 MT**

[a] The interim 2026 3.52 MT CO_2e/year efficiency threshold = [4.6 MT CO_2e/service population/year (2020 threshold) – 2.8 MT CO_2e /service population year]/10 years = 0.18 *6 = 3.52 MT CO_2e /service population

To be considered an exceedance, a 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. The project (under Options 1 and 2) 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 brightline and service population GHG emissions target for 2030, which would result in a significant GHG impact.

[62] Bay Area Air Quality Management District, 2016. *CLE International 12th Annual Super-Conference CEQA Guidelines, Case Law and Policy Update*. December.

Mitigation Measures: The following mitigation measures would be implemented by the project to reduce its GHG emissions to below the per capita threshold by its earliest operable year:

MM GHG-1.1: The project applicant shall develop a GHG reduction plan to reduce GHG emissions in the build-out year by 206 MT/year prior to issuance of a grading permit and to the satisfaction of the City's Development Services Director or Director's designee. These reductions shall be kept in place by the project until the City adopts a qualified GHG reduction plan (consistent with CEQA Guidelines Section 15183.5) that contains goals and associated strategy to decrease emissions in a manner consistent with meeting the State's interim 2030 GHG emissions reduction target of 40 percent below 1990 levels.

MM GHG-1.2: A combination of the GHG reduction elements listed below would reduce project GHG impacts. The project applicant shall implement some or all of the following elements to further reduce GHG emission from operation of the project and the service population efficiency metric such that the metric would be below the significance threshold. The GHG reduction elements to be included within the project shall be verified prior to the issuance of a building permit and shall be to the satisfaction of the City's Development Services Director or Director's designee.

- Prior to issuance of any building permits, the project applicant shall submit a Transportation Demand Management (TDM) Plan, which would include measures to reduce vehicle miles traveled (VMT) and GHG emissions, to the City's Development Services Director or Director's designee.
- The TDM Plan shall be implemented by the Homeowners Association (HOA) once the proposed residences are occupied.
  ;
- The project applicant shall install solar power systems or other renewable electric generating systems that provide electricity to power on-site equipment and possibly provide excess electric power;
- The project applicant shall provide infrastructure for electric vehicle charging for residential units (i.e., provide 220 VAC power); and,
- The project applicant shall increase water conservation above state average conditions for residential uses by installing low flow water utilities and irrigation.

MM GHG-1.3: The project applicant shall purchase verifiable carbon emission offsets through a verified registry for remaining amount of GHG reduction required, after exhausting on-site reduction options prior to issuance of a building permit. Offsets shall be determined by calculating the total estimated

number of GHG emissions the project would create over a 30-year period, and purchasing verifiable offsets based on the calculated number of GHG emissions.

Some of the measures involve project features or operational measures (under Options 1 and 2) that would serve to reduce project emissions. However, it may not be possible to accomplish the required reduction 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 (under either project option) and is recognized by BAAQMD and CARB. Because the project (under both options) would be required to purchase whatever remaining amount of GHG reduction was required, after exhausting on-site reduction options, the project's GHG emissions (under Options 1 and 2) would be reduced to a level below the applicable 2030 target. Therefore, implementation of a GHG reduction plan, as set forth in the mitigation measures above, would reduce the project's GHG emissions impact to a less than significant level (under Options 1 and 2). **(Less than Significant Impact with Mitigation Incorporated)**

Impact GHG-2:	The project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. **(Less than Significant Impact)**

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). For example, 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 through MM GHG-3, the proposed project's operational GHG emissions would fall below the efficiency metric of 2.8 MT CO_2e/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. Therefore, the project would be consistent with state and local plans and policies pertaining to GHG emission reductions. **(Less than Significant Impact)**

4.8.2.2 *Cumulative Impacts*

Impact GHG-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant GHG emissions impact. **(Less than Significant Cumulative 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 measures MM GHG-1 through MM GHG-3, 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)**

4.9 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based upon a Phase I Environmental Site Assessment prepared by APEX Companies, LLC. in July of 2019. A copy of this report is attached as Appendix E of this DEIR.

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

Federal Aviation Regulations Part 77

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.

Comprehensive Environmental Response, Compensation, and Liability Act

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.[63]

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 authority for the EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank (UST) program.[64]

[63] United States Environmental Protection Agency. "Superfund: CERCLA Overview." Accessed May 11, 2020. https://www.epa.gov/superfund/superfund-cercla-overview.
[64] 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.

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).[65]

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.

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.

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

Municipal Regional Permit Provision C.12.f

Polychlorinated biphenyls (PCBs) were produced in the United States between 1955 and 1978 and used in hundreds of industrial and commercial applications, including building and structure materials such as plasticizers, paints, sealants, caulk, and wood floor finishes. In 1979, the EPA banned the production and use of PCBs due to their potential harmful health effects and

[65] California Environmental Protection Agency. "Cortese List Data Resources." Accessed April 19, 2021. https://calepa.ca.gov/sitecleanup/corteselist/.

persistence in the environment. PCBs can still be released to the environment today during demolition of buildings that contain legacy caulks, sealants, or other PCB-containing materials.

With the adoption of the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) by the San Francisco Bay Regional Water Quality Control Board on November 19, 2015, Provision C.12.f requires that permittees develop an assessment methodology for applicable structures planned for demolition to ensure PCBs do not enter municipal storm drain systems.[66] Municipalities throughout the Bay Area are currently modifying demolition permit processes and implementing PCB screening protocols to comply with Provision C.12.f. Buildings constructed between 1950 and 1980 that are proposed for demolition must be screened for the presence of PCBs prior to the issuance of a demolition permit. Single family homes and wood-frame structures are exempt from these requirements.

Local

City of Morgan Hill 2035 General Plan

The following policy to reduce the effects of hazardous materials are applicable to the proposed project:

Policy SSI-4.16: **Contaminated Site Mitigation**. Require new or expanding development projects in areas contaminated from previous discharges to mitigate their environmental effects.

4.9.1.2 *Existing Conditions*

On-Site Uses and Conditions

Historic and Current Uses of the Site

The 33-acre site was used as agricultural land since 1939. The existing residence and barn structure on the western portion of the project site were constructed in 1957. The site was occupied by an orchard until 2019. The residence and barn structure remain on-site and have been vacant for several years. Based on a June 2019 site reconnaissance, a water well and septic system are currently located near the residence on-site.

On-Site Environmental Conditions

Previous Investigations

Given the site was used for agricultural purposes, a Phase II Environmental Site Assessment (Phase II ESA), based on recommendations from the Phase I ESA completed for the site and property to west in June 2018, was completed to determine if shallow soils had been impacted by

[66] California Regional Water Quality Control Board. *San Francisco Bay Region Municipal Regional Stormwater NPDES Permit.* November 2015.

organochlorine pesticides, arsenic, and lead in September 2018. The results showed organochlorine pesticides such as chlordane, p,p-DDD, p,p-DDE, and p,p-DDT, were detected below the regulatory environmental screening levels (ESLs). Arsenic was detected at concentrations below background levels. Therefore, the presence of organochlorine pesticides and arsenic on-site is not a recognized environmental condition.

Lead was detected in three samples (SS-R-16A, SS-R-16D, and SS-R-17B) above the residential ESL. Therefore, in October 2018, additional sampling for lead was completed around the residence and ancillary barn structure. Thirty-four (34) samples between zero to 2.5 feet below the ground surface in areas previously found to contain lead (at locations in the vicinity of SS-R-16A, SS-R-16D, and SS-R-17B). All of the soil samples were analyzed for lead using EPA Method 6020B and two soil samples were analyzed for Soluble Threshold Limit Concentration (STLC) lead analysis using EPA Method 6020B. Out of the 34 soil samples, 11 were detected above the residential ESL for lead. Additionally, the samples analyzed for STLC found soluble lead to be above the hazardous waste criteria. Since the lead-impacted soil remains on-site, this is considered a recognized environmental condition.

Hazardous Building Materials

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

Vapor Encroachment

A vapor encroachment screening was completed as a part of the Phase I ESA, in accordance with American Society for Testing and Materials (ASTM) standards. The goal of the screening was to identify if a vapor encroachment condition (VEC) occurred on-site due to an off-site release of petroleum hydrocarbons from the St. Louise Hospital and Health Center/ De Paul Medical Center property (refer to Table 4.9-1). A VEC is defined as the presence or likely presence of chemicals of concern in the sub-surface of the property, caused by the release of vapors from contaminated soil or groundwater. Based on the screening, a VEC does not exist at the project site.

Regulatory Database Review

A regulatory database search was completed to determine whether the project site was listed as a hazardous materials site/ environmental concern. This included federal and state environmental regulatory listings. The project site was not identified in the databases reviewed.

Surrounding Land Uses

The properties surrounding the 33-acre site were developed as agricultural land by at least 1939. Residences were developed on the south and southwest adjacent properties by 1968. By 1998, the residences on the adjacent property to the southwest of the site were demolished and the north adjacent property was no longer in agricultural use. The existing residences on the northeast properties (east of Mission View Drive) property were developed by 2016. The property to the west of the 33-acre site is an open area and is no longer used for agricultural purposes.

Off-Site Environmental Conditions

A regulatory database search for properties within one mile that could be a potential environmental concern for the site was completed. The database information reviewed did indicate the presence of facilities within ASTM-recommended search distances of the project site. Most of the sites did not present an environmental concern to the project site because they had an operating permit that did not indicate there was a release, required no further action, or were too distant and/or topographically downgradient or cross-gradient relative to the project site to reasonably affect it. There were two off-site properties (given their proximity to the site) evaluated in the Phase I ESA to determine if the properties were a potential concern.

Table 4.9-1: Off-Site-Properties on Regulatory Listings

Facility	Database	Orientation from Project Site	Environmental Concern?
St. Louise Hospital and Health Center/ De Paul Medical Center 18500 St. Louise Drive	Delisted TNK, RCRA SQG, UST, CERS Tank, Santa Clara CUPA, RCRA NonGen	Approximately 305 feet north, upgradient	The property is not an environmental concern since there is no evidence of a release.
Mariani Orchards 1615 Half Road	RCRA NonGen	Approximately 900 feet northeast, cross-gradient	The property is not an environmental concern since there is no evidence of a release.

The properties listed in Table 4.9-1 are not considered an environmental concern since there is no indication of a chemical release at the properties.

Wildland Fires

The project site is not located within an identified Very High Fire Hazard Severity Zone in a State Responsibility Area (SRA) or a Local Responsibility (LRA).[67,68] The project site is not adjacent to any wildlands that could present a fire hazard.

Airport Hazards

The proposed project is located approximately 4.9 miles northwest of the San Martin Airport. The project site is not exposed to any airport hazards due to its distance from the San Martin Airport.

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:

[67] CAL FIRE. *Santa Clara County Fire Hazard Safety Zone Map – State Responsibility Area*. November 2007.
[68] CAL FIRE. *Santa Clara County Fire Hazard Safety Zone Map – Local Responsibility Area.* October 2008.

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?

The proposed differences in storm drainage, size and depth of the underground retention basins, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for hazards and hazardous materials impacts. Although the construction of the underground retention basins under Option 2 would result in deeper excavation (maximum depth would be nine feet below the ground surface) than Option 1 (four feet below the ground surface), mitigation measures standard conditions and the conclusions for hazards and hazardous materials impacts would be the same for Project Options 1 and 2. The project under both options would excavate to a maximum depth of 10 feet to access utilities during construction for both options.

4.9.2.1 *Project Impacts*

Impact HAZ-1:	The project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. **(Less than Significant Impact)**

The project proposes to develop a total of 269 new residential units (under Options 1 and 2). 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.

No long-term release of hazardous materials into the environment would occur as a result of project implementation. Project construction would require the temporary use of heavy equipment. Construction would also 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 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 (under Options 1 and 2). 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 the site, under the proposed project (under both options), would not result in a significant impact. **(Less than Significant Impact)**

Impact HAZ-2:	The project would 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. **(Less than Significant Impact with Mitigation Incorporated)**

Contaminated Soils

The 33-acre site contains lead-impacted soils in the vicinity of the existing and former residential structures. Lead in soils can impact the health of construction workers and adjacent uses when soil disturbance occurs. In addition, low concentrations of agricultural chemicals, including OCPs and arsenic, are present on the site. These chemicals can pose a health hazard to construction workers and adjacent uses when disturbed. Adverse effects to human health and/or the environment would constitute a significant impact.

Soils on the 33-acre site contain levels of elevated lead and agricultural chemicals (above regulatory screening levels) that could be released to the environment during project construction and 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 disturbance of soils containing lead and agricultural chemicals:

MM HAZ-2.1: Since lead-impacted soils are determined to be present in concentrations above established regulatory environmental screening levels, the project applicant shall enter into the Santa Clara County Department of Environmental Health's (SCCDEH) Voluntary Cleanup Program (VCP), or equivalent, to formalize regulatory oversight of the mitigation of contaminated soil to ensure the site is safe for construction workers and the public after development. The project applicant responsible for the contaminated area of the site shall remove contaminated soil to levels acceptable to the SCCDEH (or equivalent oversight agency) for residential exposure prior to issuance of any grading permits.

MM HAZ-2.2: A Removal Action Plan, Soil Mitigation Plan or other similarly titled report describing the remediation shall be prepared and implemented to document the removal and /or capping of contaminated soil. Prior to issuance of any grading permits, a copy of any reports prepared shall be submitted to the

Development Services Director or Director's designee. All work and reports produced shall be performed under the regulatory oversight and approval of the SCCDEH (or equivalent oversight agency).

MM HAZ-2.3: The project applicant shall prepare a Site Management Plan (SMP) prior to issuance of any grading permits to reduce or eliminate exposure risk to human health and the environment, specifically, potential risks associated with the presence of organochlorine pesticides and pesticide-based metals. The SMP shall include, but is not limited to, the following elements to mitigate potential risks associated with environmental conditions:

- Procedures for transporting and disposing the waste material generated during removal activities, if such transport and disposal is necessary;
- Procedures for stockpiling soil on-site if such stockpiling is necessary;
- Provisions for collecting soil samples to prior to grading activities;
- Provisions for confirmation soil sampling as appropriate to obtain a "No Further Action" letter (or equivalent) from the state and/or local agency assuming oversight for the site;
- Procedures to ensure that fill and cap materials are verified as clean truck routes;
- Staging and loading procedures and record keeping requirement.

The SMP shall reference the Storm Water Pollution Prevention Plan (SWPPP) required for the project in accordance with the Construction General Permit Order issued by the California State Water Resources Control Board. The SMP shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH), or equivalent regulatory agency, for review and approval. Copies of the approved SMP shall be provided to the City's Development Services Department prior to issuance of any grading permits.

MM HAZ-2.4: All contractors and subcontractors at the project site shall develop a health and safety plan (HSP) specific to their scope of work and based upon the known environmental conditions for the site. The HSP shall be implemented under the direction of a Site Safety and Health Officer. The HSP shall include, but not limited to, the following elements, as applicable:

- Provisions for personal protection and monitoring exposure to construction workers;
- Procedures to be undertaken in the event that contamination is identified above action levels or previously unknown contamination is discovered;
- Procedures for the safe storage, stockpiling, and disposal of contaminated soils;

- Provisions for the on-site management and/or treatment of contaminated groundwater during extraction or dewatering activities;
- Emergency procedures and responsible personnel.

The HSP shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH), or equivalent regulatory agency, for review and approval. Copies of the approved HSP shall be provided to the City's Development Services Department prior to issuance of any grading permits.

MM HAZ-2.5: Prior to issuance of any grading permits, the project applicant shall excavate lead-impacted soils identified at sample locations SS-R-16A, SS-R-16D, and SS-R-17B (near the single-family residence and barn structure) to a depth of at least 2.5 below the ground. The soil shall be properly disposed of in accordance with state and SCCDEH and California Code of Regulations, Title 8 waste disposal requirements. The SCCDEH (or equivalent oversight agency) may also approve leaving in-place some of the contaminated soil if the contaminated soil will be buried under hardscape and/or several feet of clean soil and not at risk of being encountered by future site users or nearby residents.

The implementation of mitigation measures MM HAZ-2.1 through MM HAZ-2.5 would ensure that hazardous conditions on-site would not create a significant hazard to the public (e.g., nearby residences and construction workers) or the environment. **(Less Than Significant Impact with Mitigation Incorporated)**

Asbestos-Containing Materials and Lead-Based Paint

The residential and barn structures on-site were constructed prior to 1978 and is likely have materials that include asbestos-containing materials (ACMs) and/or lead-based paint. The project (under Options 1 and 2) proposes to demolish the existing buildings, which could release asbestos particles and expose construction workers and nearby residents to harmful levels of asbestos. This would constitute a significant impact. As a result, an asbestos survey must be conducted under the National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines. The project (under Options 1 and 2) would be required to remove all potentially friable ACMs prior to building demolition that may disturb the ACMs.

If lead-based paint is still bonded to the building materials, its removal is not required prior to demolition. The project would be required to follow the requirements outlined by Cal/OSHA Lead in Construction Standard, Title 8, California Code of Regulation (CCR) 1532.1 during demolition activities; these requirements include employee training, employee air monitoring, and dust control. If lead-based paint is peeling, flaking, or blistered, it would be removed prior to demolition. It is assumed that such paint would become separated from the building components during demolition activities and must be managed and disposed of as a separate waste stream. Any debris

or soil containing lead paint or coating must be disposed of at landfills that are permitted to accept such waste.

Demolition of the existing buildings on site could expose construction workers and nearby residents to asbestos or lead. The project (under both options) would conform with the following regulatory programs and implement the mitigation measures to reduce impacts due to potential ACMs and lead-based paint:

Mitigation Measures: The following mitigation measures shall be implemented by the Project Options 1 and 2 to reduce impacts resulting from disturbance of lead-based paint or ACMs.

MM HAZ-2.6: 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 Department 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 CCR 1529 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. The following measures shall be included in the work plan:

- During demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Title 8, California Code of Regulations (CCR), Section 1532.1, including employee training, employee air monitoring, and dust control. Any debris or soil containing lead-based paint or coatings shall be disposed of at landfills that meet acceptance criteria for the type of lead being disposed.
- All potentially friable asbestos containing materials (ACMs) shall be removed in accordance with National Emission Standards for Air Pollution (NESHAP) guidelines prior to demolition or renovation activities that may disturb ACMs. All demolition activities shall be undertaken in accordance with Cal/OSHA standards contained in

Title 8, CCR, Section 1529, to protect workers from asbestos exposure.

- A registered asbestos abatement contractor shall be retained to remove and dispose of ACMs identified in the asbestos survey performed for the site in accordance with the standards stated above.
- Materials containing more than one-percent asbestos are also subject to Bay Area Air Quality Management District (BAAQMD) regulations. Removal of materials containing more than one-percent asbestos shall be completed in accordance with BAAQMD requirements and notifications.
- Based on Cal/OSHA rules and regulations, the following conditions are required to limit impacts to construction workers.
- Prior to commencement of demolition activities, a building survey, including sampling and testing, shall be completed to identify and quantify building materials containing lead-based paint.
- During demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Construction Standard, Title 8, CCR, Section 1532.1, including employee training, employee air monitoring and dust control.
- Any debris or soil containing lead-based paint or coatings shall be disposed of at landfills that meet acceptance criteria for the type of waste being disposed.

Conformance with regulatory requirements and the mitigation measure MM HAZ-2.6 above would ensure that ACMs and lead on-site would not create a significant hazard to the public (e.g., nearby residences and construction workers) or the environment. **(Less than Significant Impact with Mitigation Incorporated)**

Water Well and Septic System

One water well and septic system was located on-site during a site reconnaissance. The water supply well and septic systems on the site will be abandoned. Improper abandonment of the well and septic system could lead to a recognized environmental condition by potentially exposing construction workers, neighboring uses, and the environment to hazardous materials.

Mitigation Measures: The project would implement the following mitigation measure to destroy the water well and septic system on-site.

MM HAZ-2.7: 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 the wells are identified, or subsequently encountered during

earthwork activities, 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-2.7, 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. Therefore, the abandonment of the well and septic system is not considered a recognized environmental condition. **(Less than Significant Impact with Mitigation Incorporated)**

Impact HAZ-3:	The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. **(Less than Significant Impact)**

The closest school to the project site is Live Oak High School, located approximately 450 feet northeast of the 33-acre site and 0.2 miles northeast of the sanitary sewer line installation area. With implementation of mitigation measures MM HAZ-2.1 through MM HAZ-2.7, the project (under Options 1 and 2) would not emit hazardous emissions or handle hazardous materials/substances within one-quarter mile of a school. **(Less than Significant Impact)**

Impact HAZ-4:	The project would not 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, create a significant hazard to the public or the environment. **(No Impact)**

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 through MM HAZ-2.6. **(No Impact)**

Impact HAZ-5:	The project would not be 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. The project would not result in a safety hazard or excessive noise for people residing or working in the project area. **(No Impact)**

The project site is located approximately five miles north of 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 (under Options 1 and 2) would not result in an airport safety hazard. **(No Impact)**

Impact HAZ-6:	The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **(No Impact)**

The project (under Options 1 and 2) would be constructed in accordance with current building and fire codes to ensure structural stability and safety. In addition, the Morgan Hill Fire Department would review the site development plans to ensure fire protection design features are incorporated and adequate emergency access is provided. For these reasons, the operations of the proposed project would not interfere with the City-adopted Emergency Operations Plan or any adopted statewide emergency response or evacuation plans.[69] **(No Impact)**

Impact HAZ-7:	The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. **(No Impact)**

As mentioned in *Section 4.9.1.2 Existing Conditions*, the project site is not located within a designated Very High Fire Hazard Severity Zone. The proposed project (under Options 1 and 2) is an infill development and would not be located adjacent to any wildlands that could expose people or structures to wildfire risks. **(No Impact)**

4.9.2.2 *Cumulative Impacts*

Impact HAZ-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant hazards and hazardous materials impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

The geographic area for cumulative hazards and hazardous materials is the project site and adjacent parcels. With the implementation mitigation measures MM HAZ-2.1 through MM HAZ-2.5, lead contamination at the site would not affect off-site properties such as the Redwood Tech site west of the Crosswinds Residential site. Based on a Limited Phase II Agricultural Investigation completed by AEI in 2018 for the Draft EIR circulated for a previously proposed (but withdrawn) project at the adjacent Redwood Tech site, no soil samples for lead exceeded the residential ESLs. Therefore, the combined impacts of lead contamination would be less than significant.

The Redwood Tech property does not contain any structures and, therefore, no cumulative impacts related to ACMs and lead-based paint would result from the proposed Crosswinds Residential and Redwood Tech projects. The Crosswinds Residential project would be required to implement mitigation measures that require the preparation of a SMP and HSP. The Redwood Tech project would implement a dust, noise, vibration, and materials management plan that would reduce potential impacts related to hazardous materials. Both projects would comply with applicable

[69] City of Morgan Hill, Office of Emergency Services. *Emergency Operations Plan*. Revision 2.0. January 11, 2018.

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.

The project (under Options 1 and 2) 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 (under both options) 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

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.

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).[70]

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 Department of Water Resources, Division of Safety of Dams (DSOD). The DSOD provide oversight to the design, construction, and maintenance of over 1,200 jurisdictional sized dams in California.[71]

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.

[70] 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.
[71] California Department 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.

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts to due to hydrology.[72] The following policies related to hydrology and water quality are applicable to the proposed project:

Policy 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.

Policy 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*

Water Quality

The water quality of ponds, creeks, streams, and other surface waterbodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as "non-point" source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Grading and excavation activities during construction of the proposed billboard could increase the amount of surface water runoff (i.e., particles of fill or excavated soil) from the site, or could erode soil downgradient, if the flows are not controlled. Deposition of eroded material in water features could increase turbidity, thereby endangering aquatic life, and reducing wildlife habitat. Excessive precipitation can carry these non-point pollutants downstream.

Drainage and Flooding

The City of Morgan Hill is divided into several hydrologically distinct drainage areas. Each of these areas consist of conveyance facilities, pumps, and detention basins to collect and dispose of the runoff. The storm runoff from these areas is discharged into creeks or ponds that flow through the City and that are tributaries to Monterey Bay or San Francisco Bay. The project site is located in the Madrone Channel storm water drainage basin and drains to Monterey Bay.[73]

The project site is not located within a 100-year flood hazard area. According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), the majority of project site is located within Zone X with a smaller strip extending from the southern property line north in

[72] City of Morgan Hill, California (2016). "Chapter 9, Safety, Services, and Infrastructure." *City of Morgan Hill General Plan 2035.* Accessed May 16, 2019. https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId=

[73] City of Morgan Hill. *2018 Storm Drainage System Master Plan.* September 2018.

Zone D.[74] Zone X is an area of moderate flood hazard, usually the area between the limits of the 100-year and 500-year floods. Zone D is an area of undetermined flood hazard.

Groundwater

The depth to groundwater at the project site is approximately 20 to 30 feet below ground surface.[75] The site does not contain aquifer recharge facilities, such as streams or ponds. There are two existing wells on the property associated with the agricultural activities that have been occurring on the property for decades. With the cessation of agricultural activities, the wells are no longer in regular use.

Dam Failure

The Association of Bay Area Governments has compiled dam failure inundation hazard maps submitted to the State Office of Emergency Services by dam owners throughout the Bay Area. The maps for the City of Morgan Hill show the project site to be in the dam failure inundation hazard zone for Anderson Reservoir.[76] The dams in Santa Clara County are managed by the Santa Clara Valley Water District. Anderson Dam is currently limited to about half its capacity due to seismic concerns, in order to protect against potential dam failure. The dam is currently drained and being retrofitted to solve the seismic issue.[77]

Seiches, Tsunamis, and Mudflows

A seiche is an oscillation of the surface of a lake or landlocked sea varying in period from a few minutes to several hours. There are no landlocked bodies of water near the project site that in the event of a seiche will affect the site.

A tsunami is a series of water waves caused by the displacement of a large volume 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.[78]

A mudflow is the rapid movement of a large mass of mud formed from loose soil and water. The project site is relatively flat and is not susceptible to mudflows.

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[74] Federal Emergency Management Agency, Flood Insurance Rate Map, Community Panel #06085C0443H, May 18, 2009.
[75] Haley Aldrich. *Due-Diligence Level Geotechnical Investigation DePaul Technology Center*. January 21, 2019. Groundwater depth estimation was for the property immediately west of the site (adjacent to DePaul Drive).
[76] Association of Bay Area Governments, *Bay Area Dam Failure Inundation Hazards*, October 5, 2009, http://www.abag.ca.gov/bayarea/eqmaps/damfailure/.
[77] Santa Clara Valley Water District. "Anderson Dam Seismic Retrofit". 2018. https://www.valleywater.org/project-updates/dam-reservoir-projects/anderson-dam-seismic-retrofit.
[78] California Emergency Management Agency, Tsunami Inundation Map for Emergency Planning San Francisco Bay Area, December 9, 2009. http://www.consrv.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/Documents/Tsunami_Inundation_SanFranciscoBayArea300.pdf.

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?

4.10.2.1 *Project Impacts*

Impact HYD-1:	The project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. **(Less than Significant Impact)**

Construction Water Quality Impacts

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 project site, construction activities would increase the potential for erosion and sedimentation by disturbing and exposing underlying soil to the erosive forces of water and wind. Since construction of the proposed project (under Options 1 and 2) 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 Standard Conditions of Approval and the NPDES General Permit for Construction Activities, Standard Condition HYD-1 and Standard Measure HYD-1 are

included in the project to reduce construction-related water quality impacts to a less than significant level.

Standard Condition HYD-1: The applicant shall implement the following standard condition prior to construction:

- As required by the State Water Resources Control Board (SWRCB) Order No. 2009-0009-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 shall file a complete Notice of Intent (NOI) package and develop a Storm Water Pollution Prevention Plan (SWPPP) 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).

Standard Condition HYD-2: In accordance with the City of Morgan Hill Standard Conditions of Approval and the Construction General Permit, the following measures shall be included in the project to reduce construction-related water quality impacts to a less than significant level. The measures shall be implemented to the satisfaction of the Director of Development Services or Director's designee. The BMPs shall be approved by the Director of Development Services or Director's designee prior to the issuance of a grading permit.

The following BMPs shall be implemented during project construction:

- Burlap bags filled with drain rock shall be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities shall be suspended during periods of high winds.
- All exposed or disturbed soil surfaces shall be watered at least twice daily to control dust.
- Stockpiles of soil or other materials that can be blown by the wind shall be watered or covered.
- All trucks hauling soil, sand, and other loose materials shall 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 shall be swept daily (with water sweepers).
- Vegetation in disturbed areas shall be replanted as quickly as possible.

With the implementation of the above BMPs, the project (under Options 1 and 2) would not violate any water quality standards during construction. **(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 conform to the City's Storm Water Management Plan (SWMP) to reduce the discharge of pollutants into waterways and to protect local water quality that could be degraded by storm water and urban run-off within the corporate limits of Morgan Hill.

Under Option 1, the project would include underground retention facilities designed for a 25-year, 24-hour storm event. In addition, an on-site network of drainpipes would collect the runoff filtered through the bioretention areas and underground retention facilities, before being discharged into the public storm drain system to Madrone Channel.

Under Option 2, the project would include underground retention facilities designed for a 100-year, 24-hour storm event. Stormwater runoff would be retained and treated on-site, with no discharge to the Madrone Channel.

With implementation of either stormwater retention option, the project would meet SWMP requirements. Conformance with the SWMP, as proposed by the project under both options, would reduce the potential for the project to result in post-construction water quality impacts. **(Less than Significant Impact)**

Impact HYD-2:	The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. **(Less than Significant Impact)**

The depth to groundwater is approximately 20 to 30 feet below ground surface based on a geotechnical investigation completed for the 58-acre property immediately west of DePaul Drive, deep enough such that ground disturbance during construction, expected at most to be 10 feet during utility trenching and up to 13 feet for off-site sewer installation (under Options 1 and 2), 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 (under Options 1 and 2) would not substantially interfere with aquifer recharge. The existing well on the 33-acre property would be properly removed under permit from the Santa Clara Valley Water District, as required per the District Well Ordinance. **(Less than Significant Impact)**

Impact HYD-3:	The 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, 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. **(Less than Significant Impact)**

Currently, the 33-acre (approximately 1,437,500 square foot) project site is nearly entirely pervious, with the exception of the two small residential structures and associated driveways (the site consists of less than one percent [8,000 square feet] of impervious surfaces). Under either project option for stormwater management, the proposed development would add approximately 21 acres (923,420 square feet) of impervious area consisting of roof tops, proposed walkways, and paved parking lots. The project includes 365,370 square feet of landscaping. In total, the proposed project would result in 1,072,130 square feet of impervious area (approximately 75 percent of impervious surfaces), and 365,370 square feet of pervious area.

Pursuant to the implementation of the SWPPP and other drainage standards implemented by the City, the project would not significantly increase stormwater flows into the existing system during routine rainfall events. The various components of the project would each be required to minimally retain all water from the 95th percentile of rainfall events (approximately two- to five-year storm events) on site; therefore, during 95 percent of the rainfall events, the existing storm drain system would not be impacted by the project (under Options 1 and 2).

Furthermore, on-site systems proposed under Option 1 would be constructed to detain a volume of water up to a 25-year storm event while releasing water at a rate reflective of the 10-year predevelopment flow. This design limits stormwater flows off-site to less than 10-year predevelopment flows. Alternatively, on-site systems proposed under Option 2 would be constructed to retain a volume of water up to a 100-year storm event.

The existing public storm water system is already designed to convey a 10-year storm event; therefore, the project, with either stormwater management option, should not significantly contribute to any additional flooding during the most frequent events. The final drainage system design for each of the project components would be subject to review and approval by the City of Morgan Hill Engineering Division, who would confirm that the proposed drainage system for each component of the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related Conditions of Approval. **(Less Than Significant Impact)**

Impact HYD-4:	The project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. **(No Impact)**

The project (under Options 1 and 2) is not located within a 100-year flood hazard zone and, therefore, would have no impact on 100-year flows or expose people to flood hazards or release of pollutants due to inundation associated with the 100-year flood. **(No Impact)**

Impact HYD-5:	The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **(No Impact)**

The project (under Options 1 and 2) would comply with the City's Stormwater Management Guidance Manual for Low Impact Development and Post-Construction Requirements. The project would not impact groundwater recharge and would not conflict with the SCVWD's 2016 Groundwater Management Plan. For these reasons, the project would not conflict with implementation of a water quality or groundwater management plan. **(No Impact)**

4.10.2.2 *Cumulative Impacts*

Impact HYD-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant hydrology and water quality impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative hydrology and water quality impacts is the Madrone Channel storm water drainage basin. Cumulative developments near the project site would be subject to similar hydrological and urban runoff conditions. All cumulative projects occurring within Morgan Hill would be required to implement the same project conditions related to construction water quality as the proposed project (including preparation of a SWPPP if disturbance is greater than one acre), under Options 1 and 2. For these reasons, the cumulative projects, including the proposed project (under both options), would not result in significant cumulative hydrology or water quality impacts. **(Less than Significant Cumulative Impact)**

4.11 LAND USE AND PLANNING

As shown in Table 2.2-1, NOP comments on the subject of land use were received from the Mariani Family Properties (1615 Half Road). These comments addressed the project's consistency with adjacent General Plan land uses. Checklist question 2 below discusses the project's consistency with the General Plan; however, an evaluation of the project's consistency with the General Plan designation of adjacent or nearby properties is not required by CEQA.

4.11.1 Environmental Setting

4.11.1.1 *Regulatory Framework*

Regional

South County Airport Comprehensive Land Use Plan

A small portion of Morgan Hill extends into the Airport Influence Area (AIA) of the South County Airport, which is located in the unincorporated community of San Martin between Morgan Hill and Gilroy. The airport is operated by Santa Clara County and is used for general aviation, which includes all aviation activities other than commercial passenger flights, commuter/air taxi, and military uses. The subject site does not extend into the AIA.

The AIA includes all areas surrounding the airport that are affected by noise, height, and safety considerations. All development projects within the AIA must be reviewed by the Santa Clara County Airport Land Use Commission (ALUC) to ensure consistency with the Comprehensive Land Use Plan (CLUP). The Morgan Hill City limits are located outside of the airport's noise contours and safety zones.

The CLUP also establishes height restrictions for structures, and the area subject to these height restrictions is slightly greater than the AIA. Per Figure 6, FAR Part 77 Surfaces, of the CLUP, structures in the southern portion of the Morgan Hill City limits should not exceed the height limits of between 481 feet and 631 feet above mean sea level depending on the location of the structure.

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts.[79] The following policies related to land use and planning are applicable to the proposed project:

[79] City of Morgan Hill, California (2016). "Chapter 3, City and Neighborhood Form." *City of Morgan Hill General Plan 2035.* Accessed May 16, 2019. https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId=

Policy 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.
Policy CNF-17.3	Buffer between Industrial and Incompatible Uses. Ensure that all industrial 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 Residential Attached Low-Density designation allows for six to 16 dwelling units per acre. The majority of the 33-acre site is vacant, with a vacant single-family residence located on the southwestern portion of the site. The project site is surrounded by a vacant parcel (open grassland) and the DePaul Health Center to the north, fallowed agricultural fields to the west, open grassland and commercial/industrial uses to the south (beyond Half Road), and agricultural and residential uses to the east (beyond Mission View Drive).

The 33-acre site has a General Plan land use designation of Residential Attached Low which allows for detached and attached residential units with density range of six to 16 units per acre. The site's existing zoning district is Residential Attached Low Density which allows low density housing including single-family detached and attached units, duet units, and duplexes.

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?

The proposed differences in storm drainage, size and depth of the underground retention facilities, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for land use impacts. Neither option would result in significant land use impacts as described below.

4.11.2.1 *Project Impacts*

Impact LU-1:	The project would not physically divide an established community. **(No Impact)**

Examples of projects that have the potential to physically divide an established community include new freeways and highways, major arterial streets, and railroad lines. The project (under Option 1 and 2) proposes to construct a residential development containing 269 dwelling units. The site

project site is in a setting surrounded by residential, commercial, medical office, and school uses. The proposed residential development would be similar to the residential uses to the east of Mission View Drive. The proposed project would not include the construction of dividing infrastructure. The proposed extension of DePaul Drive which would provide access to the project site would not divide an established community, as it would instead serve the future residences of the site. Thus, the project (under both options) would not physically divide an established community. **(No Impact)**

Impact LU-2:	The project would not 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. **(Less than Significant Impact)**

Land use conflicts can arise from a new development or land use that would cause impacts to persons or the physical environment in the vicinity of the project site or elsewhere. Potential incompatibility may arise from placing a particular development or land use at an inappropriate location, or from some aspect of the project's design or scope. Depending on the nature of the impact and its severity, land use compatibility conflicts can range from minor irritations and nuisance to potentially significant effects on human health and safety.

The project is consistent with the existing Residential Attached Low and Residential Attached Low Density General Plan designation and zoning district (described in Section 4.11.1, Land Use and Planning). The project's conformance with various City policies adopted for the purpose of avoiding or mitigating an environmental effect is discussed in various other sections of this EIR (e.g., Air Quality, Biological Resources, Noise, Hazards and Hazardous Materials). There are no additional policies pertaining specifically to land use and planning that were adopted for the purpose of avoiding or mitigating an environmental effect, therefore, the project would not create a significant environmental impact or create a conflict with any plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. **(Less than Significant Impact)**

4.11.2.2 *Cumulative Impacts*

Impact LU-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant land use and planning impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative land use and planning impacts would be the project site and the surrounding neighborhood. The pending Redwood Tech industrial project is immediately west of the site. The project (under Options 1 and 2) would not physically divide a neighborhood; therefore, it would not combine impacts to the neighborhood with other projects. The cumulative projects would implement applicable land use plans, policies, and regulations for the purpose of avoiding or mitigating environmental impacts. Therefore, the cumulative projects 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.

4.12.1.2 *Existing Conditions*

The project site is located in a rural and suburban area within the City of Morgan Hill. Mineral resource recovery activities do not occur on or near the project site, nor does the site contain any known mineral resources.

4.12.2 Impact Discussion

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

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?

The proposed differences in storm drainage, size and depth of the underground retention facilities, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for mineral resources impacts. Neither option would result in no impacts to mineral resources as described below.

4.12.2.1 *Project Impacts*

Impact MIN-1:	The project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. **(No Impact)**

Based on the United States Geological Survey (USGS) map of mines and mineral resources, the project site is not comprised of known mineral resources or mineral resource production areas.[80] The General Plan does not identify the project site or area as a mineral resource recovery site. Therefore, the proposed project (under Options 1 and 2) 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)**

Impact MIN-2:	The project would not 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. **(No Impact)**

As stated in the response to Impact MIN-1, the project (under Options 1 and 2) would not result in the loss of availability of a locally important mineral resource recovery site. **(No Impact)**

4.12.2.2 *Cumulative Impacts*

Impact MIN-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant mineral resources impact. **(No Cumulative 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 (under Options 1 and 2), therefore, would not contribute to a cumulative mineral resources impact. As a result, the project (under both options) would not result in a cumulative mineral resources impact. **(No Cumulative Impact)**

[80] United States Geological Survey. *Mineral Resources Online Spatial Data: Interactive maps and downloadable data for regional and global Geology, Geochemistry, Geophysics, and Mineral Resources.* Available at https://mrdata.usgs.gov/general/map-us.html#home. Accessed April 16, 2021.

4.13 NOISE

The following discussion is based in part on a Noise and Vibration Assessment completed by Illingworth and Rodkin, Inc. on April 26, 2022. A copy of the report is attached as Appendix F of this DEIR.

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.[81] 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.

[81] 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.

City of Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to reduce noise and vibration impacts from planned developments within the City of Morgan Hill.[82] The following policies are applicable to the proposed project:

Policy 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.

Policy SSI-8.2: **Impact Evaluation**. The impact of proposed development project 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.

Policy 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.

Policy 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.

Policy 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.

Policy SSI-8.9: **Site Planning and Design**. Require attention to 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

[82] City of Morgan Hill. *City of Morgan Hill 2035 General Plan.* Adopted July 27, 2016. Accessed February 12, 2020. https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId.

shield outdoor spaces from the noise source; and e) minimizing the noise at its source.

Policy SSI-9.1: **Techniques to Reduce Traffic Noise**. 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.

Policy 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.

Policy 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 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.

Policy 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.

Policy 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.

4.13.1.3 *Existing Conditions*

The predominant noise source at the project site and surrounding area is vehicular traffic along U.S. 101. Local traffic along Mission View Drive and Half Road also contribute to the existing noise environment. Occasional aircraft flyovers associated with San Martin Airport and San José International Airport also contribute to the noise environment.

A noise monitoring survey consisting of two long-term (LT-1 and LT-2) and two short-term (ST-1 and ST-2) noise measurements was completed for a previous project (Morgan Hill Technology Park and Residential Project, State Clearinghouse Number 2019039137) that included the project site and the property to the west of DePaul Drive. These measurements were made between April 9, 2019, and April 11, 2019. While these measurements are more than two years old, they reflect typical conditions pre-COVID, whereas measurements taken during the pandemic would reflect artificially low traffic volumes.

Hourly average noise levels at LT-1 (65 feet south of the centerline of Cochrane Road) typically ranged from 66 to 72 dBA Leq during daytime hours (7:00 a.m. and 10:00 p.m.) and from 55 to 68 dBA L_{eq} during nighttime hours (10:00 p.m. and 7:00 a.m.). The day-night average noise level on Wednesday, April 10, 2019, was 71 dBA L_{dn}.

Hourly average noise levels at LT-2 (400 feet east of the centerline of the nearest through lane along northbound U.S. 101) ranged from 66 to 71 dBA Leq during daytime hours and from 61 to 71 dBA L_{eq} during nighttime hours. The day-night average noise level on Wednesday, April 10, 2019, was 73 dBA L_{dn}.

Short-term noise measurements were made on April 9, 2019, between 10:30 a.m. and 11:10 a.m. ST-1 was made in a single 10-minute interval, while ST-2 was made in two consecutive 10-minute intervals. Passenger cars generated the majority of the noise at the short-term measurement locations, with aircraft flyovers contributing to short-term noise levels. An emergency vehicle contaminated the initial short-term measurements made at ST-2; a second measurement was taken immediately after the initial measurement to characterize the noise environment more accurately at that location. The results of the short-term measurements on shown in. Measurement locations are shown on Figure 4.13-1.

Table 4.13-2: Summary of Short-Term Noise Measurements (dBA)							
Noise Measurement Location	**Date, Time**	**Measured Noise Level, dBA**					
		L_{max}	**$L_{(1)}$**	**$L_{(10)}$**	**$L_{(50)}$**	**$L_{(90)}$**	**$L_{eq(10\text{-}min)}$**
ST-1: ~35 feet east of the centerline of Mission View Drive	4/9/2019, 10:30 a.m. -10:40 a.m.	74	73	69	59	55	64
ST-2: End of De Paul Drive	4/9/2019, 10:50 a.m. -11:00 a.m.	74	75	62	58	56	62
	4/9/2019, 11:00 am -11:10 am	64	61	59	57	55	58
Notes: L_{max} = The maximum A-weighted noise level during the measurement period. $L_{(1)}$, $L_{(10)}$, $L_{(50)}$, $L_{(90)}$ = The A-weighted noise levels that are exceeded one percent, 10 percent, 50 percent, and 90 percent of the time during the measurement period. $L_{eq(10\text{-}min)}$ = The average A-weighted noise level during the measurement period (10-minute interval).							

Common vibration sources include, but are not limited to, railroads, airport runways, and heavy earth-moving equipment. There are no sources of vibration on or near the project site. Noise-sensitive receptors in the project area include the residences east of Mission View Drive, De Paul Health Center to the north, and Live Oak High School to the south.

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?

The proposed differences in storm drainage, size and depth of the underground retention facilities, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for noise impacts. The increase in excavation and grading activities (during the grading/excavation phase) under Option 2 would result in noise levels that would be one dBA L_{eq}, above Option 1, as explained below. As discussed under Impact-NOI-1, with the implementation of Standard Condition NOI-1, both project options would result in a less than significant construction noise impact. There would be no difference in operational noise impacts (which would be less than significant) for Project Options 1 and 2, as discussed below.

4.13.2.1 *Project Impacts*

Impact NOI-1:	The project would not 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. **(Less than Significant Impact)**

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.

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.

As shown in Table 4.13-3, typical hourly average construction-generated noise levels for residential buildings are about 81 to 88 dBA L_{eq}, as measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). For office buildings and hospitals, typical hourly average noise levels would range from 78 to 89 dBA L_{eq}, and for a parking structure, hourly average noise levels would range from 77 to 89 dBA L_{eq}. The typical range of maximum instantaneous noise levels for construction equipment used at this site would be 77 to 90 dBA L_{max} at 50 feet, as shown in Table 4.13-4.

Table 4.13-3: Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA)

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I – All pertinent equipment present at site.

II – Minimum required equipment present at site.

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

Table 4.13-4: Construction Equipment 50-foot Noise Emission Limits		
Equipment Category	**L_{max} Level (dBA)1,2**	**Impact/Continuous**
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
In-situ Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Notes:

1. Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.
2. Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.
3. Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

Table 4.13-4: Construction Equipment 50-foot Noise Emission Limits		
Equipment Category	**L_{max} Level (dBA)1,2**	**Impact/Continuous**
Source: Mitigation of Nighttime Construction Noise, Vibrations and Other Nuisances, National Cooperative Highway Research Program, 1999.		

Construction activities for the proposed 269 residences and DePaul Drive extension would be completed in stages. Each stage of construction would contain a different mix of equipment; therefore, noise levels would vary by stage. Under either option, demolition, site preparation, and grading/excavation would be completed for the entire project site in one phase. The trenching and exterior and interior building construction would be completed in three phases. Table 4.13-5 summarizes the proposed equipment to be used during each construction stage and associated noise levels typically generated by the equipment. The dates listed are estimates and subject to change.

Table 4.13-5: Estimated Construction Noise Levels during the Construction of the Proposed Residential Development: Options 1 and 2			
Construction Stage	**Time Duration**	**Construction Equipment (Quantity)**	**Calculated Hourly Average Noise Levels at 50 feet**
Phase 1 – overall site preparation			
Demolition (full site)	4 days	Excavator (1)	77 dBA Leq
Site preparation (full site)	5 days	Grader (1) Scraper (3)	86 dBA Leq
Grading/Excavating (full site)	0 days under Option 1 (Excavator) 7 days under Option 2 (Excavator) 15 days under Option 1 (Grader) 18 days under Option 2 (Grader)	Excavator (1) – Option 2 only Grader (1) Scraper (3) Tractor/Loader/Backhoe (1) Compactor (1)	87 dBA L_{eq} (Option 1) 88 dBA L_{eq} (Option 2)
Phase 2 – 40 condominium units, 32 single-family attached units, 22 single-family detached units, and clubhouse/pool area			
Trenching – Underground	35 days	Tractor/Loader/Backhoe (1) Excavator (1.5)	83 dBA L_{eq}
Building Exterior	175 days	Forklift (1) Tractor/Loader/Backhoe (1)	80 to 85 dBA L_{eq}
Building Interior	140 days	Air Compressor (4) Paving Equipment (1) Roller (1) Grader (1)	86 to 87 dBA L_{eq}

Table 4.13-5: Estimated Construction Noise Levels during the Construction of the Proposed Residential Development: Options 1 and 2			
Construction Stage	**Time Duration**	**Construction Equipment (Quantity)**	**Calculated Hourly Average Noise Levels at 50 feet**
Paving	16 days	Cement and Mortar Mixer (2) Paver (1) Paving Equipment (1) Roller (1) Tractor/Loader/Backhoe (2) Grader (2)	88 to 91 dBA L_{eq}
Phase 3 – 66 single-family detached units, 45 condominium units, off-site DePaul Drive Extension			
Trenching – Underground	35 days	Tractor/Loader/Backhoe (1) Excavator (1.5[a])	83 dBA L_{eq}
Building Exterior	175 days	Forklift (1) Tractor/Loader/Backhoe (1)	80 dBA L_{eq}
Building Interior	40 days	Air Compressor (5) Paving Equipment (1) Roller (1) Grader (1)	86 to 87 dBA L_{eq}
Paving	16 days	Cement and Mortar Mixer (2) Paver (1) Paving Equipment (1) Roller (1) Tractor/Loader/Backhoe (2) Grader (2)	88 to 91 dBA L_{eq}
Grading/Excavating (DePaul Drive Extension)	15 days	Grader (1) Scraper (1) Tractor/Loader/Backhoe (1) Compactor (1)	86 dBA L_{eq}
Trenching – Underground (DePaul Drive Extension)	35 days	Tractor/Loader/Backhoe (1) Excavator (1.5[a])	83 dBA L_{eq}
Paving (DePaul Drive Extension)	16 days	Cement and Mortar Mixer (2) Paver (1) Paving Equipment (1) Roller (1) Tractor/Loader/Backhoe (2) Grader (2)	88 dBA L_{eq}

Table 4.13-5: Estimated Construction Noise Levels during the Construction of the Proposed Residential Development: Options 1 and 2			
Construction Stage	**Time Duration**	**Construction Equipment (Quantity)**	**Calculated Hourly Average Noise Levels at 50 feet**
Phase 4 – 64 condominium units			
Trenching – Underground	25 days	Tractor/Loader/Backhoe (1) Excavator (1.5[a])	83 dBA L_{eq}
Building Exterior	40 days	Forklift (1) Tractor/Loader/Backhoe (1)	80 dBA L_{eq}
Building Interior	40 days	Air Compressor (5) Paving Equipment (1) Roller (1) Grader (1)	86 to 87 dBA L_{eq}
Paving	12 days	Cement and Mortar Mixer (2) Paver (1) Paving Equipment (1) Roller (1) Tractor/Loader/Backhoe (2) Grader (2)	88 to 91 dBA L_{eq}
Source: Illingworth & Rodkin, Inc. *Half Road and Mission View Residential Project Noise Assessment.* April 26, 2022.			

As shown in Table 4.13-5 above, there is a minimal difference in construction noise between Option 1 and Option 2. Option 1 requires 15 total workdays while Option 2 requires 18 total workdays. Option 2 would include an increase in equipment usage for 16 of the 18 workdays for the use of certain heavy equipment such as excavators (which would be seven more days than Option 1), graders (five more days than Option 1), scrapers (two more days than Option 1), and tractors/loaders (two more days than Option 1).

The use of heavier equipment under Option 2 would result in noise levels that would be one dBA L_{eq} above Option 1 during the grading/excavation phase.

Additionally, an offsite sewer line would be constructed as part of the proposed project. This sewer line would be constructed during the grading/excavation phase of the project and would run along the north side of Half Road and the east side of Condit Road, connecting to the existing sewer line at East Main Avenue. Total construction of the sewer line would last 18 days. The only existing residences that would be subject to noise from the construction of the offsite sewer line would be the single-family residences located west of Condit Road near the Half Road intersection, approximately 25 feet or more from the work area. However, due to the proximity of U.S. 101 and the short duration of the sewer line construction, noise levels due to the off-site sewer construction

would not substantially increase over those noise levels shown in Tables 4.13-3 and 4.13-5 for the grading/excavation phase of the project (under Option 1 and 2).

The noise analysis calculated construction noise levels from the center of the active construction site to the nearest surrounding land uses. Construction noise levels during most project construction would not exceed ambient conditions by more than five dBA L_{eq}. Therefore, exposure to excessive construction noise to sensitive receptors would be minimal.

Construction activities would be completed in accordance with the provisions of the City's General Plan and Municipal Code, which limit 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 following measure would be implemented as a standard condition in order to reduce construction noise coming from the site and minimize disruption and annoyance at existing noise-sensitive receptors in the project vicinity.

Standard Condition NOI-1: 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 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 5 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 condition as well as the Municipal Code limits on allowable construction hours, the project (under Options 1 and 2) 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

A significant permanent noise increase would occur if the project (under Options 1 and 2) would substantially increase noise levels at existing sensitive receptors in the project vicinity. A substantial increase would occur 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 greater at residences; 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 at residences.

Traffic Noise

Based on the 2035 noise contours included in the Morgan Hill 2035 Draft EIR, the surrounding residences would have future noise levels exceeding 60 dBA L_{dn}. Therefore, a significant impact would occur if traffic due to the proposed project would permanently increase ambient levels by three dBA $L_{dn,}$, at which point the noise increase would be perceptible.

The noise report analyzed data from the TIA in order to compare existing traffic noise levels to estimated traffic noise levels associated with the project. When the existing plus project scenario was compared to the existing scenario, the noise level increase due to the proposed project was calculated to be one dBA L_{dn} or less along every roadway segment in the project vicinity, which would not be perceptible. Therefore, the project would not result in a noise level increase of three dBA L_{dn} or more. The project (under Options 1 and 2) would not result in a substantial permanent noise level increase; therefore, the project would not generate a substantial permanent increase in ambient noise levels (due to project traffic) in the vicinity of the project (under either project option) in excess of the City's noise standards. **(Less than Significant Impact)**

Mechanical Equipment

Under the City of Morgan Hill's Noise Element and Municipal Code, noise levels generated by the operation of mechanical equipment included in project units would be considered significant if noise levels were to substantially exceed existing ambient noise levels. Various mechanical equipment, such as heating, ventilation, and air conditioning (HVAC) units are typical for residential units.

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. The detached single-family residences are located along the eastern boundary of the project site in clusters of two or four units. Assuming up to three HVAC units would operate 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 DNL. The property lines of the nearest existing residences located east of the project site, opposite Mission View Drive, are approximately 120 feet from the nearest façades of the proposed single-family units along the eastern project site. At this distance, the hourly average noise levels would reach up to 36 dBA L_{eq}, assuming up to three units would operate simultaneously, and the day-night average noise level would be 58 dBA L_{dn}. According to short-term measurement ST-1 (measured approximately 35 feet east of the centerline of Mission View Drive) and the existing noise contours shown in the City's General Plan, the ambient noise levels at these residences would be 64 dBA L_{eq}. Therefore, the proposed project would not exceed ambient noise levels at the residences to the east of the site.

All other surrounding land uses would be 150 feet or more from the nearest proposed residential building façades on the project site. Therefore, mechanical equipment noise generated from the site would be below 36 dBA L_{eq} on an hourly basis and would be below 58 dBA L_{dn} on a 24-hour

basis at these uses. The project (under Options 1 and 2) would not result in a substantial permanent noise level increase; therefore, the project (under either project option) would not generate a substantial permanent increase in ambient noise levels (due to mechanical equipment) in the vicinity of the site in excess of the City's noise standards. **(Less than Significant Impact)**

Impact NOI-2:	The project would not result in generation of excessive groundborne vibration or groundborne noise levels. **(Less than Significant Impact)**

The construction of the project (under Option 1 and 2) may generate vibration when heavy equipment or impact tools are used. Construction activities would generally include site preparation work, foundation work, and new building framing and finishing. Pile driving, which can cause excessive vibration, is not proposed 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. Table 4.13-6 presents typical vibration levels from construction equipment at 25 feet and 60 feet, which represents the distance of the nearest residential structure to the property line of the project site.

Table 4.13-6: Vibration Levels for Construction Equipment at Various Distances

Equipment		**PPV at 25 ft. (in/sec)**	**PPV at 60 ft. (in/sec)**
Clam shovel drop		0.202	0.077
Hydromill (slurry wall)	in soil	0.008	0.003
	in rock	0.017	0.006
Vibratory Roller		0.210	0.080
Hoe Ram		0.089	0.034
Large bulldozer		0.089	0.034
Caisson drilling		0.089	0.034
Loaded trucks		0.076	0.029
Jackhammer		0.035	0.013
Small bulldozer		0.003	0.001

Table 4.13-6: Vibration Levels for Construction Equipment at Various Distances		
Equipment	**PPV at 25 ft. (in/sec)**	**PPV at 60 ft. (in/sec)**
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., September 2019.		

The nearest buildings surrounding the site range from 120 to 150 feet from the nearest boundaries of the project site. At these distances, construction vibration levels would be at or below 0.073 in/sec PPV for all potential equipment used at the site. Since the 0.3 in/sec PPV threshold would not be exceeded during project construction activities at nearby buildings, the project (under Options 1 and 2) would not result in generation of excessive groundborne vibration. **(Less than Significant Impact)**

Impact NOI-3:	The project would not be 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. The project would not expose people residing or working in the project area to excessive noise levels. **(Less than Significant Impact)**

The San Martin Airport is located approximately five miles south of the project site. The site is located outside of the airport's planning boundary and 60 dBA CNEL noise contour. The project (under Options 1 and 2) would not be located in the vicinity of a private airstrip or public airport. As a result, the project (under Options 1 and 2) would not expose people residing or working in the project area to excessive noise levels (from aircraft noise). **(Less than Significant Impact)**

4.13.2.2 *Cumulative Impacts*

Impact NOI-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant noise impact. **(Less than Significant Cumulative Impact)**

Cumulative noise impacts would include either cumulative traffic noise increases under future conditions or temporary construction noise from cumulative construction projects.

Construction

The geographic area for cumulative construction noise impact would be noise-sensitive receptors within 1,000 feet of the site. The pending Redwood Tech at 101 project, to be located immediately west of DePaul Drive (within 1,000 feet of the site), could be constructed simultaneously with the proposed project, and result in a temporary construction noise increase. While the Redwood Tech project was exempt from CEQA and does not require mitigation measures, the project's Conditions of Approval include the implementation of a dust, noise, vibration and materials management plan, which would reduce potential construction noise impacts. Additionally, the Redwood Tech project

would comply with noise-related General Plan policies. Therefore, the noise-sensitive receptors surrounding the project site would not be subject to cumulative construction noise impacts.

Operation

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 5 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 1 dBA L_{dn} or more attributable solely to the proposed project.

The TIA prepared for the proposed project (which is equally applicable to Options 1 and 2 because the differing stormwater approaches have no bearing on trip generation) included traffic scenarios for cumulative 2035 (no project) and cumulative 2035 plus project conditions. Cumulative traffic noise level increases were calculated by comparing the traffic volumes of both cumulative scenarios to existing traffic volumes.

A three dBA L_{dn} or more noise level increase was calculated for both cumulative scenarios (with and without the proposed project) along the following roadway segments: Mission View Drive, south of Cochrane Road; Mission View Drive, north and south of Avenida De Los Padres; Mission View Drive, north of Half Road; Half Road, west of Mission View Drive; Condit Road, north of Main Avenue; and Diana Avenue, west of Condit Road. Since a three dBA L_{dn} or more increase was calculated for both cumulative scenarios, the project's contribution to the overall noise level increase would be less than 1 dBA L_{dn} (since the increase in noise from cumulative traffic plus project when compared to cumulative no project conditions is negligible, i.e. the contribution of project traffic to cumulative roadway noise is imperceptible). All other roadway segments would result in a noise level increase of two dBA L_{dn} or less. The project (under Options 1 and 2), therefore, would not result in a cumulatively considerable contribution to a significant cumulative traffic noise impact. **(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 project site would continue to result from traffic along U.S. 101 and the other surrounding local roadways. The noise assessment used a worst-case traffic scenario from the traffic study, based on cumulative traffic volumes in 2035 with project build-out, to calculate the future exterior noise volumes at the project site. The future noise level increase along Cochrane Road would be three dBA L_{dn} above existing conditions and the future noise level increase along Mission View Drive would be one dBA L_{dn} above existing conditions.

Peak hour traffic volumes along U.S. 101 were not included in the traffic study; therefore, U.S. 101 peak hour volumes from Caltrans were used to estimate the noise level increase expected by year 2035, assuming a typical one to two percent increase in traffic volumes each year. The future noise increase along U.S. 101 would reach up to two dBA L_{dn} by the year 2035.

The project's compatibility with noise from increased traffic volumes on surrounding roadways is discussed below. This discussion is applicable to Options 1 and 2.

Future Exterior Noise Environment

The project's exterior noise environment includes common outdoor use areas and private backyards. The proposed project (under Options 1 and 2) would include common open space/recreation areas and playground uses. These include: a basketball court, swimming pool, and activity area just east of the court along the western boundary, two smaller open space areas and a seating area along the northern boundary, an open space in the southeastern corner, and an open space and playground at the center of the site.

The proposed three-story condominiums do not include common outdoor areas or private backyards. Therefore, the outdoor areas near these units are not subject to the City's exterior noise thresholds. The duet units would be located along the interior of the site. The backyards of these units would be surrounded by privacy fences, as well as the surrounding residential structures. With the partial shielding and location of these units, the future exterior noise levels at the center of these backyards would be at or below 60 dBA L_{dn}. The majority of the outdoor use areas at the project site meet the normally acceptable threshold of 60 dBA L_{dn} or below.

The backyards of the single-family detached houses located adjacent to the surrounding roadways would have the most exposure to traffic noise. Due to the orientation of these residences, there would be additional attenuation from the buildings at most of the backyards; however, some backyards would face roadways. With six-foot fences as proposed, the future exterior noise levels at the centers of these backyards would exceed 60 dBA L_{dn}. Unit 41 would experience exterior noise levels of 61 dBA L_{dn} and Units 55 and 56 would experience exterior noise levels of 65 dBA L_{dn}.

The City's General Plan states that noise levels at outdoor land areas of residential land uses should be maintained below 60 dBA L_{dn}. In order for the proposed project to reduce noise levels to be at or below 60 dBA L_{dn}, the project would need to implement an eight-foot-tall privacy fence for the backyard of Unit 41 and ten-foot tall privacy fences for the backyards of Units 55 and 56. However, pursuant to the City's Municipal Code, the City allows a maximum of six feet for fences located

outside the front setback, with an additional one foot of fence height for decorative purposes (e.g. lattice work). The City's General Plan Policy SSI-8.1 states that 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. Therefore, with the inclusion of the proposed six-foot fences, exterior noise levels (up to 65 dBA) at the three-story condominium and single-family outdoor areas would be consistent with Policy SSI-8.1

The duet units would be located along the interior of the site. The backyards of these units would be surrounded by privacy fences, as well as the surrounding residential structures. With the partial shielding and location of these units, the future exterior noise levels at the center of these backyards would be at or below 60 dBA L_{dn}.

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 condominium buildings G through W are located along the western boundary of the project site, with western façades ranging from 75 to 100 feet from the centerline of DePaul Drive. At these distances, rooms facing DePaul Drive and U.S. 101 would be exposed to future exterior noise levels ranging from 63 to 72 dBA L_{dn}.

Exterior noise levels at the proposed residential building facades would range from 60 to 72 dBA L_{dn}. Assuming a 15 dBA exterior-to-interior noise reduction, future interior noise levels would be up to 57 dBA L_{dn} along DePaul Drive, up to 54 dBA L_{dn} along Half Road, and up to 55 dBA L_{dn} along Mission View Drive. These interior noise levels would exceed the 45 dBA L_{dn} threshold and would require noise insulation features. To reduce interior noise levels to the 45 dBA L_{dn} threshold or below, the project applicant shall implement the following Conditions of Approval.

Conditions of Approval

The following noise insulation features shall be incorporated into the proposed project (under Options 1 and 2) to reduce interior noise levels to 45 dBA L_{dn} or less:

- The project applicant shall install windows and doors, with a minimum STC rating of 31, that incorporate adequate forced-air mechanical ventilation in residential units nearest to DePaul Drive along the western boundary of the project site (single-family residential units

55 and 56 and condominium units within 150 feet of the centerline of DePaul Drive). For the condominium units beyond 150 feet, the minimum STC rating for windows and doors would be 28.

- The project applicant shall install windows and doors, with minimum STC ratings of 30, that incorporate suitable forced-air mechanical ventilation at first row of residential units located along the southern boundary of the project site, adjacent to Half Road (Units 41, 44, 45, 48, 49, 52, and 53). The second row of residences (units 42, 43, 46, 47, 50, 51, and 54) would require the incorporation of suitable forced-air mechanical ventilation with standard construction materials to meet the City's interior noise threshold.

- The project applicant shall install windows and doors with minimum STC ratings of 30, that incorporate suitable forced-air mechanical ventilation, at the first row of residential units located along the eastern boundary of the project site, adjacent to Mission View Drive (Units 1, 4, 5, 8, 9, 12, 13, 16, 17, 20, 21, 24, 25, 28, 29, 32, 33, 36, 37, and 40) and the second row residential Unit 39. Windows and doors with minimum STC ratings of 28 that incorporate suitable forced-air mechanical ventilation shall be installed at the second row of residences (units 2, 3, 6, 7, 10, 11, 14, 15, 18, 19, 22, 23, 26, 27, 30, 31, 34, 35, and 38).

- The project applicant shall install windows and doors, with minimum STC ratings of 28, that incorporate suitable forced-air mechanical ventilation at Building F, along the northern boundary. Buildings A and E along the northern boundary would satisfy the interior noise threshold with the incorporation of suitable forced-air mechanical ventilation and standard construction materials.

- A suitable forced-air mechanical ventilation shall be installed at residences located on the interior of the site, as determined by the local building official.

4.14 POPULATION AND HOUSING

As shown in Table 2.2-1, NOP comments on the subject of population and housing were received from the Mariani Family Properties (1615 Half Road). These comments requested information regarding how the proposed project would satisfy the Association of Bay Area Governments (ABAG)-adopted Regional Housing Needs Allocation (RHNA) for Morgan Hill. The project includes below market rate units and is consistent with the General Plan and Housing Element, which is focused on satisfying the City's RHNA target. The responses under checklist questions 1 and 2 below discuss the proposed project's consistency with the General Plan's planned population growth.

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.[83] The City of Morgan Hill Housing Element and related land use policies were last updated February 2015.

Regional and Local

Plan Bay Area 2040

Plan Bay Area 2040 is a long-range transportation, land-use, and housing plan intended 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 2040 promotes compact, mixed-use residential and commercial neighborhoods near transit, particularly within identified Priority Development Areas (PDAs).[84]

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

[83] California Department of Housing and Community Development. "Regional Housing Needs Allocation and Housing Elements" Accessed November 5, 2020. http://hcd.ca.gov/community-development/housing-element/index.shtml.
[84] Association of Bay Area Governments and Metropolitan Transportation Commission. "Project Mapper." http://projectmapper.planbayarea.org/. Accessed November 5, 2020.

Regional Forecast of Jobs, Population, and Housing, which is an integrated land use and transportation plan through the year 2040 (upon which Plan Bay Area 2040 is based).

Morgan Hill 2035 General Plan

The following policies to reduce the effects of population and housing are applicable to the proposed project:

Policy CNF-3.4: **Population Limit**. Plan for a January 1, 2035 population of 58,200 residents.

Policy CNF-11.10: **Open Space**. Require new subdivisions to feature integrated common open spaces, parks, and community facilities that serve as social and design focal points. Open spaces should be a close walking distance from all residents and should be large enough to be useful for residents.

4.14.1.2 *Existing Conditions*

The population of Morgan Hill was estimated to be approximately 46,454 in January of 2020 and the average persons per household was an estimated 3.14.[85, 86] The City grew in population by 1.5 percent from January 2019 to January 2020. Based on the City's General Plan projections, the City's total population was projected to grow to approximately 46,100 by 2030.[87] The City had a growth measure which paced development and limited residential allotments to 215 per year. In light of the passage of SB 330, which suspends this growth measure for five years effective January 1, 2020, the City's population is now expected to grow at a faster rate as a function of new housing construction. The project site contains one vacant single-family house north of Half Road.

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?

[85] California Department of Finance. *E-1: City/County Population Estimates with Annual Percent Change – January 1, 2018, and 2019*. May 2019. Accessed November 5, 2020. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/.
[86] California Department of Finance. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2020 with 2010 Census Benchmark. Table 2: E-5 City/County Population and Housing Estimates, 1/1/2020.* May 2020. Accessed November 5, 2020. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.
[87] City of Morgan Hill. *Morgan Hill General Plan: City of Morgan Hill Housing Element*. Adopted February 2015.

The proposed differences in storm drainage, size and depth of the underground retention facilities, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for population and housing impacts. The number of residences proposed (269) and the housing mix are the same for both project options. Both project options would result in less than significant population and housing impacts, as discussed below.

4.14.2.1 *Project Impacts*

Impact POP-1:	The project would not 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). **(Less than Significant Impact)**

The project proposes to develop the site with 269 residential units including 149 condominiums, 64 duet units, and 56 single-family detached units on a 33-acre site (under Options 1 and 2). Assuming 3.14 persons per household, development of the project would generate approximately 845 new residents in the City of Morgan Hill. The project includes the extension of DePaul Drive by approximately 2,280 feet. This roadway extension was accounted for in the General Plan and would not induce unplanned population growth by serving new areas where growth is restricted due to poor access.

The project (under both options) would result in residential growth in the area compared to existing conditions. However, the project is consistent with the site's General Plan designation of Residential Attached Low-Density, which allows housing at a density of six to 16 dwelling units per acre (168 to 448 dwelling units on 33 acres).[88] The project (under both options) would not induce substantial additional population growth beyond what was evaluated in the General Plan EIR. Thus, the project (under Options 1 and 2) is accounted for in the City's General Plan and projected growth and would not result in substantial unplanned population growth. **(Less than Significant Impact)**

Impact POP-2:	The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. **(No Impact)**

The existing single-family house on-site is vacant. The project site does not include residents or occupied housing units and, therefore, the project (under Options 1 and 2) would not displace existing people or housing, necessitating the construction of replacement housing elsewhere. **(No Impact)**

[88] The additional five acres of the site would be used for the construction of the DePaul extension.

4.14.2.2 *Cumulative Impacts*

Impact POP-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant population and housing impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative population and housing impacts is the City of Morgan Hill. The existing structures on-site are vacant; the project would increase the number of residential units by 269 and, therefore, would not contribute to the displacement of people or housing in the City. The project (under Options 1 and 2) is consistent with the planned housing and growth assumptions established in the General Plan. Consistent with the conclusions of the General Plan EIR, cumulative projects in the City consistent with General Plan, would not result s substantial unplanned population growth or 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 following policies to reduce the effects of public services are applicable to the proposed project:

Policy HC-3.3: **Park Land Fees**. Continue to require park land dedication or in-lieu fees from all new development to meet the recreation and open space needs of the residents of Morgan Hill.

Policy HC-3.20: **Safety**. Incorporate fire and police services into the design review process for new parks, recreation facilities, and trails.

Policy HC-3.29: **Development Requirements**. Continue to require park acquisition and development fees and/or land dedication to support the acquisition and development of parks, trails and other recreation facilities.

Policy 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.

Policy SSI-12.4: **Maintenance of Emergency Access Routes**. Require that emergency access routes be kept free of traffic impediments.

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 1.1 mile southwest of the project site), 2) Dunne Hill Fire Station, located at 2100 East Dunne Avenue (approximately 2.0 miles southeast of the project site), and 3) 15670 Monterey Street (approximately 2.8 miles south of the project site).

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 2.3 mile south of the project site. The department employs 42 sworn officers.[89] The Police Department's goal is to respond to Priority One calls within five minutes and Priority Two calls within eight minutes.[90]

[89] City of Morgan Hill. "Fiscal Years 2020-2022: Adopted Operating and CIP Budget." Accessed October 18, 2021. https://user-ddhj25y.cld.bz/FY-2021-2122-ADOPTED-OPERATING-AND-FY-2021-2526-CIP-BUDGETS

[90] Morgan Hill Police Department. *2019 Annual Report: January 2019 – December 2019.* http://www.morgan-hill.ca.gov/DocumentCenter/View/36821/2019-MHPD-Annual-Report-Webpub?bidId=.

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 (MHUSD). The MHUSD 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 project site is located within the enrollment areas of Nordstrom Elementary School (1.5 miles southeast), Martin Murphy Middle School (8.5 miles north), and Live Oak High School (0.6 mile southeast).[91] For the 2019/2020 school year, approximately 647 students attended Nordstrom Elementary School, 770 students attended Martin Murphy Middle School, and 1,175 students attended Live Oak High School.[92] The three schools have an enrollment capacity of 691, 807, and 1,515 students, respectively.[93]

Parks

The City owns 70 acres of developed park land (including the Civic Center, assessment district parks and city owned trails) and 59 acres of recreation facilities. Included within this inventory, 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 significant amount of recreational land and open space in the City that is privately owned and maintained.

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 General Plan includes policies that support the City's park land and recreational goal to provide useful, accessible, and high-quality parks, recreation, and trail facilities. To achieve this goal, the City has adopted General Plan Policies and a park land dedication/park land in-lieu fee ordinance (Municipal Code Chapter 17.28) that requires park land dedication or in-lieu fees for residential developments.

In accordance with General Plan Policies HC-3.3 and HC-3.29, park land dedication or in-lieu fees are required by new developments to meet the recreation and open space needs of residents in

[91] Morgan Hill Unified School District. *Find your school.* Accessed April 15, 2021. https://www.mhusd.org/about/find-your-school.
[92] California Department of Education. *About DataQuest*. Accessed April 17, 2021. https://www.cde.ca.gov/ds/sd/cb/dataquest.asp.
Morgan Hill Unified School District. *Live Oak High School: About.* Accessed April 17, 2021. https://liveoak.mhusd.org/about.
[93] Morgan Hill Unified School District. *Demographic Study 2018/19.* January 2019.

Morgan Hill. The nearest parks and recreational facilities to the site include the Madrone Channel Trail, approximately 0.2 mile west of the site (and 125 feet east of U.S. 101), Coyote Creek Trail (a regional trail, approximately one mile northeast of the site), and Diana Park, located on 555 Diana Avenue, approximately one mile southwest of the site. The Madrone Channel and Coyote Creek Trails are pedestrian and bicycle trails. Diana Park includes open lawn and children's play areas.

Libraries

The Morgan Hill Library is a member of the Santa Clara County Library District. The Santa Clara County Library District (SCCLD) governs and administers seven community libraries, one branch library, two bookmobiles, the Home Service Library, and the 24-7 online library for all library users. The SCCLD serves all unincorporated communities of Santa Clara County, as well as nine Santa Clara County cities, including Campbell, Cupertino, Gilroy, Los Altos, Los Altos Hills, Milpitas, Monte Sereno, Morgan Hill, and Saratoga. As one of the SCCLD's member cities, Morgan Hill has a community library located on 680 West Main Avenue, approximately two miles southwest 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?

The proposed differences in storm drainage management, size and depth of the underground retention facilities, and construction equipment usage, when comparing Project Options 1 and 2, would not affect the conclusions for public services impacts or increase the use of public services. Both project options would result in less than significant population and housing impacts, as discussed below.

4.15.2.1 *Project Impacts*

Impact PS-1:	The project would not 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. **(Less than Significant Impact)**

The proposed residential development would be constructed in conformance with current building and fire codes, including features that would reduce potential fire hazards. The development would be reviewed by both CalFIRE and the Morgan Hill Police Department to ensure appropriate safety features to reduce fire hazards and criminal activity are included in the project. Given that the proposed project is in proximity to existing development and is consistent with the General Plan's growth projections, the proposed project would not substantially increase the demand for fire protection, or otherwise require construction or expansion of fire facilities beyond what is assumed in the General Plan. Based on the conclusions of the General Plan EIR, MHFD may need to change or increase staffing and/or equipment at existing stations in order to adequately serve and construct a new station to adequately serve development under the General Plan. The project applicant will pay development impact fees to contribute to fire protection services and equipment. Consistent with Policies SSI-11.2 and SSI-12.4, MHFD would review the site design to ensure the project (under Options 1 and 2) provides adequate safety measures. For these reasons, the project would result in a less than significant impact on fire protection services or facilities. **(Less than Significant Impact)**

Impact PS-2:	The project would not 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. **(Less than Significant Impact)**

The project site would be served by MHPD. As discussed in 4.15.1.2, the project site is located less than 2.5 miles from MHPD, which is within the eight minute response time requirement. The site is in proximity to existing development that is currently served by the MHPD. The General Plan EIR concluded the existing police station would serve future development, however new vehicles and safety equipment would be required. The General Plan EIR also concluded that the payment of development impact fees and consistency with General Plan policies would ensure future development under the General Plan would result in a less than significant impact on police facilities. The project applicant will pay development impact fees for police services. Consistent with General Plan Policy SSI-11.2, MHPD would review the site design to ensure the project provides adequate safety measures. For these reasons, the project (under Options 1 and 2) would result in a less than significant impact on police services or facilities. **(Less than Significant Impact)**

Impact PS-3:	The project would not 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. **(Less than Significant Impact)**

The project proposes a maximum of 269 dwelling units (under Options 1 and 2). The MHUSD has estimated elementary, middle, and high school student generation rates for residential units. Below are the estimated student generation rates for the project's assigned schools in the MHUSD.

Table 4.15-1: Student Generation Rates and Capacity

Schools	Student Generation Rate	Number of Students Generated	Current Enrollment	Enrollment Capacity
Nordstrom Elementary School	0.212	57	647	691
Martin Murphy Middle School	0.101	27	770	807
Live Oak High School	0.152	41	1,175	1,515

Using the MHUSD's student generation rates per unit for housing, the addition of 269 dwelling units would generate approximately 125 students.[94] The project (under Options 1 and 2) would not result in an exceedance of enrollment capacity at Martin Murphy Middle School or Live Oak High School. The General Plan EIR projected that buildout of the General Plan would cause schools in the MHUSD to exceed enrollment capacity project Although the project generated students would cause Nordstrom Elementary School to exceed enrollment capacity by approximately 13 students, the project is consistent with the General Plan and would not exceed enrollment projections discussed in the General Plan EIR. 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. Based on the conclusions of the General Plan EIR, the payment of impact fees to provide funding for new school facilities would fully mitigate the impacts of new development on schools. Therefore, consistent with the conclusions in the General Plan EIR, the project (under Options 1 and 2) would not result in substantial adverse impact on school facilities. **(Less Than Significant Impact)**

[94] Morgan Hill Unified School District. *Demographic Study 2018-2019*. January 2019. The estimated student generation rate of 0.465 for new residences within the Morgan Hill Unified School District.

Impact PS-4:	The project would not 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. **(Less than Significant Impact)**

The City of Morgan Hill has adopted a parkland dedication/park land in-lieu fee ordinance (Municipal Code Chapter 17.28) that requires parkland dedication or in-lieu fees for residential developments. The proposed project (under Options 1 and 2) includes a maximum of 269 residential units resulting in approximately 845 new residents, assuming 3.14 persons per household, and would increase use of nearby parks, creating the demand for 2.5 acres of parkland (three acres of parkland per 1,000 residents). The project (under both project options) proposes 5.3 acres of open space, including on-site recreational areas such as a clubhouse, pool, children's play area, basketball court, fitness court, and barbeque/picnic areas. The project would comply with the parkland dedication/park land in-lieu fee ordinance, which would offset significant impacts to the City's park facilities. In addition, the proposed residents' use of the on-site recreational facilities would reduce the demand on existing park facilities. For these reasons, the project (under Options 1 and 2) would have a less than significant impact on park and recreational facilities. **(Less Than Significant Impact)**

Impact PS-5:	The project would not 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. **(Less than Significant Impact)**

The proposed project would develop up to 269 residential units resulting in approximately 845 new residents, assuming 3.14 persons per household (under Options 1 and 2). [95] The General Plan EIR determined that new growth under the General Plan would occur incrementally over the next 20 years and the planned improvements to the Morgan Hill Library would accommodate that growth. In addition, the City has set aside funds to expand the Morgan Hill Library. For these reasons, the proposed project (under Options 1 and 2) would not have a significant impact on library resources. **(Less than Significant Impact)**

[95] California Department of Finance. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2020 with 2010 Census Benchmark. Table 2: E-5 City/County Population and Housing Estimates, 1/1/2020.* May 2020. Accessed November 9, 2020. http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-5/.

4.15.2.2 *Cumulative Impacts*

Impact PS-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant public services impact. **(Less than Significant Cumulative Impact)**

Fire and Police Protection Services

The geographic area for cumulative fire protection services is the City boundaries. The project would, therefore, result in an incremental demand for fire protection and police services. The projects would be built to applicable fire code standards. The City would review plans and conduct construction inspections to ensure that new development complies with existing building and fire code requirements and public safety requirements for all of the cumulative projects. The cumulative projects would pay development impact fees and comply with General Plan policies pertaining to public safety. For these reasons, the combined effects of police and fire service demands by the cumulative projects (including the proposed project) would result in a less than significant cumulative impact on police and fire services and facilities. **(Less than Significant Cumulative Impact)**

Schools

The geographic area for cumulative impacts to schools is the MHUSD's boundaries since the project is located within the MHUSD school district. The cumulative projects within this district include residential development projects that would generate new students. The General Plan EIR contained a cumulative analysis which projected that buildout of the General Plan would cause schools in the MHUSD to exceed enrollment capacity project, creating the need for new or expanded school facilities. The proposed project (under Options 1 and 2) is implementing planned housing per the General Plan; therefore, the project (under both project options) itself would not result in significant impacts to schools.

As required by state law (Government Code Section 65995), development projects shall pay the appropriate school impact fees to impacted school districts in order to offset the increased demands on school facilities caused by the development. The cumulative projects (including the proposed project), in conformance with state law, would not result in significant cumulative impacts to schools. **(Less than Significant Cumulative Impact)**

Parks

The geographic area for cumulative park impacts is the City boundaries. The buildout of the General Plan and cumulative projects (including the proposed project) would incrementally increase the demand for park facilities but would also create new public open space. Any impacts to parklands and open spaces would be mitigated through in-lieu fees required by state law (Government Code Section 66477). For these reasons, the cumulative projects (including the proposed project) would not result in significant cumulative impacts to parks. **(Less than Significant Cumulative Impact)**

Libraries

The geographic area for cumulative library impacts is the City boundaries. The cumulative projects (including the proposed project) would contribute to the Citywide demand for library services; however, the General Plan EIR concluded that development allowed under the General Plan would be adequately served by existing and planned library facilities. In the event new or expanded library facilities are required, construction of those facilities would be subject to site-specific CEQA environmental review. It is assumed that implementation of General Plan policies would reduce the physical impacts from development of library facilities to a less than-significant level. For these reasons, the cumulative projects (including the proposed project [under Options 1 and 2]) would not result in a significant cumulative impact to library facilities. **(Less than Significant Cumulative Impact)**

4.16 RECREATION

As shown in Table 2.2-1, NOP comments on the subject of recreation were received from the County of Santa Clara Parks and Recreation Department. These comments addressed the project's potential impacts on the Madrone Channel Trail. Impacts to recreational facilities are discussed under checklist question 1 below.

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.

Local

Morgan Hill 2035 General Plan

The following policies to reduce the effects of recreation are applicable to the proposed project:

Policy HC-3.3: **Park Land Fees**. Continue to require park land dedication or in-lieu fees from all new development to meet the recreation and open space needs of the residents of Morgan Hill.

Policy HC-3.29: **Development Requirements**. Continue to require park acquisition and development fees and/or land dedication to support the acquisition and development of parks, trails and other recreation facilities.

Morgan Hill Municipal Code

Chapter 17.28 (Dedications and Reservations) includes different dedication requirements for the City in Article I (Park Land Dedication). The Park Land Dedication regulations are applied to all development except commercial or industrial subdivisions, condominium projects, or stock cooperatives which consist of the subdivision of airspace in an existing apartment building, which is more than five years old when no new dwelling units are added. The amount of dedicated land is determined by multiplying the average number of persons per unit and the park acreage standard of three acres of parkland for every 1,000 residents as allowed by the Quimby Act. The in-lieu fee

would be determined based upon the fair market value of the land which would otherwise be required to be dedicated.

4.16.1.2 *Existing Conditions*

The City owns 70 acres of developed park land (including the Civic Center, assessment district parks and city owned trails) and 59 acres of recreation facilities. Included within this inventory, 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 significant amount of recreational land and open space in the City that is privately owned and maintained.

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 parks and recreational facilities to the site include the Madrone Channel Trail, approximately 0.2 mile west of the site (and 125 feet east of U.S. 101), Coyote Creek Trail (a regional trail), approximately one mile northeast of the site, and Diana Park, located on 555 Diana Avenue, approximately one mile southwest of the site. The Madrone Channel and Coyote Creek Trails are pedestrian and bicycle trails. Diana Park includes open lawn and children's play areas.

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?

The proposed differences in storm drainage management, size and depth of the underground retention facilities, and construction equipment usage, when comparing Project Options 1 and 2, would not affect the conclusions for recreation impacts or increase the use of recreational facilities. Both project options would result in less than significant recreational impacts, as discussed below.

4.16.2.1 *Project Impacts*

Impact REC-1:	The project would not 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. **(Less than Significant Impact)**

The proposed project would include up to 269 residential units, resulting in approximately 845 new residents, assuming 3.14 persons per household (under Options 1 and 2). As discussed in Section 4.15 Public Services, the proposed residential development would increase the use of nearby parks and recreational facilities, resulting in a demand of 2.5 acres of parkland, based on the City standard of three acres per 1,000 residents. The project would provide on-site recreational facilities such as a such as a clubhouse, pool, children's play area, basketball court, fitness court, and barbeque/picnic areas (under Options 1 and 2). Future residents' use of the on-site recreational facilities would reduce the demand for existing park and recreational facilities. In addition, the project would comply with the parkland dedication/park land in-lieu fee ordinance, which would offset significant impacts to the City's park facilities. For these reasons, the project would not substantially increase the use of existing park and recreational facilities, such as the nearby Madrone Channel trail, which would result in physical deterioration of these facilities. **(Less than Significant Impact)**

Impact REC-2:	The project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. **(Less than Significant Impact)**

As discussed in response to Impact REC-1 above the project would include the construction of on-site recreational facilities. The impacts (e.g., construction related water quality impacts, trees/nesting birds, construction noise, hazards and hazardous materials, and hydrology and water quality) from construction of these facilities would be reduced to less than significant with the implementation of standard conditions and mitigation measures described throughout the 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*

Impact REC-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant recreation impact. **(Less than Significant Cumulative Impact)**

The geographic area for cumulative recreation impacts is the City's boundaries. Cumulative projects generating new residents must comply with the City's requirements for parkland dedication, provisions of public space, and/or payment of in-lieu fees to minimize impacts of new residents on existing park and recreation facilities. Cumulative projects which include construction or expansion of recreational facilities would be required to implement standard conditions and mitigation

measures to reduce impacts on the environment from the construction of these facilities to less than significant. For these reasons, the cumulative projects would not result in a significant cumulative recreation impact. **(Less than Significant Cumulative Impact)**

4.17 TRANSPORTATION

The following discussion is based in part on a Traffic Impact Analysis prepared by Hexagon Traffic Consultants, Inc. on December 23, 2020. A copy of this report is attached as Appendix G of this DEIR.

As shown in Table 2.2-1, NOP comments on the subject of transportation were received from the County of Santa Clara Roads and Airports Department (County Roads), the Mariani Family Properties (1615 Half Road), and the Santa Clara Valley Transportation Authority (VTA). County Roads' comments addressed the need for the traffic analysis to evaluate the same intersections that were evaluated in the Morgan Hill Technology Center project EIR, requested the site alleyway is reserved for use by emergency vehicles, and noted that an all-way stop sign installation at Half Road and Mission View is underway by the County. Mariani Family Properties requested that the EIR include a discussion of planned bicycle, pedestrian, and public transit/bus service.

The VTA comments noted that VTA's Congestion Management Program (CMP) requires a Transportation Impact Analysis (TIA) for any project expected to generate more than 100 new or net trips. The VTA comments also noted that the TIA's analysis of pedestrian and bicycle modes should consider the completeness of the pedestrian and bicycle network on roadways and intersections adjacent to and nearby the project site. Furthermore, VTA recommended installation of a new southbound bus stop on Mission View Drive, as well as installation of street lighting and landscaping. These comments are addressed under checklist questions 1 through 4 below.

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 2040 in July 2017, which includes a Regional Transportation Plan to guide regional transportation investment for revenues from federal, state, regional and local sources through 2040.

Senate Bill 743

SB 743 establishes criteria for determining the significance of transportation impacts using a vehicle miles traveled (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 Office of Planning and Research (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.

Regional

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.

Local

City of Morgan Hill 2035 General Plan

The following transportation policies are applicable to the proposed project:

Policy TR-3.2: **Safe and Complete Improvements**. Avoid creating incomplete public improvements that create public safety hazards.

Policy 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:

    - 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:

    - Main Avenue and Del Monte Avenue
    - Main Avenue and Depot Street
    - Dunne Avenue and Del Monte Avenue
    - Dunne Avenue and Monterey Avenue
    - Dunne Avenue and Church Street; also, until closed: Dunne Avenue and Depot Street
    - Cochrane Road and Monterey Road
    - Tennant Avenue and Monterey Road
    - Tennant Avenue and Butterfield Boulevard
    - Cochrane Road Freeway Zone: from Madrone Parkway/Cochrane Plaza to Cochrane/DePaul Drive
    - Dunne Avenue Freeway Zone: from Walnut Grove/East Dunne to Condit/East Dunne
    - Tennant Avenue Freeway Zone: from Butterfield/Tennant to Condit/Tennant Freeway Ramps

  Projects shall pay the City's standard traffic impact fees imposed on new developments in accordance with the adopted impact fee schedule.

Policy 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

U.S. 101 is a north-south freeway extending northward to San Francisco and southward through Gilroy. U.S. 101 is an eight-lane freeway (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 Cochrane Road and Dunne Avenue.

Local Access

Cochrane Road is an east-west divided roadway that runs from Monterey Road to Malaguerra Avenue, east of U.S. 101. Currently, Cochrane Road is a four-lane road between Monterey Road and Sutter Boulevard. Between Sutter Boulevard and U.S. 101, Cochrane Road widens to three lanes eastbound and two lanes westbound, then narrows back to four lanes east of U.S. 101, and to two lanes east of Mission View Drive. Access to the project site is provided via its intersections with DePaul Drive and Mission View Drive.

Dunne Avenue extends from the east part of Morgan Hill to the west side of the side and has sidewalks located along both sides of the street. Bicycle lanes are located along both sides of Dunne Avenue between Peak Avenue and Gallop Drive (east of U.S. 101). Access to the project site is provided via its intersection with Condit Road.

DePaul Drive is a north-south undivided roadway that intersects Cochrane Road approximately 700 feet east of the U.S. 101 northbound ramps intersection and runs approximately 1,500 feet north and 1,000 feet south of Cochrane Road. The project proposes to extend DePaul Drive by approximately 2,280 feet south along its frontage to provide direct access to the project site via two full access driveways. As proposed, DePaul Drive would terminate as a cul-de-sac just north of Half Road.

Half Road is an east-west undivided roadway that runs from Condit Road to Peet Road. Half Road runs along the project's southern frontage. However, Half Road would not provide direct access to the project site and would not intersect the proposed extension of DePaul Drive. Access to the project site is provided via its intersection with Mission View Drive.

Mission View Drive is a north-south two-lane undivided roadway that runs from Eagle View Drive to Half Road. Mission View Drive runs along the project's eastern frontage. Access to the project site would be provided via a full access driveway along Mission View Drive.

Main Avenue is a two-lane roadway that runs eastward from its intersection with DeWitt Avenue to Coyote Road at the base of the eastern foothills. The roadway has an overcrossing of U.S. 101,

however no access to U.S. 101 is provided. Access to the project site is provided via its intersections with Condit Road.

Condit Road 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 transition to Half Road.

Existing Bicycle, Pedestrian and Transit Facilities

Bicycle Facilities

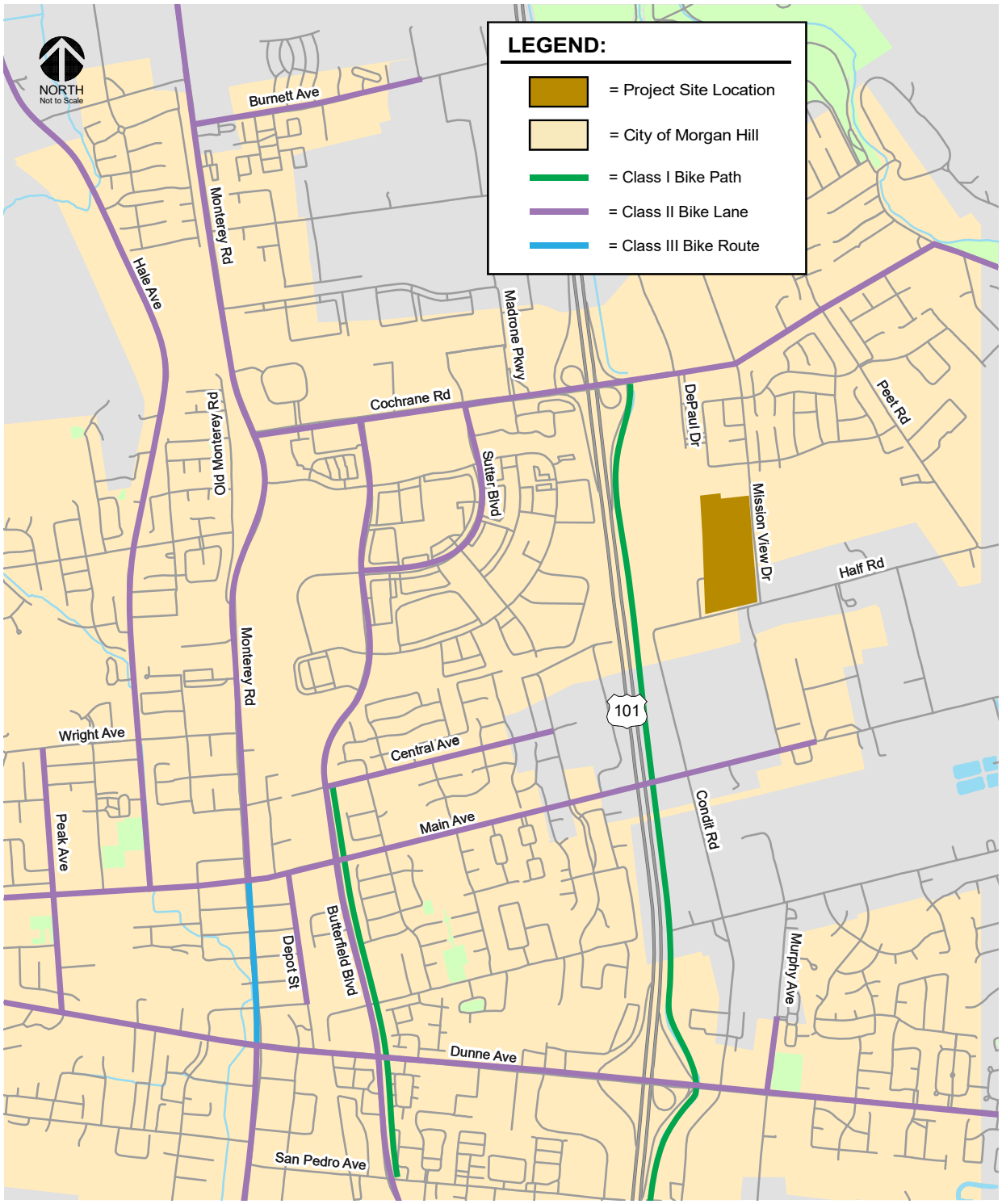
Bicycle facilities in the project area include Class I bikeways, Class II bike lanes, and Class III bike routes (refer to Figure 4.17-1). Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. Class II bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Class III bike routes are existing streets (signed shared roadways) that accommodate bicycles but are not separate from the existing travel lanes.

Bicycle lanes are currently provided along the length of Cochrane Road. There are also bicycle lanes along Main Avenue beginning at Live Oak High School and continuing west across U.S. 101 to Peak Avenue. An unpathed bicycle path, the Madrone Channel Trail, runs along the east side of U.S. 101, between Tennant Avenue and Cochrane Road. The remaining bicycle facilities in the area are located west of U.S. 101. Bicycle lanes are currently provided along the following roadways:

- Butterfield Boulevard, along its entire length;
- Sutter Boulevard, from Cochrane Road to Butterfield Boulevard;
- 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
- Burnett Avenue, from Monterey Road to Bauman Court (west of U.S. 101)
- Central Avenue, from Butterfield Boulevard to its termination point west of U.S. 101
- Dunne Avenue, from Peak Avenue to east of Hill Road
- Depot Street, along its entire length
- Peak Avenue, between Dunne Avenue and Wright Avenue
- Murphy Avenue, Dunne Avenue and Kelly Park Circle
- Hale Avenue, between Main Avenue and north of City of Morgan Hill

Other bicycle facilities in the project vicinity include the following:

- A bicycle route on Monterey Road, between Dunne Avenue and Main Avenue;
- A paved bicycle path on east side of Butterfield Boulevard, between San Pedro Avenue and Central Avenue;



Source: Hexagon Transportation Consultants, Inc., December 23, 2020.

EXISTING BICYCLE FACILITIES | FIGURE 4.17-1

Pedestrian Facilities

Pedestrian facilities in the study area consist primarily of sidewalks, pedestrian push buttons and signal heads at signalized intersections. The project site is, however, is surrounded by undeveloped properties where continuous sidewalks on streets (such as Half Road, DePaul Drive, and the southern portion of Mission View Drive) are not available. Sidewalks are provided along at least one of the sides of the following roadways in the vicinity of the project site:

Cochrane Road: Sidewalks are provided along the north side of the street between Butterfield Boulevard and White Moon Drive. Along the south side of the street, sidewalks are provided from Monterey Road to east of Mission View Drive with the exception of the segments between Woodview Avenue and Sutter Boulevard, U.S. 101 northbound ramps and DePaul Drive (the north project frontage), and a short segment west of Mission View Drive.

Mission View Drive: Sidewalks are provided along the east side of the street between the northern end of Mission View Drive (at Eagle View Drive) until approximately 950 feet north of its intersection with Half Road. There are no sidewalks along the west side of Mission View Drive, with the exception of curb ramps located at the northwest and southwest corners of the Mission View Drive and Cochrane Road intersection.

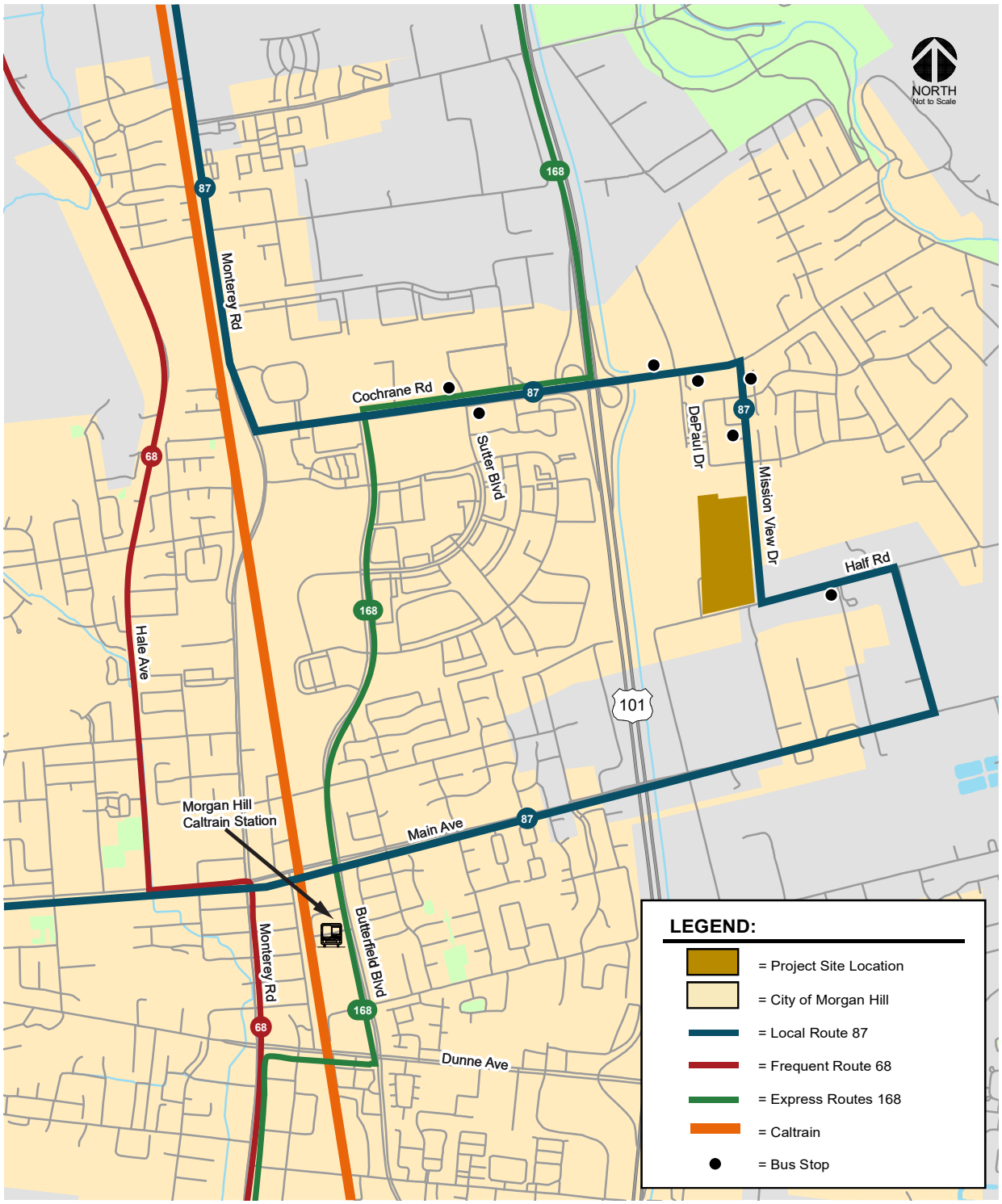
Sidewalks are not located on either side of DePaul Drive south of Cochrane Road. All other streets in the immediate vicinity of the project site fronting the undeveloped areas have no sidewalks.

Transit Facilities

Existing transit service to the project area is provided by VTA and Caltrain. The bus routes and transit stations serving the project site are described below and shown on Figure 4.17-2.

Local Bus Route 87 operates on Cochrane Road, Mission View Drive, and Half Road in the project area. Bus Route 87 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. It 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 and Mission View Drive/Avenida De Los Padres intersections.

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 northbound with 30- to 45-minute headways during the AM commute period only and southbound with 45-minute headways during the PM commute period only. The nearest Route 168 stops to the project site are located at the intersection of Sutter Boulevard and Cochrane Road, approximately 0.75-mile west of the project site.



Source: Hexagon Transportation Consultants, Inc., December 23, 2020.

EXISTING TRANSIT FACILITIES | FIGURE 4.17-2

In addition to the bus routes serving the project site, the Morgan Hill Caltrain station is located along Depot Street, approximately 1.5 miles southwest of the project site. Caltrain provides commuter rail service between San Francisco and Gilroy. At the Morgan Hill station, Caltrain only provides service in the northbound direction during the AM commute period with 30-minute headways and in the southbound direction only during the PM commute period with approximately 90-minute headways.

4.17.1.3 *VMT Methodology*

The VMT impact analysis (in Section 4.17.2) was completed using the Santa Clara Valley Transportation Authority's (VTA) VMT tool. The City of Morgan Hill is currently developing the framework for new transportation policies based on VMT. Since the City has not formally adopted its own VMT policies, this study utilizes VMT analysis methodology and impact thresholds recommended in the Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018.

Based on the OPR's technical advisory, VMT per resident (capita) is the recommended metric to evaluate CEQA-related transportation impacts for residential land uses. As stated in the technical advisory, OPR recommends an impact threshold of 15 percent below the existing VMT levels for residential land uses. OPR allows the existing VMT to be measured as regional or citywide VMT per capita. For the purposes of this project, the impact threshold is 15 percent below the city-wide residential VMT per capita.

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?

The proposed differences in storm drainage management, size and depth of the underground retention facilities, and construction equipment usage, when comparing Project Options 1 and 2, would not affect the conclusions for VMT or operational transportation impacts in that the approach to stormwater management has no bearing on trip generation. Both project options would result in less than significant transportation impacts, as discussed below.

4.17.2.1 *Project Impacts*

Impact TRN-1:	The project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities. **(Less than Significant Impact)**

The project is consistent with the policies of the City's General Plan, to improve sidewalk connectivity and expand pedestrian opportunities (under Options 1 and 2). 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. Consistency with these plans, for Options 1 and 2, is described below.

Pedestrian Facilities

The project proposes sidewalks along its entire frontages along Mission View Drive, Half Road, and DePaul Drive and would result in a continuous connection to the existing sidewalks on the east side of Mission View Drive to provide a safe connection between the project site and other surrounding land uses in the area. Controlled crossings at the intersections of Cochrane Road with Mission View Drive and DePaul Drive would provide a connection between the project area and retail uses on the north side of Cochrane Road. The proposed project (under Options 1 and 2) would improve pedestrian safety and circulation throughout the project area. The project would (under both options), therefore, not conflict with a program plan or policy addressing the pedestrian facilities. **(Less than Significant Impact)**

Bicycle Facilities

Based on the TIA, the project could generate up to three new bicycle trips during each of the peak hours. The demand generated by the proposed project could be accommodated by the existing bicycle facilities in the vicinity of the project site. City's Bikeways, Trails, Parks and Recreation Master Plan was adopted in July 2017. Planned multi-use trails would be located along the Madrone Channel trail, Mission View Drive, and East Main Avenue in the project area.

The proposed project would not exceed the capacity of the existing bicycle facilities or preclude the construction of planned improvements. The project (under Options 1 and 2) would not remove any bicycle facilities, nor would it conflict with any adopted plans or policies for new bicycle facilities. **(Less than Significant Impact)**

Transit Facilities

As stated in Section 4.17.1, the project site is served by one bus route, local bus (Local Bus Route 87) and one express route (Express Route 168), which provide connection to the Morgan Hill Caltrain Station. A typical mode split in Morgan Hill would be a three percent transit share. Assuming up to three percent transit mode share for the project equates to no more than six transit riders during the AM peak hour and eight riders during the PM peak hour. The transit ridership

demands of the proposed project would require the expansion of existing transit facilities. Per the VTA's request, the following condition of approval would be implemented by the project.

Condition of Approval TRN-1: The project shall pay a fair share contribution toward the installation of a southbound bus stop, including street lighting, landscaping, and a new passenger pad, after the main entrance on Mission View Drive.

The proposed project (under Options 1 and 2) would not interfere with the construction of planned transit facilities nor would the project exceed the capacity of the existing system. The project (under both options) would not conflict with a program plan or policy addressing transit. **(Less than Significant Impact)**

Impact TRN-2:	The project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **(Significant and Unavoidable Impact with Mitigation Incorporated)**

Based on VTA's VMT Evaluation Tool, 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 27.41 VMT per capita, which would exceed the OPR's impact threshold of 20.94 VMT per capita. Therefore, the project (under Options 1 and 2) would result in a significant VMT impact on the transportation system based on OPR's VMT impact criteria.

The project applicant would need to implement VMT reduction measures to achieve a 24 percent reduction (27.41 to 20.94) in its VMT per capita for the proposed residential project to reduce the project's VMT impact to less than significant (under Options 1 and 2). However, the available feasible mitigation measures are not capable of such reduction. The project (under Options 1 and 2) will implement a mitigation measure to incorporate project design features that reduce the VMT per capita generated by the project. These would apply to single-family detached, single-family attached, and condominium units with a management entity such as a Homeowners Association (HOA).

Mitigation Measure: The following mitigation measures would reduce the VMT per capita generated by the project.

MM TRN-2.1: During project operations, the management entity/Homeowners Association (HOA) shall provide fully (100 percent) subsidized annual VTA transit passes for all project homeowners (a maximum of one transit subsidy per residential unit, which would result in up to 269 transit passes per year). This subsidized transit program shall be approved by the City of Morgan Hill's Public Services Director or Director's designee prior to issuance of occupancy.

The project (under Options 1 and 2) would also incorporate the following design features to reduce project VMT by improving pedestrian connections and providing bicycle facilities:

- The project (under Options 1 and 2) will 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 development in the future. The project proposes continuous sidewalks along the project frontages (under Options 1 and 2). The proposed frontage improvements along Mission View Drive, Half Road, and De Paul Drive include sidewalk improvements.

- The proposed project (under Options 1 and 2) will include 64 bicycle parking spaces distributed through the proposed development.

Although implementation of the above mitigation measure MM TRN-2.1 could reduce the number of trips generated by the project, by approximately 10 trips per day, the project's overall VMT would remain at 27.41 per resident. The project design features would encourage the use of pedestrian and bicycle facilities. However, VMT would continue to be above the 20.94 VMT per capita threshold. The project, therefore, would result in a significant and unavoidable VMT impact (under Options 1 and 2). **(Significant and Unavoidable Impact with Mitigation)**

Impact TRN-3:	The project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). **(Less than Significant Impact)**

The project would include the extension of DePaul Drive to the south with termination at a cul-de-sac just north of Half Road. Access to the project site would be provided via a full access driveway along Mission View Drive and two full access driveways along the DePaul Drive extension. Based on Caltrans requirements, the available sight distance of vehicle drivers exiting the site at the project driveways on DePaul Drive and Mission View Drive would be at least 250 feet for DePaul Drive to 300 feet on Mission View Drive, which reduces the risk of collision at the project driveways.

The proposed project is designed in accordance with the City of Morgan Hill design standards (under Options 1 and 2). The project design does not include sharp curves or dangerous intersections that could result in safety hazards. Nor does the project propose incompatible uses, such as farm equipment. 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 (under Options 1 and 2). **(Less Than Significant Impact)**

Impact TRN-4:	The project would not result in inadequate emergency access. **(Less than Significant Impact)**

Emergency vehicles would access the project site via the driveway along Mission View Drive and two driveways along the DePaul Drive extension. Internal streets would provide continuous access to each area of residential units. The travel way on the internal streets would be at least 20 feet wide. The 20-foot-wide internal roadways would provide emergency vehicles (e.g., fire trucks) sufficient space to access each of the residential units on-site. Therefore, the project would not result in inadequate emergency access (under Options 1 and 2). **(Less Than Significant Impact)**

4.17.2.2 *Cumulative Impacts*

Impact TRN-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant transportation impact. **(Significant and Unavoidable Cumulative Impact)**

The scale of cumulative analysis for VMT impacts is citywide and based on the planned growth in the General Plan, which includes 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 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. VMT per capita with General Plan build-out will decrease, when compared to 2015 existing conditions, which is primarily attributed to the placement of new housing near jobs and the placement of more jobs near housing.

With the passage of SB 743, the City is now applying numeric thresholds to evaluate the significance of VMT impacts, which as noted above, for residential uses is 15 percent below the existing citywide average, or 20.94 VMT per capita. As discussed under Impact TRN-2, the project site is located in a high VMT area with an existing VMT per capita of 30.46 for residential uses in the area, while citywide VMT per capita is 24.64. As described above, the project (under Options 1 and 2) would generate VMT per capita above the impact threshold of 20.94 VMT per capita, resulting in a significant and unavoidable project-level VMT impact. Since the 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 (under Options 1 and 2). Apart from the specific issue of VMT, the cumulative projects would be designed in accordance with the City's design standards and would not result and would not create dangerous conditions and would not impede emergency access, including access from DePaul Drive to the project site and adjacent Redwood Tech sites. **(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 vehicle miles traveled (VMT), the following discussion is included for informational purposes in accordance with the City's Level of Service General Plan Policy TR-3.4.

4.17.3.1 *Project Trip Generation*

Trip generation estimates are based on trip generation rates from the Institute of Transportation Engineers' (ITE's) *Trip Generation Manual*, Tenth Edition. Although the project would consist of 149 condominium units, 64 duet (single-family attached) units, and 56 detached units, trip generation rates for single-family detached housing (which tend to be higher than attached unit housing) were used to estimate the number of trips that would be generated by all proposed residential units. The trip generating characteristics of the different residential types would be similar due to the limited transit services and employment opportunities within Morgan Hill. Based on the estimated trip rates and the project size, the proposed project would generate 2,539 daily trips, with 199 trips (50 inbound and 149 outbound) occurring during the AM peak hour and 266 trips (168 inbound and 98 outbound) occurring during the PM peak hour (under Options 1 and 2).

The estimates for the proposed project are shown in Table 4.17-1 below (under Options 1 and 2).

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)[1]	269 dwelling units	9.44	2,539	50	149	199	168	98	266

[1]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 level of service 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 TRAFFIX is also the CMP-designated intersections level of service methodology, the City of Morgan Hill methodology employs the CMP defaults 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, with the exception of intersections and freeway zones listed in General Plan Policy TR-3.4.

According to the City of Morgan Hill level of service guidelines, a development would create an adverse effect on traffic conditions at a signalized intersection if for either peak hour:

- The level of service at the intersection degrades from an acceptable level (LOS D or LOS E as identified above) under existing conditions to an unacceptable level (LOS E or F) under project conditions, or

- The level of service at the intersection is an unacceptable level (LOS E or F as identified above) under existing conditions and the addition of project trips causes the average critical delay to increase by four (4) or more seconds and the volume-to-capacity ratio (V/C) to increase by 0.01.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, an adverse effect is an increase in the critical V/C value by 0.01 or more.

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.

Congestion Management Program Freeway Segment Standards

The City is required to conform to the requirements of the Valley Transit Authority (VTA), which establishes a uniform program for evaluating the transportation effects of land use decisions on the designated CMP Roadway System. The VTA's Congestion Management Program (CMP). Based on CMP criteria, a project would fail to meet the CMP freeway segment standard if the additional project traffic caused one of the following during either peak hour:

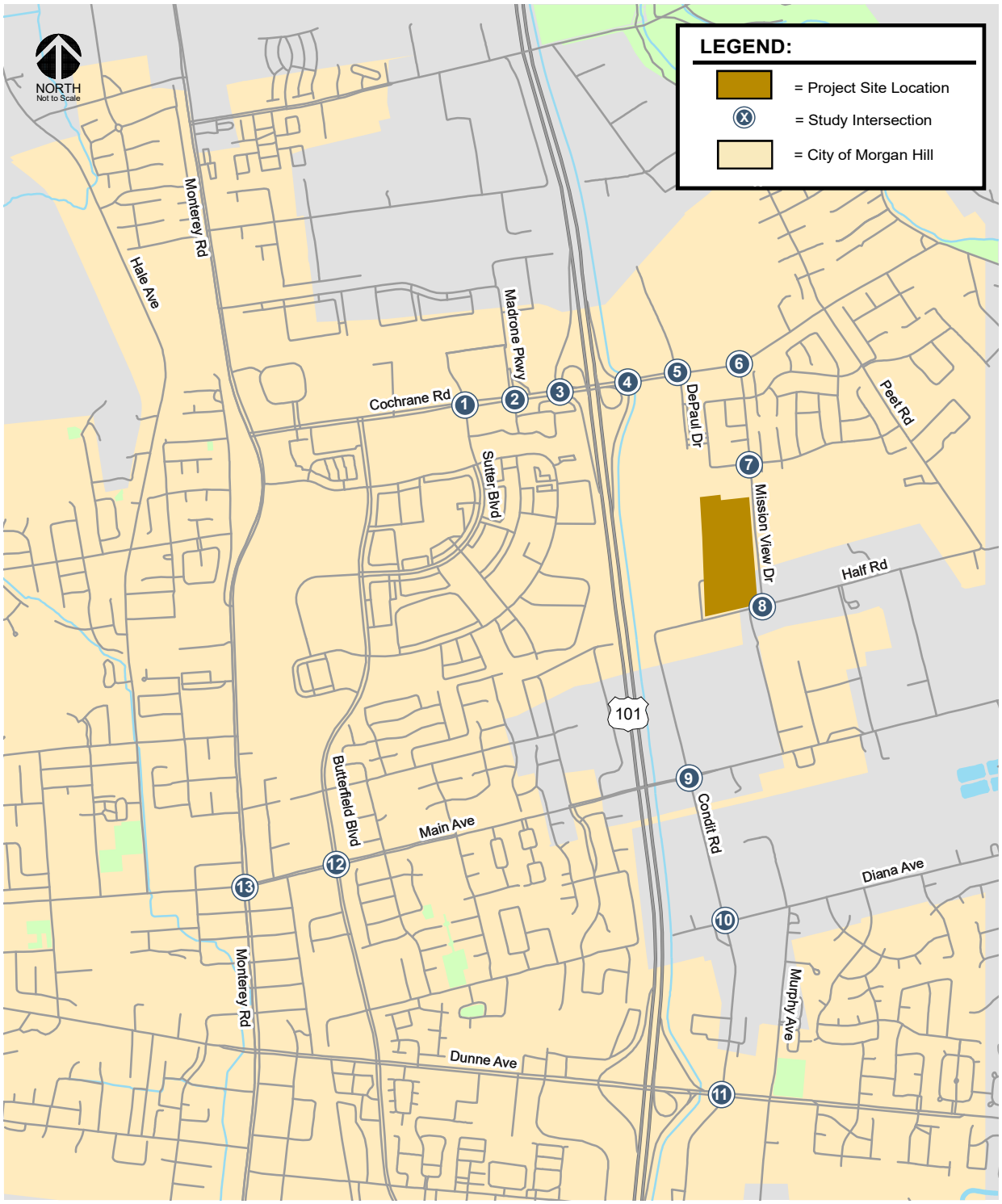
- The level of service on the freeway segment is an unacceptable LOS F under existing conditions, and the number of project trips on that segment constitutes at least one percent of capacity on that segment.

- The level of service on the freeway segment degrades from an acceptable LOS E or better under existing conditions to an unacceptable LOS F under existing plus project conditions

4.17.3.3 *Intersection Level of Service Analysis*

Level of Service Study Intersections

The traffic operations and level of service analysis includes an analysis of AM and PM peak-hour traffic conditions for ten signalized intersections and three unsignalized intersections. The study intersections are identified on Figure 4.17-3 and Table 4.17-2.



Source: Hexagon Transportation Consultants, Inc., December 23, 2020.

STUDY INTERSECTIONS | FIGURE 4.17-3

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 existing peak-hour traffic volumes on the existing roadway network. New traffic counts could not be collected due to the current COVID-19 pandemic affecting normal travel traffic patterns. Therefore, traffic counts collected prior to the COVID-19 pandemic in 2018-2019 were used in this analysis, as they are more representative of typical conditions than current traffic volumes.

- **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 to determine the project's adverse effects on the study intersections.

- **Scenario 3**: *Year 2030 Cumulative Conditions*. Year 2030 cumulative 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 the 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 to determine potential cumulative adverse effects on the study intersections.

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 (under Options 1 and 2).

Table 4.17-2: Study Intersections Level of Service – Existing Plus Project Conditions								
No.	Intersection	Peak Hour	Existing		Existing Plus Project			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Critical V/C
1	Cochrane Road and Sutter Boulevard	AM	17.2	B	17.2	B	0.0	0.002
		PM	17.9	B	18.0	B	0.0	0.003
2	Cochrane Road and Madrone Parkway/Cochrane Plaza	AM	19.1	B	19.2	B	-3.0	-0.003
		PM	31.4	C	31.4	C	0.0	0.005
3	Cochrane Road and U.S. 101 Southbound Ramps	AM	12.8	B	13.0	B	0.2	0.016
		PM	16.5	B	17.6	B	1.2	0.053
4	Cochrane Road and U.S. 101 Northbound Ramps	AM	8.6	A	8.3	A	0.0	0.043
		PM	11.3	B	11.2	B	0.2	0.037
5	Cochrane Road and De Paul Drive	AM	17.7	B	18.1	B	0.4	0.066
		PM	18.7	B	19.1	B	0.2	0.048
6	Cochrane Road and Mission View Drive	AM	23.0	C	24.8	C	3.1	0.019
		PM	15.7	B	16.3	B	0.9	0.021
7	Mission View Drive and Avenida De Los Padres (unsignalized)	AM	13.5	B	13.9	B	N/A	N/A
		PM	12.5	B	13.0	B	N/A	N/A
8	Mission View Drive and Half Road (unsignalized)	AM	13.6	B	14.0	B	N/A	N/A
		PM	22.6	C	34.0	D	N/A	N/A
9	Main Avenue and Condit Road	AM	27.6	C	28.9	C	1.6	0.032
		PM	26.1	C	27.3	C	1.4	0.031
10	Condit Road and Diana Avenue (unsignalized)	AM	14.7	B	14.9	B	N/A	N/A
		PM	13.6	B	14.0	B	N/A	N/A
11	East Dunne Avenue and Condit Road	AM	42.4	D	43.0	D	0.7	0.010
		PM	28.2	C	28.3	C	0.2	0.015
12	Butterfield Boulevard and Main Avenue	AM	27.6	C	27.9	C	0.1	0.001
		PM	29.8	C	30.3	C	0.8	0.013
13	Monterey Road and Main Avenue	AM	44.2	D	44.5	D	0.4	0.009
		PM	45.1	D	45.5	D	0.6	0.009

The results of the level of service analysis show that, when measured against the City level of service standards, all of the study intersections are projected to operate at acceptable levels of

service, LOS D or better, under existing plus project conditions during each of the peak hours analyzed.

Based on the signal warrant analysis for the three unsignalized intersections (Intersection Numbers 7, 8, and 10 in Table 4.17-2), the Condit Road and Diana Avenue intersection (Intersection No. 10) is projected to have volumes that would warrant signalization. However, the intersection is projected to operate within the applicable level of service standards. Therefore, the project would not have an adverse effect on operations at the intersection. All other unsignalized study intersections are projected to have traffic conditions that fall below the thresholds that warrant signalization.

Freeway Segment Level of Service Analysis

Existing Plus Project Conditions

The effects of the proposed project on freeway segments in the vicinity of the project area following the current methodologies, as outlined in the VTA Transportation Impact Analysis Guidelines, were completed. Traffic volumes on the study freeway segments under existing plus project conditions were estimated by adding project trips to the existing volumes obtained from the 2018 CMP Monitoring and Conformance Report. Based on the results of the freeway segment level of service analysis, 10 directional mixed-flow lanes and one directional HOV lane on the freeway segments analyzed are projected to operate at an unacceptable LOS F during at least one peak hour under existing conditions and would continue to operate at LOS F conditions with the addition of traffic due to proposed project (under Options 1 and 2). All other freeway segments analyzed operate at LOS E or better conditions during the AM and PM peak hours. The affected freeway segments and peak hours are described below:

Mixed-Flow Lanes

- U.S. 101, Northbound between San Martin Avenue and Tennant Avenue (AM peak hour)
- U.S. 101, Northbound between Tennant Avenue and East Dunne Avenue (AM peak hour)
- U.S. 101, Northbound between East Dunne Avenue and Cochrane Road (AM peak hour)
- U.S. 101, Northbound between Cochrane Road and Coyote Creek Drive (AM peak hour)
- U.S. 101, Southbound between SR-85 and Bailey Avenue (PM peak hour)
- U.S. 101, Southbound between Bailey Avenue and Coyote Creek Golf Drive (PM peak hour)
- U.S. 101, Southbound between Coyote Creek Golf Drive and Cochrane Road (PM peak hour)
- U.S. 101, Southbound between Cochrane Road and East Dunne Avenue (PM peak hour)
- U.S. 101, Southbound between East Dunne Avenue and Tennant Avenue (PM peak hour)
- U.S. 101, Southbound between Tennant Avenue and San Martin Avenue (PM peak hour)

HOV Lane

- U.S. 101, Southbound between Coyote Creek Golf Drive and Cochrane Road (PM peak hour)

Improvements to freeway segment operations would require freeway widening to construct additional through lanes, thereby increasing freeway capacity. VTA's Valley Transportation Plan (VTP) 2040 identifies freeway express lane projects along U.S. 101 between Cochrane Road and Whipple Avenue. The planned improvements include conversion of the existing HOV lane to an express lane and the construction of a second express lane in each direction on U.S. 101. These improvements would increase the capacity of the freeway and help to address the deficiency in freeway operations. However, it is not feasible for an individual development project to bear responsibility for implementing such extensive transportation system improvements due to constraints in the acquisition and cost of right-of-way. No comprehensive project to add through lanes has been developed by Caltrans or VTA for individual projects to contribute to. Therefore, the project would not be required to contribute toward improvements of freeway segments (under Options 1 and 2).

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 no project traffic volumes were estimated using a growth method that involved adding a proportion (75 percent) of the 2035 projected growth, with 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 without and with project are shown in Table 4.17-3.

Table 4.17-3: Year 2030 Cumulative with Project Conditions										
No.	**LOS Standard**	**Peak Hour**	**Existing**		**Year 2030 Cumulative without Project**		**Year 2030 Cumulative with Project**			
			Average Delay[1]	**LOS**	**Average Delay[1]**	**LOS**	**Average Delay[1]**	**LOS**	**Increase in Critical Delay**	**Increase in Critical V/C**
1	Cochrane Road and Sutter Boulevard	AM	17.2	B	17.8	B	17.8	B	0.1	0.002
		PM	17.9	B	17.9	B	18.0	B	0.0	0.002
2	Cochrane Road and Madrone Parkway/Cochrane Plaza	AM	19.1	B	19.1	B	19.1	B	0.0	0.003
		PM	31.4	C	32.3	C	32.3	C	0.0	0.005
3	Cochrane Road and U.S. 101 Southbound Ramps	AM	12.8	B	14.4	B	14.7	B	0.4	0.016
		PM	16.5	B	20.3	C	22.9	C	3.9	0.053
4	Cochrane Road and U.S. 101 Northbound Ramps	AM	8.6	A	7.8	A	7.7	A	0.1	0.043
		PM	11.3	B	11.7	B	11.9	B	0.5	0.037
5	Cochrane Road and De Paul Drive	AM	17.7	B	25.1	C	25.8	C	0.8	0.066
		PM	18.7	B	22.8	C	25.4	C	5.0	0.080
6	Cochrane Road and Mission View Drive	AM	23.0	C	**146.5**	**F**	**156.7**	**F**	**15.8**	**0.019**
		PM	15.7	B	**60.1**	**E**	**68.2**	**E**	**11.7**	**0.021**
7	Mission View Drive and Avenida De Los Padres (unsignalized)	AM	13.5	B	28.5	D	30.1	D	N/A	N/A
		PM	12.5	B	**38.5**	**E**	**42.1**	**E**	**N/A**	**N/A**

Table 4.17-3: Year 2030 Cumulative with Project Conditions										
No.	**LOS Standard**	**Peak Hour**	**Existing**		**Year 2030 Cumulative without Project**		**Year 2030 Cumulative with Project**			
			Average Delay[1]	**LOS**	**Average Delay[1]**	**LOS**	**Average Delay[1]**	**LOS**	**Increase in Critical Delay**	**Increase in Critical V/C**
8	Mission View Drive and Half Road (unsignalized)	AM	13.6	B	**>250**	**F**	**>250**	**F**	**N/A**	**N/A**
		PM	22.6	C	**>250**	**F**	**>250**	**F**	**N/A**	**N/A**
9	Main Avenue and Condit Road	AM	27.6	C	47.8	D	53.7	D	7.7	0.032
		PM	26.1	C	**80.2**	**F**	**89.6**	**F**	**11.7**	**0.031**
10	Condit Road and Diana Avenue (unsignalized)	AM	14.7	B	**36.3**	**E**	**38.2**	**E**	**N/A**	**N/A**
		PM	13.6	B	26.4	D	27.8	D	N/A	N/A
11	East Dunne Avenue and Condit Road	AM	42.4	D	63.6	E	65.7	E	2.7	0.010
		PM	28.2	C	32.7	C	33.0	C	0.7	0.015
12	Butterfield Boulevard and Main Avenue	AM	27.6	C	30.9	C	31.3	C	0.7	0.008
		PM	29.8	C	36.0	D	36.8	D	1.5	0.013
13	Monterey Road and Main Avenue	AM	44.2	D	47.6	D	48.0	D	0.6	0.009
		PM	45.1	D	49.1	D	49.8	D	0.8	0.009

[1] The reported delay and corresponding level of service for signalized intersections represent the average delay for all approaches at the intersection.

Bold indicates unacceptable level of service or signal warrant met.

Bold and boxed indicate adverse effect on operations.

The results of the level of service analysis show the following five intersections would operate at unacceptable levels of service (LOS E or F) during Year 2030 Cumulative without and with the project (under Options 1 and 2) during at least one peak hour when measured against the City of Morgan Hill's level of service standards of LOS D:

6. Cochrane Road and Mission View Drive (AM and PM peak hours)
7. Mission View Drive and Avenida De Los Padres (unsignalized) (PM peak hour)
8. Mission View Drive and Half Road (unsignalized) (AM and PM peak hours)
9. Main Avenue and Condit Road (PM peak hour)
10. Condit Road and Diana Avenue (unsignalized) (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 the project.

Based on the signal warrant analyses, the following two intersections are projected to have traffic volumes, under Year 2030 Cumulative without and with project, which would meet thresholds which warrant signalization during at least one peak hour:

8. Mission View Drive and Half Road (unsignalized) (AM and PM peak hours)
10. Condit Road and Diana Avenue (unsignalized) (AM and PM peak hours)

All other unsignalized study intersections are projected to have traffic conditions that fall below the thresholds that warrant signalization. Based on the City's level of service standards, the proposed project would have an adverse effect on intersection operations at the following four study intersections.

6. Mission View Drive and Cochrane Road (AM and PM peak hours)
8. Mission View Drive and Half Road (unsignalized) (AM and PM peak hours)
9. Condit Road and Main Avenue (PM peak hour)
10. Condit Road and Diana Avenue (unsignalized) (AM peak hour)

As a result, the following improvements to the above intersections that would be adversely affected by the project (under Year 2030 Cumulative with the project) would be implemented.

6. Cochrane Road and Mission View Drive

The Cochrane Road and Mission View Drive intersection is projected to operate at an unacceptable LOS F and E during the AM and PM peak hours, respectively, under Year 2030 Cumulative without project conditions. Traffic associated with the proposed project (under Options 1 and 2) would cause the critical delay to increase by 15.8 seconds in the AM and 11.7 seconds in the PM, and the volume-to-capacity ratio (V/C) to increase by 0.019 and 0.021 seconds during both the AM and PM peak hours, respectively. This constitutes an adverse effect on intersection operations based on the City's level of service standards.

- **Condition of Approval**: The project applicant shall pay a fair share contribution toward the installation of a second northbound left-turn lane on Mission View Drive and a cycle length adjustment to improve intersection operations. The addition of the second northbound left-turn lane will require lane striping and signal modification but will fit within the existing curb-to-curb pavement width on Mission View Drive. The cost to install the required traffic signal modification, improvements, and striping required for the addition of the second left-turn lane shall be reimbursed to the developer, by agreement or credits, and shall be issued on a per unit basis through the traffic impact fees to be determined by the Public Services Director or Director's designee.

Implementation of the above Condition of Approval improvement would improve the intersection's level of service to LOS C during both the AM and PM peak hours under Year 2030 Cumulative with project conditions. This improvement would occur within the existing right of way and would not result in a significant environmental impact (e.g., removal of a significant number of trees).

8. Mission View Drive and Half Road

The Mission View Drive and Half Road 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, based on the peak hour traffic signal warrant checks, this intersection would have traffic volumes that meet thresholds that warrant signalization during both the AM and PM peak hours under Year 2030 Cumulative without and with project conditions. This constitutes an adverse effect on intersection operations based on the City's level of service standards.

- **Condition of Approval:** The project applicant shall pay a fair share contribution toward the installation of a signal at the Mission View Drive and Half Road intersection.

Implementation of a traffic signal at this location would improve the level of service to LOS C during both the AM and PM peak hours under Year 2030 Cumulative with project. The installation of a signal would not result in significant environmental impacts since the installation would occur within the existing right-of-way.

9. Main Avenue and Condit Road

The Main Avenue and Condit Road intersection is projected to operate at an unacceptable LOS F during the PM peak hour under Year 2030 Cumulative without project conditions. Traffic associated with the proposed project would cause the critical delay to increase by 11.7 seconds and the V/C ratio to increase by 0.031 during the PM peak hour. This constitutes an adverse effect on intersection operations based on the City of Morgan Hill's level of service standards.

- **Condition of Approval**: The project applicant shall pay a fair share contribution toward the addition of an exclusive southbound right-turn lane on Condit Road. The addition of the right-turn lane will require signal modifications and lane striping on the southbound approach.

Implementation of the above Condition of Approval would improve the intersection's level of service to LOS D during the PM peak hour under Year 2030 Cumulative with project conditions. Since this intersection is under the jurisdiction of Santa Clara County, the improvements will require County approval. Therefore, it is not guaranteed that the above improvement will be implemented. The improvement would occur within the existing right of way and would not result in significant environmental impacts.

10. 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 without and with project conditions. Additionally, based on the peak-hour traffic signal warrant checks, this intersection would have traffic volumes that meet thresholds that warrant signalization during the AM peak hour under Year 2030 Cumulative without and with project conditions. This constitutes an adverse effect on intersection operations based on the City's level of service standards.

- **Condition of Approval:** The project applicant shall pay a fair share contribution toward the installation of a signal at the Condit Road and Diana Avenue intersection.

Implementation of a traffic signal at this location would improve the level of service to LOS B during both the AM peak hour under Year 2030 Cumulative with project. The installation of a signal would not result in significant environmental impacts since the improvement would occur within the existing right-of-way.

4.18 TRIBAL CULTURAL RESOURCES

The following discussion is based, in part, on an Archaeological Resources Assessment Report, prepared by *Basin Research Associates* in June 2019. The Archaeological Resources Assessment Report contains sensitive information and is available for review by qualified persons at Morgan Hill City Hall.

As shown in Table 2.2-1, NOP comments on the subject of tribal cultural resources were received from the Native American Heritage Commission. The comments recommended consultation with California Native American tribes.

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.

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts due to loss of cultural resources.[96] The following policies related to cultural resources are applicable to the proposed project:

Policy 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.

Policy 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.

Policy 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.

4.18.1.2 *Existing Conditions*

As discussed in Section 4.5 Cultural Resources, the project site has a low to moderate sensitivity for archaeological resources. No tribes that are culturally affiliated with the area have requested notification of projects in the City of Morgan Hill under AB 52. However, in May 2019, the Native American Heritage Commission (NAHC) was contacted by the City and Basin Resource Associates regarding development at the project site and the adjacent property to the west of DePaul Drive (an 89-acre 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. None of the Native American individuals/groups identified tribal cultural resources on or adjacent to the site.

In July 2021, pursuant to AB 52, the Tamien Nation tribe submitted a request to be notified of all projects within the City. In August 2021, the City sent a notification of the proposed project to Tamien Nation. The tribe requested consultation with the City regarding the proposed project in September 2021 and on October 11, 2021, the City consulted with the tribe pursuant to AB 52. The results of the consultation are discussed below under Impact TCR-1.

[96] City of Morgan Hill, California (2016). "Chapter 6, Healthy Community." *City of Morgan Hill General Plan 2035.* Accessed October 27, 2020. https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId=

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 I of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision I(c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The proposed differences in storm drainage, size and depth of the underground retention basins, and construction equipment usage, when comparing Project Options 1 and 2, would not affect the conclusions for tribal cultural resources impacts. Although the construction of the underground retention basins under Option 2 would result in deeper excavation (maximum depth would be nine feet below the ground surface) than Option 1 (four feet below the ground surface), mitigation measures and the conclusions for cultural resources impacts would be the same for Project Options 1 and 2. The project would excavate to a maximum depth of 10 feet to access utilities during construction for both options.

4.18.2.1 *Project Impacts*

Impact TCR-1:	The project would 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)**

Based on consultation with Native American individuals/groups, including Tamien Nation, regarding development at the site, no known tribal cultural resources are present on-site or adjacent to the site. As a result of Tamien Nation's and the City's consultation, the tribe requested that the City include measures for reducing impacts to archaeological/tribal cultural resources, including human remains, during construction. These measures included requiring a tribal monitor on-site during construction. These measures are presented in Section 4.5.2 Cultural Resources (mitigation measure MM CUL-2.1). For this reason, the project would not cause an adverse change in the significance of tribal cultural resources (under Options 1 and 2). In the event that any tribal cultural resources are unexpectedly unearthed during construction, mitigation measure MM CUL-2.1 (if the resource is human remains) would be implemented. Implementation of the above mitigation

measure would reduce the project's impact to tribal cultural resources to less than significant (under both project options). **(Less than Significant Impact with Mitigation Incorporated)**

Impact TCR-2:	The project would not 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. **(Less than Significant Impact with Mitigation Incorporated)**

As discussed in Impact TCR-1, there are no known tribal cultural resources on-site; however, if any subsurface tribal cultural resources are unexpectedly found, the project would implement MM CUL-2.1. Therefore, the project would not cause a substantial adverse change in the significance of a tribal cultural resource (under Options 1 and 2). **(Less than Significant Impact with Mitigation Incorporated)**

4.18.2.2 *Cumulative Impacts*

Impact TCR-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant tribal cultural resources impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

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. Cumulative impacts to unknown tribal cultural resources could occur as a result of ground-disturbing activities from construction of the proposed project (under Options 1 and 2) and the Redwood Tech industrial project immediately west of the site. With the proposed project's implementation of mitigation measures and Standard Condition CUL-2 listed in Section 3.5 Cultural Resources, and the Redwood Tech project's compliance with required Conditions of Approval, the cumulative projects would result in a less than significant cumulative impact to tribal cultural resources. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

4.19 UTILITIES AND SERVICE SYSTEMS

The following discussion is based in part on a Water Supply and Demand Evaluation prepared by Todd Groundwater on April 13, 2021. A copy of this report is attached as Appendix H of this DEIR.

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 August 2016.

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

City of Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals and policies to avoid significant impacts to utilities and service systems facing the City of Morgan Hill. The following policies to reduce impacts to utilities are applicable to the proposed project:

Policy 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.

Policy SSI-14.8: **Sufficient Supply**. Ensure that new development does not exceed the water supply.

Policy 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 17 groundwater wells, 12 potable water storage tanks, 10 booster stations, and over 180 miles of pressured pipes ranging from two to 14 inches in diameter. 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 Main Avenue and Madrone Pipeline Restoration project, completed in September 2019, restores existing water delivery infrastructure along Main Avenue, Cochrane Road, and Half Road to full operating capacity.

The City of Morgan Hill 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 2016 Urban Water Management Plan (UWMP) identified potential shortages which may occur during prolonged years of drought, however, upon implementation of water shortage contingency actions these shortages in supply can be mitigated in dry-year and multiple dry-year scenarios.[97]

The 33-acre site is mostly undeveloped and consists of grassland and boxed trees. A vacant single-family residence constructed in the 1950s is located on the southwestern section of the site. One or two private wells supply water to the residence and tree nursery. Total current groundwater use on site is approximately 18.54 acre-feet per year (AFY), as shown in Table 4.19-1 below.

Table 4.19-1: Current Groundwater Use On-Site

Water Use Category	Current Water Use (AFY)
Vacant Rural Residence	0.64
Containerized Trees	17.90
Total Current Water Use	**18.54**

Source: Todd Groundwater. *Half Road and Mission View Water Demand Memo*. April 13, 2021.

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.[98,99] 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.[100] 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.[101] Existing sewer utilities in the project area consist of 10-inch diameter gravity

[97] City of Morgan Hill. *2015 Urban Water Management Plan.* August 2016.
[98] City of Morgan Hill. *Sewer System Master Plan.* October 2017.
[99] City of Morgan Hill. *City Council State Report 2163: Accept Report Regarding Wastewater System Needs and Rate Study Schedule*. May 18, 2019.
[100] 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
[101] City of Morgan Hill. *Sewer System Management Plan.* Page 53. February 2018.

pipes in Cochrane Road and gravity pipes in De Paul Drive and Mission View Drive.[102] 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.[103] The project is estimated for completion by 2024. Project-level CEQA review for the project was completed by SCRWA in August 2020.

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 Lane in Gilroy, which would allow for additional wastewater deliveries to the SCRWA Wastewater Treatment Plant. The trunk sewer line is under design review.[104]

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 Madrone Channel drainage basin.[105] The Madrone Channel (managed by Valley Water) is located approximately 1,000 feet west of the site. The Madrone Channel carries stormwater runoff from the area and also functions as a groundwater recharge basin. Any water that does not infiltrate locally is conveyed from the site via stormwater pipes in Mission View Drive, De Paul Drive, and Cochrane Road to the Madrone Channel, where it is then transported to detention basins and ultimately, the Pajaro River and 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.

[102] City of Morgan Hill. *Sewer System Master Plan.* Figure ES.3. October 2017.
[103] City of Gilroy. South County Regional Wastewater Authority (SCRWA). Accessed April 23, 2021. http://www.ci.gilroy.ca.us/561/South-County-Regional-Wastewater-Authori
[104] City of Morgan Hill. City Council Staff Report 2163. February 6, 2019.
[105] City of Morgan Hill. *Storm Drainage Master Plan*. Figure 4.1. September 2018.

Other Utilities

The project site is largely vacant and electricity, natural gas, and/or telecommunication facilities serving the site are limited to the vacant residential building on-site. Refer to Section 4.6 Energy for a discussion of electricity and natural gas use of the proposed project.

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?
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?

The below impact discussion (Impact UTL-1) includes a description of post-construction stormwater management for Project Options 1 and 2. Both options would meet the City's SWMP requirements for stormwater quality, the City's Storm Drainage Master Plan standards, and SWPPP requirements. Therefore, both options would result in a less than significant impact to the City's storm drainage systems, as discussed below. Both project options would result in the same impact (less than significant) to water, sewer, wastewater treatment, and electrical/natural gas/telecommunication systems, as discussed below.

4.19.2.1 *Project Impacts*

Impact UTL-1:	The project would not 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. **(Less than Significant Impact)**

The proposed project (under Options 1 and 2) would install new on-site storm drains, water lines, and sanitary sewer lines that would connect to existing utility lines in the adjacent roadways. 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 abandon the existing water well on-site and connect to existing water lines in the surrounding roadways. New domestic water lines and fire service water lines would connect to existing 10-inch water mains on Half Road and to a new eight-inch water main on DePaul Drive. The construction of lateral connections would occur during grading and would result in minimal impacts. As is discussed under Impact UTL-2, the City has sufficient water supply with existing commitments to meet the demands of the proposed project. Therefore, 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)**

Sanitary Sewer and Wastewater Treatment

The proposed project would construct new sanitary sewer lines within the internal streets that would connect to a new eight-inch sewer line in DePaul Drive (under Options 1 and 2). The sanitary sewer line would extend from DePaul Drive and continue south to Half Road, then to Condit Road, to the existing sanitary sewer line in East Main 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 (refer to Impact UTL-3). Therefore, the project (under Options 1 and 2) would have a less than significant impact related to the relocation or construction of new wastewater treatment facilities. **(Less than Significant Impact)**

Storm Drainage

As discussed in Section 3.2 Project Description, this EIR evaluates two stormwater management options. Under Option 1, the project would include underground retention facilities designed for a 25-year, 24-hour storm event and bioretention basins that would release excess stormwater runoff to Madrone Channel. Under Option 2, the project would include underground retention facilities designed for a 100-year, 24-hour storm event, which would retain and treat stormwater on-site, with no discharge to Madrone Channel. Storm drain lines would be included on the site's internal streets and would connect to new 15-inch to 18-inch storm drain lines on DePaul Drive and an existing 15-inch storm drain on Mission View Drive.

The project, with either stormwater management option, 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. **(Less Than Significant Impact)**

Electric Power, Natural Gas, and Telecommunications

The project would connect to existing electric power, natural gas, and telecommunication lines in the project area (under Options 1 and 2). Gas and electric utilities would be extended along with De Paul Drive in coordination with PG&E. The proposed buildings would connect to existing electrical lines along Half Road. Other utilities such as fiber optic, telephone, and cable would also be extended along Half Road and into the site to service the buildings. The project would not result in a significant environmental effect from the construction or relocation of natural gas, electricity, or telecommunication utilities. **(Less than Significant Impact)**

Impact UTL-2:	The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. **(Less than Significant Impact with Mitigation Incorporated)**

Project Water Demand

The WSA memorandum prepared for the project assumed a maximum development of 33 acres and 269 residential units. Water demand factors were based on (1) the City of Morgan Hill Water System Master Plan (WSMP), which accounts for the use of water-conserving fixtures and drought tolerant landscaping in new development, and (2) typical factors based on number of units or building areas. The overall water demand of the project was calculated by averaging the values based on the two sets of demand factors. Table 4.19-2 below shows the estimated water demand of the proposed project.

Table 4.19-2: Project Buildout Water Demands

Development Type	Area[1] (acres)	Land Use	Water Use Demand Factor[2,3]	Water Demand based on WSMP net area[2] (AFY)	Water Demand based on units or building area[3] (AFY)
Single Family Detached	3.88	56 residential units	1,700 gpd/net acre or 0.2 AFY/unit	7.39	11.20
Duet Units	4.55	64 duet units	1,900 gpd/net acre or 0.2 AFY/unit	9.68	12.80
Condominiums	6.49	149 condominiums	2,300 gpd/net acre or 0.18 AFY/unit	16.72	26.82
Recreation Center	1.16	Recreation center with	3 AFY	3.00	3.00

Table 4.19-2: Project Buildout Water Demands					
Development Type	**Area[1] (acres)**	**Land Use**	**Water Use Demand Factor[2,3]**	**Water Demand based on WSMP net area[2] (AFY)**	**Water Demand based on units or building area[3] (AFY)**
		kitchenette, restrooms, and pool			
Irrigation	Included in other categories	Total of 8.16 acres of irrigated area	Estimated Total Water Use	16.21	16.21
Public and Private Right of Ways	11.80	Streets and rights of ways	Included in Irrigation category		
Open Space	5.30	Medians, parks, other landscaping	Included in Irrigation category		
Total	**33.18**	**269 units**		**33.79**	**50.82**
			Average	**42.31**	

[1] Total project area is about 31 acres but the slightly larger total in this table (33.18 acres) is conservative and could include additional public right of way areas.

[2] Gallons per day (gpd) per net acre values are from Water System Master Plan Table 3.4 column entitled: Recommended Factor (Consistent with 2015 UWMP). Used Residential Detached Medium, Residential Attached Low, and Residential Attached Medium factors.

[3] 0.20 AFY/unit for single-family homes and 0.18 AFY/unit values from Paso Robles 2015 UWMP.

[4] Estimated water use for clubhouse with kitchenette, restrooms and pool extrapolated from other similar recreational/spa centers.

[5] Irrigated area and demand is Estimated Total Water Use (ETWU) from City's Water Efficiency Checklist (Dividend Homes, 2020) and from sheet L-12 of The Crosswinds at Morgan Hill Full Submittal Drawings and Tentative Tract Map (June 8, 2020).

As shown in Table 4.19-2, the proposed project would result in a gross water demand of 42.31 acre-feet per year (AFY), or approximately 13.8 million gallons per year (under Options 1 and 2).[106] It is assumed that full buildout of the project would be completed by 2026. When considering the existing water use on-site (18.54 AFY), the project would result in a net increase in groundwater demands of about 23.77 AFY.

Total water use in the City of Morgan Hill is expected to increase to 9,155 AFY in 2025, 9,760 AFY in 2030, and 10,366 AFY in 2035. Estimates of water use increases are based on expected population growth in the City. The population increases and water demand projections of the proposed project were compared to those of the UWMP to determine if the water demand of the project is included

[106] 1 acre-foot = 325,851.43 gallons

in the UWMP planning projections. Assuming an average of 3.14occupants per residential unit, the project would result in 845 new residents. The UWMP expects a population increase of 6,800 persons to occur between 2020 and 2030; therefore, the project's population increase is accounted for in UWMP population projections. The UWMP projects an increase of 1,706 AFY for single-family and multi-family development water demand between 2020 and 2040. The project would use approximately 2.5 percent of the water demand allotted for single-family plus multi-family growth set forth in the UWMP. The project demands are consistent with the UWMP water demand projection increases for residential water use sectors; therefore, the proposed project's water demands were accounted for in the 2015 UWMP projections. As a result, there would be sufficient water supplies available to serve the project (under both project options).

Water Supply Reliability

The WSA compared supply and demand during normal, single-dry, and multiple-dry years for a 20-year projection. On an annual basis, the City has been able to provide sufficient supplies to meet demand during normal, single-dry, and multiple-dry year periods. The proposed project is included within the population and water demand projections included in the UWMP. The proposed residential uses of the project are consistent with allowable density under the current General Plan designation. Therefore, the project is included as part of the expected citywide demand increases through 2040. The UWMP found that the City will continue to adequately meet increased demands within its jurisdiction for normal, single-dry and multiple-dry year scenarios through 2040. Thus, the estimated net increase in demand on the site of 23.77 AFY (or 7,745,488 gallons per year) would be adequately supplied by existing sources.

The City's sole source of water supply, groundwater from the Llagas and Santa Clara subbasins, is a shared resource managed by Valley Water through the Sustainable Groundwater Management Act (SGMA) process. The 2018 Water Year Report for SGMA reporting concluded that Valley Water's comprehensive recharge programs continue to support a balanced long-term water budget for the two subbasins. The ongoing, active management of these Llagas and Santa Clara subbasins will ensure that there is reliable long-term supply of water for the proposed project (under Options 1 and 2). **(Less than Significant Impact)**

Impact UTL-3:	The project would not 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. **(Less than Significant Impact)**

The proposed project (under Options 1 and 2) would generate approximately 32,106 gallons of wastewater per day (or 0.12 acre-feet per day).[107] As discussed in Section 4.19.1.2 Existing Conditions, the SCRWA Wastewater Treatment Plant, which serves the Cities of Morgan Hill and

[107] 42.31 AFY = 13,786,774 gallons per year/365 days = 37,772 gallons of water per day. 1 AF = 325,851.43 gallons. Based on 85 percent of water demand, wastewater generated by the project would be approximately 32,106 gallons per day.

Gilroy, has approximately 0.8 mgd of remaining capacity allocated for the City of Morgan Hill. The project's wastewater flows alone would not cause the Plant to exceed capacity. The proposed project would not increase demand 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 demands of the project (under Options 1 and 2). **(Less than Significant Impact)**

Impact UTL-4:	The project would not 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. **(Less than Significant Impact with)**

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.[108,109] 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 2106.[110] The project would generate approximately 188 tons of solid waste per year, or 1,030 pounds per day.[111] 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 be consistent with the state's solid waste reduction goal 75 percent by 2025 (under Options 1 and 2). The proposed project uses would be required to direct and recycle waste consistent with federal, state, and local requirements. Thus, the project would not impair the attainment of solid waste reduction goals. **(Less than Significant Impact)**

Impact UTL-5:	The project would not be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste. **(No Impact)**

As discussed under Impact UTL-4, the project (under Options 1 and 2) would comply with local, state, and federal regulations related to solid waste; therefore, the project (under both project options) would not conflict with regulations related to solid waste. **(No Impact)**

[108] CalRecycle. *SWIS Facility Detail: Kirby Canyon Landfill (43-AN-0008)*. Accessed August 26, 2022. https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/3393.
[109] 1 cubic yard = 0.27 tons.
[110] 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.
[111] Illingworth & Rodkin, Inc. *The Crosswinds at Morgan Hill Air Quality & Greenhouse Gas Assessment.* CalEEMod Results. May 12, 2022. 171 metric tons per year * 1.102 tons per metric ton = 188 tons per year. 1 ton is 2,000 pounds. 188 tons per year = 376,000 pounds per year / 365 days/year = 1,030 pounds per day.

4.19.2.2 *Cumulative Impacts*

Impact UTL-C:	The project would not result in a cumulatively considerable contribution to a cumulatively significant utilities and service systems impact. **(Less than Significant Cumulative Impact)**

The individual impacts of the project on utilities and service systems have all been evaluated with respect to the cumulative conditions of the City's water, wastewater, stormwater, and solid waste infrastructure upon General Plan buildout. It was determined that the proposed project (under Options 1 and 2), in combination with expected development in the City, would not result in significant impacts to utilities. As discussed in Section 4.19.1.2 Existing Conditions, 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 (under Options 1 and 2). Environmental effects of the plant expansion were evaluated by SCRWA in an Initial Study/Mitigated Negative Declaration in August 2020.

Cumulative projects in the City will 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 will be made to ensure that the City's overall system is not impacted by the combined effects of growth. For these reasons, 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 *Existing Conditions*

The project site is located in a rural and suburban area of Morgan Hill and is designated as a low fire hazard severity zone in a local responsibility area.[112]

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?

The proposed differences in storm drainage, size and depth of the underground retention facilities, and construction equipment usage when comparing Project Options 1 and 2 would not affect the conclusions for wildfire impacts, as discussed below. The project (under Options 1 and 2) would not be near or in a state responsibility areas or lands classified as very high fire hazard severity zones.

4.20.2.1 *Project 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 (under Options 1 and 2) would not result in wildfire impacts. **(No Impact)**

4.20.2.2 *Cumulative Impacts*

The geographic areas for cumulative wildfire are areas within or adjacent to a wildfire hazard zone. The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. Since the project (under Options 1 and 2) would have no impact related to wildfire hazards, the project cannot contribute to cumulative wildfire impacts. Therefore, the

[112] California Public Utilities Commission. "CPUC Fire Threat Map". Accessed April 5, 2021. http://cpuc_firemap2.sig-gis.com/.

project would not result in a cumulative wildfire impact under both project options. **(No Cumulative Impact)**

SECTION 5.0 GROWTH-INDUCING IMPACTS

Impact GRO-1:	The project would not foster or stimulate significant economic or population growth in the surrounding environment. **(Less than Significant Impact)**

The California Environmental Quality Act (CEQA) Guidelines require that an Environmental Impact Report (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 (under Options 1 and 2) proposes development on underutilized parcels of land. The project site is designated as Residential Attached Low in the Morgan Hill 2030 General Plan and is zoned as Residential Attached Low Density.

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 (under Options 1 and 2) 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 focuser or stimulate substantial economic or population growth in the surrounding environment (under Options 1 and 2).

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 (under Options 1 and 2). 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 (under Options 1 and 2).

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, as well as efficient use of existing roadways and infrastructure within the City limits. Although the project would commit future generations to more development on this site, the project would benefit the City and the region by providing residential development with proximity to regional transportation systems (under Options 1 and 2).

6.3 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Implementation of the project would result in the development of a potentially usable agricultural property. Irreversible environmental changes associated with the modification of the project site also include the installation of utility and roadway infrastructure. The mitigation measures outlined in this Draft EIR would reduce all such potential irreversible or nearly irreversible effects to less than significant levels. Impacts that cannot be mitigated to less than significant levels are discussed 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 (under Options 1 and 2). 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.

Impact AG-1:	The project would 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. **(Significant and Unavoidable Impact with Mitigation Incorporated)**

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 is designated as Prime Farmland, Unique Farmland, and 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.

Please refer to Section 4.1 Agriculture and Forestry Resources for the analysis and mitigation measures.

Impact TRN-2:	The project would conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **(Significant and Unavoidable Impact with Mitigation Incorporated)**

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 27.41 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 carshare and school pool programs to reduce VMT. Implementation of the above mitigation measures would reduce the project's VMT per capita to 24.37. 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 the analysis and mitigation measures.

SECTION 8.0 ALTERNATIVES

8.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (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. The 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 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, 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 are 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 3.3, the applicant's objectives for the project are as follows:

- Provide market-rate and below-market rate housing, as envisioned in the City of Morgan Hill General Plan.
- Create a visually appealing pedestrian corridor along the Mission View Drive and Half Road frontages.
- Implement improvements to provide private vehicular and pedestrian circulation.
- Increase passive and active open space throughout the project site.

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 33 acres and, accordingly, an alternative site would need to be at least of comparable size, within an area of Morgan Hill close to the U.S. 101 and have adequate transit access, roadway access, and utility capacity to serve the development proposed (under Options 1 and 2). 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 33 acres in size;
- Located near transit and a mix of land uses that would encourage use of non-automobile modes of travel;
- 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 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. Since no suitable alternative site was found that could meet the basic objectives of the project, where significant impacts would be reduced, a feasible location alternative was not identified, and it is not evaluated further.

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 – Existing General Plan/Zoning Development Alternative
- Reduced Footprint: Agricultural Preservation 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

The following alternatives analysis applies to both Project Options 1 and 2.

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, fallowed agricultural fields, and boxed trees. A vacant single-family residence is 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 for the No Project Alternative

The No Project Alternative would maintain existing site conditions, and return the site to active agricultural uses, and thereby avoid all of the project's environmental impacts, including the significant unavoidable impacts related to agriculture (conversion of Prime Farmland) 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 hazardous materials impacts, would also be avoided under the No Project Alternative.

Relationship to Project Objectives for the No Project Alternative

The No Project 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 below market-rate housing consistent with the General Plan. Additionally, this alternative would not meet the applicant's objectives of implementing improvements for vehicular and pedestrian circulation, nor would it increase passive and open recreational park space.

Conclusion

The No Project Alternative is an environmentally superior alternative to the proposed project. Because the No Project Alternative would not result in any new development on the site, this alternative would avoid all environmental impacts of the project. This 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.

8.6.1.2 *No Project - Existing General Plan/Zoning Development Alternative*

The General Plan EIR assumes that the project site will be developed in conformance with the existing General Plan designation of Residential Attached Low (six to 16 du/ac). The maximum development allowed at the residential site, based on the maximum General Plan land use designation density of 16 du/ac, is 448 dwelling units (16 du/ac x 28 acres of residential area).[113] Year 2035 General Plan traffic forecasts include land use growth and transportation improvements associated with the buildout of the City's General Plan. The 2035 General Plan forecasts assumed trips associated with 345 residential units (approximately 75 percent of the allowed 448 dwelling units allowed per the adopted General Plan land use for the project site) (based on the City's Travel Demand Forecasting [TDF] Model). The project proposes to construct a total of 269 residential units (149 condominiums, 64 duet units, and 56 single-family attached units) consistent with the site's existing General Plan Land Use Designation and zoning district of Residential Attached Low Density (under Options 1 and 2).

Table 8.6-1 provides a trip generation comparison with the residential development assumed using General Plan 2035 Transportation Demand Forecasting (TDF) model and the proposed project.

[113] The proposed residential area is approximately 28 acres. The five acres is designated for the construction of DePaul Drive.

Table 8.6-1: Project Trip Generation Estimates									
Land Use	**Size**	**Daily**		**AM Peak Hour**			**PM Peak Hour**		
		Rate	**Trips**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
General Plan 2035 Land Use									
Single-Family Detached Housing (ITE LU #210)[1]	345 dwelling units	9.44	3,257	64	191	**255**	215	127	**342**
Proposed Land Use									
Single-Family Detached Housing (ITE LU #210)[1]	269 dwelling units	9.44	2,539	50	149	**199**	168	98	**266**
Difference in Trips (General Plan Allowable Land Uses - Proposed Project)	--	--	*718*	*14*	*42*	***56***	*47*	*29*	***76***
[1] Source: ITE Trip Generation Manual, 10th Edition 2017									

Comparison of Environmental Impacts

Assuming the site is developed according to the existing General Plan land use designations, the No Project/Existing General Plan/Zoning Alternative would result in 3,257 daily trips with 255 trips during the AM peak hour and 342 during the PM peak hour.

When compared to the proposed project, the No Project/Existing Plan Alternative would result in 718 more daily trips, 56 more AM peak hour trips, and 76 more PM peak hour trips. Since the Existing General Plan/Zoning alternative would result in more daily trips than the proposed project, this alternative would result in higher mobile operational criteria pollutant and GHG emissions. Given the increase vehicle traffic, the No Project/Existing Plan alternative would slightly increase roadway traffic noise. This alternative would also increase the number of residents by approximately 236 compared to the proposed project. As a result, this alternative has greater impacts on water, sanitary sewer, and solid waste facilities. The No Project/Existing General Plan/Zoning Alternative would result in the same VMT as the proposed project because the project area is already at the VMT threshold defined by the VTA VMT tool. The density threshold is built into the VMT methodology and tool, and varies based on surrounding land uses. The maximum density for the project area is approximately 250 units. Thus, VMT is reduced when increasing the number of units up to 250 units, and there is no further reduction when exceeding the 250-unit threshold.[114] 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.

[114] Personal Communications. Del Rio, Robert, Hexagon Transportation Consultants. RE: Crosswinds Project Traffic Questions. August 23, 2022.

Similar to the proposed project (Options 1 and 2), the No Project/Existing General Plan/Zoning Alternative would still likely entail development activity across the majority of the project site and result in similar site disturbance. Therefore, the No Project/Existing Plan Alternative will have impacts similar to the proposed project related to aesthetics, farmland conversion, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and tribal cultural resources.

Relationship to Project Objectives

The No Project - Existing General Plan/Zoning Alternative could achieve all of the project objectives including providing market-rate and below-market rate housing, implementing improvements to provide private vehicular and pedestrian circulation, and increase passive and active open space throughout the project site.

Conclusion

The No Project - Existing Plan Alternative would meet the project's objectives, but would not be environmentally superior, and would increase the severity of most operational impacts.

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 (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 16 acres of Prime Farmland (western portion of the site) and 17 acres of Grazing Land (eastern portion of the site). Reducing the footprint of the site so that the residential development is only on the eastern portion of the site (Grazing Land) and retaining the western 16 acres of Prime Farmland for agriculture would avoid the significant impact to Prime Farmland. This alternative would not require the extension of DePaul Drive since residents would access the site on Mission View Drive (adjacent to the eastern portion of the site), although DePaul Drive may still be extended in connection with the Redwood Tech industrial project to the west. The project's footprint would be reduced by approximately 50 percent and the number of residences would be reduced to approximately 135 units. This alternative would avoid significant impacts to Prime Farmland.

Comparison of Impacts

The project would result in a significant and unavoidable impact to agricultural resources as it results in the loss of 16 acres of Prime Farmland. The Reduced Footprint Agricultural Preservation Alternative would not include development on Prime Farmland and, therefore, would avoid the significant impact to agricultural resources. This alternative would require a reduction of 50 percent

of the project units to maintain the same mix of unit types, site layout, and project amenities as the proposed project, but on half the site acreage. To maintain the full unit count on half the site acreage would require a substantially denser residential unit type and site layout.

As described in Section 4.17, Transportation, the proposed project would result in a significant and unavoidable VMT impact with and without mitigation (27.41 VMT per capita without mitigation and 24.37 VMT per capita with mitigation). Given the significant and unavoidable VMT impact is based on the location of the site (e.g., lack of jobs and transit in the City), this alternative would also result in a significant unavoidable VMT impact, as the units developed on the portion of the site mapped as less important Grazing 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 CO_2e/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 half 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 half, the water and 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 less 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 have impacts similar to the proposed project related to aesthetics, construction air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, construction noise, tribal cultural resources given 16 acres would still be subject to development.

Conclusion

The Reduced Footprint Agricultural Preservation Alternative would avoid the significant and unavoidable impact to agricultural resources but would not avoid the significant and unavoidable VMT impact. This alternative could meet most of the project objectives, however, by only achieving half of the proposed housing units, this alternative would not achieve the project objective of providing market-rate and below-market rate (BMR) housing, as envisioned in the City of Morgan Hill General Plan, to the same degree as the project.

8.6.3 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 which would avoid significant agricultural impacts since development would not occur on the portion of the site mapped as Prime Farmland.

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 Proposed Project (Options 1 and 2)

Significant Impacts of the Proposed Project	Level of Impact		
	No Project – No Development	**No Project - Existing General Plan/Zoning Alternative**	**Reduced Footprint Agricultural Preservation Alternative**
Agricultural Resources	Avoided	Same	Avoided
Biological Resources	Avoided	Same	Same
Cultural Resources	Avoided	Same	Same
Greenhouse Gas Emissions	Avoided	Greater	Same
Hazards/Hazardous Materials	Avoided	Same	Same
Noise	Avoided	Greater	Similar
Tribal Cultural Resources	Same	Same	Same
Transportation Traffic	Avoided	Same	Same
Meets Project Objectives	No	Mostly	Partially
Environmentally Superior Alternative	Yes	No	Yes

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.

As shown in Table 8.6-2, the environmentally superior alternative that would at least partially meet the project objectives is the Reduced Footprint Agricultural Preservation alternative. The feasibility of this alternative will be determined by the City Council in deciding whether to approve the proposed project (under Options 1 and 2).

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:

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 10.0 LEAD AGENCY AND CONSULTANTS

10.1 LEAD AGENCY

City of Morgan Hill
Development Services Department, Planning Division
Gina Paolini, Principal Planner

10.2 CONSULTANTS

David J. Powers & Associates, Inc.
Environmental Consultants and Planners
Akoni Danielsen, President and Principal Project Manager
Amber Sharpe, Project Manager
Maria Kisyova, Assistant Project Manager
Ryan Osako, Graphic Artist

Hexagon Transportation Consultants
Robert Del Rio, Vice President and Principal Associate

Illingworth & Rodkin, Inc.
Acoustical and Air Quality Consultants
Michael Thill, Principal
James Reyff, Principal
Casey Divine, Staff Consultant
Steve Deines, Staff Consultant

Todd Groundwater
Kate White, Senior Civil Engineer

SECTION 11.0 ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACM	Asbestos containing material
ADT	Average Daily Traffic
AFY	Acre-feet per year
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
APN	Assessor's Parcel Number
AST	Aboveground storage tank
ATCM	Air toxic control measure
BAAQMD	Bay Area Air Quality Management District
BMP	Best management practice
BTU	British thermal unit
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Clean Air Plan
CARB	California Air Resources Board
CBC	California Building Standards Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbon
CFR	Code of Federal Regulations

Cfs	Cubic feet per second
CGS	California Geological Survey
CH_4	Methane
CIWMB	California Integrated Waste Management Board
CLUP	Comprehensive Land Use Plan
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agency
dB	Decibel
dBA	A-weighted decibel
DEIR	Draft Environmental Impact Report
DNL	Day-Night Level
DPM	Diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
ESL	Environmental Screening Level
EV	Electric vehicle
EVA	Emergency vehicle access
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FAR	Floor area ratio
FEMA	Federal Emergency Management Agency
FHSZ	Fire Hazard Severity Zones

FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHG	Greenhouse gas
GHGRS	Greenhouse Gas Reduction Strategy
gpd	Gallons per day
GWh	Gigawatt hour
GWP	Global Warming Potential
Habitat Plan	Santa Clara Valley Habitat Plan/Natural Community Conservation Plan
HFC	Hydrofluorocarbon
HI	Hazard Index
kW	Kilowatt
kWh	Kilowatt-hour
L_{eq}	Continuous noise level
LID	Low Impact Development
L_{max}	Maximum noise level
mgd	Million gallons per day
MND	Mitigated Negative Declaration
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NO_2	Nitrogen dioxide
NOD	Notice of Determination
NOI	Notice of Intent
NOP	Notice of Preparation
NO_x	Nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O_3	Ozone
OCP	Organochlorine pesticide
OPR	Governor's Office of Planning and Research
PCB	Polychlorinated biphenyl

PFC	Perfluorocarbon
PG&E	Pacific Gas and Electric Company
PM	Particulate matter
$PM_{2.5}$	Fine particulate matter
PM_{10}	Coarse particulate matter
ppm	Parts per million
PPV	Peak Particle Velocity
RHNA	Regional Housing Need Allocation
ROG	Reactive organic gas
RPS	Renewable Portfolio Standards
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCRWA	South County Regional Wastewater Authority
SF_6	Sulfur hexafluoride
SFHA	Special Flood Hazard Area
SHMA	Seismic Hazards Mapping Act
SMARA	Surface Mining and Reclamation Act
SMGB	State Mining and Geology Board
SMP	Site Management Plan
SO_x	Sulfur oxide
SR	State Route
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic air contaminant
TCR	Tribal Cultural Resource
TDF	Transportation Demand Forecasting
$\mu g/m^3$	Micrograms per cubic meter
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground storage tank
Valley Water	Santa Clara Valley Water District

VEC	Vapor Encroachment Condition
VMT	Vehicle miles traveled
VOC	Volatile organic compound
WSA	Water Supply Assessment
WWTP	Wastewater Treatment Plant