

CITY OF MOUNTAIN VIEW
RESOLUTION NO.
SERIES 2023

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF MOUNTAIN VIEW
ADOPTING THE INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR
THE TERRA BELLA PUBLIC STORAGE AND ALTA HOUSING AFFORDABLE HOUSING PROJECTS
LOCATED AT 1020 TERRA BELLA AVENUE, 1040 TERRA BELLA AVENUE,
AND 1055 SAN LEANDRO AVENUE PURSUANT TO
THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

WHEREAS, prior to the adoption of this Resolution, the City of Mountain View prepared an Initial Study and approved for circulation a Mitigated Negative Declaration for the Terra Bella Public Storage and Alta Housing Project (the “Initial Study/Mitigated Negative Declaration”) in accordance with the requirements of the California Environmental Quality Act of 1970, together with State guidelines implementing said Act, all as amended to date (collectively “CEQA”); and

WHEREAS, the Terra Bella Public Storage and Alta Housing Projects located at 1020 Terra Bella Avenue, 1040 Terra Bella Avenue, and 1055 San Leandro Avenue (the “Project”) analyzed under the Initial Study/Mitigated Negative Declaration include an amendment to the General Plan Land Use Map from General Industrial to High-Density Residential for 1020 Terra Bella Avenue, a General Plan Text Amendment to increase the floor area ratio (FAR) from 0.55 FAR to 2.5 FAR in the General Industrial Designation for projects proposing land uses with few employees and customers and significant public benefits toward affordable housing, a Zoning Map Amendment from the MM (General Industrial) Zoning District to the P (Planned Community) District for 1020 Terra Bella Avenue, 1040 Terra Bella Avenue, and 1055 San Leandro Avenue to construct two personal storage buildings with at-grade parking, and a six-story affordable housing development with 106 affordable rental units and two manager’s units with a two-story parking garage and including a density bonus and concession under State Density Bonus Law. A more detailed description of the Project is set forth in the Initial Study/Mitigated Negative Declaration; and

WHEREAS, the draft Initial Study/Mitigated Negative Declaration was made available and circulated for public comment from November 28, 2022 through December 28, 2022; and

WHEREAS, the City of Mountain View considered the comments received during the public review period and prepared a final Initial Study/Mitigated Negative Declaration, which includes minor text changes from the draft Initial Study/Mitigated Negative Declaration in response to a letter from the Department of Toxic Substance Control and other clarifying text modifications to the project details; and

WHEREAS, the Initial Study/Mitigated Negative Declaration concluded that implementation of the Project with mitigation measures and City standard conditions of approval will not have a significant effect on the environment; and

WHEREAS, the City of Mountain View is the lead agency on the Project, and the City Council is the decision-making body for the proposed approval of the Project; and

WHEREAS, the City Council has reviewed and considered the Initial Study/Mitigated Negative Declaration together with comments received and intends to take actions on the Project in compliance with CEQA; and

WHEREAS, the Initial Study/Mitigated Negative Declaration for the Project is attached hereto and incorporated herein as Exhibit A; and

WHEREAS, the response to public comments and text modifications to the Initial Study is attached hereto and incorporated herein as Exhibit B; and

WHEREAS, the Mitigation Monitoring and Reporting Program is attached hereto and incorporated herein as Exhibit C; now, therefore, be it

RESOLVED: by the City Council of the City of Mountain View:

1. That the City Council finds the Initial Study/Mitigated Negative Declaration prepared for the Project has been completed in compliance with CEQA.
2. That the City Council finds on the basis of the whole record before it, including the Initial Study/Mitigated Negative Declaration and the comments received, that there is no substantial evidence that the Project will have a significant effect on the environment.
3. That the City Council finds the Initial Study/Mitigated Negative Declaration reflects the independent judgment and analysis of the City of Mountain View.
4. That the City Council hereby designates the Community Development Director, at 500 Castro Street, First Floor, Mountain View, California, 94041, as the custodian of documents and records of proceedings on which this decision is based.

5. That the City Council hereby adopts the Mitigated Negative Declaration for the Project.

EM/6/RESO
808-02-01-23r

Exhibit: A. Initial Study/Mitigated Negative Declaration
 B. Response to Public Comments
 C. Mitigation Monitoring and Reporting Program

DRAFT

Initial Study

Terra Bella Public Storage & ALTA Housing Project



Prepared by

City of
Mountain View

50
YEARS
EST. 1972

In Consultation with
DAVID J. POWERS
& ASSOCIATES, INC.
ENVIRONMENTAL CONSULTANTS & PLANNERS

November 2022

Terra Bella Public Storage & ALTA Housing Project

Draft Mitigated Negative Declaration

Project: Terra Bella Public Storage & ALTA Housing Project

Lead Agency:

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Availability of the Initial Study:

The Initial Study for this Mitigated Negative Declaration is attached and available for review on the City's website at the following web address:

<https://www.mountainview.gov/depts/comdev/planning/activeprojects/ceqa.asp>

Project Location and Description:

The approximately 4.8-acre project site is located at 1020 and 1040 Terra Bella Avenue and 1055 San Leandro Avenue in the City of Mountain View (Assessor's Parcel Numbers [APNs] 153-15-030, 153-15-002, and 153-15-021).

The project proposes a property transfer between the project site owners (Alta Housing and Public Storage), a land donation of 0.5-acre from Public Storage to Alta Housing, a General Plan Map and text amendment, Zoning map amendment, Planned Community Permit, Development Review

Permit, Subdivision Permit, and Development Agreement in order to develop an updated storage facility and affordable, multi-family housing development. The General Plan Map amendment would change the General Plan land use designation for the portion of project site with the proposed residential development from General Industrial to High Density Residential. The General Plan text amendment would increase the allowable development density on the storage facility portion of the project site that would remain under the existing General Industrial land use designation. The entire project site would be rezoned to Planned Community (P) District with site-specific development standards to allow for the proposed storage facility and residential development. The State Density Bonus Law permits the proposed residential density and parking reduction proposed.

The project would demolish a total of 77,418 square feet of existing storage facility space to construct a new six-story (up to 70 feet to the top of roof and 80 feet to top of penthouse) residential apartment building with 108, 100 percent affordable units (excluding two manager's units) and an above grade parking garage. The project would also construct two new storage facility buildings: 1) a six-story, approximately 285,012 square foot building (including up to one manager's unit) with a maximum height of 84' - 7" and a four-story, approximately 123,952 square foot building with a maximum height of 63' - 3".

Refer to the Initial Study for additional details on the project components.

Proposed Findings:

The City has prepared the attached Initial Study and determined that the analysis in the Initial Study identifies potentially significant project effects, but:

1. Mitigation measures required by the City, and agreed to by the applicant, would avoid or mitigate the effects to a point where no significant effects would occur; and
2. There is no substantial evidence, in light of the whole record before the agency, that the project with implementation of mitigation measures may have a significant effect on the environment. Pursuant to California Environmental Quality Act (CEQA) Guidelines Sections 15064(f)(3) and 15070(b), a Mitigated Negative Declaration has been prepared for the project.

Basis of Findings:

Based on the environmental evaluation presented in the attached Initial Study, the project would not cause significant adverse effects related to aesthetics, agricultural and forestry resources, biological resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use/planning, mineral resources, population and housing, public services, recreation, transportation, utilities/service systems, and wildfire. The project does not have impacts that are individually limited, but cumulatively considerable. The environmental evaluation has determined that the project would have potentially significant impacts on air quality, cultural resources (including tribal cultural resources), greenhouse gas emissions, and noise/vibration and the implementation of the mitigation measures listed below would reduce impacts to a less than significant level.

Mitigation Measures:**Air Quality/Greenhouse Gas Emissions**

MM AIR-1.1: The project shall implement the below measures to control diesel particulate matter emissions during construction. This list of measures shall be incorporated into the approved building plan set.

1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for NO_x and PM, if feasible, otherwise,
 - a. If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a 60 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination). Use of alternatively-fueled equipment with lower NO_x emissions that meet the NO_x and PM reduction requirements above.
 - b. Use of electrical or non-diesel fueled equipment.

Alternatively,

2. The applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction diesel particulate matter emissions by 60 percent or greater. Elements of the plan could include a combination of some of the following measures:
 - Implementation of No. 1 above to use Tier 4 or alternatively fueled equipment,
 - Installation of electric power lines during early construction phases to avoid use of diesel generators and compressors,
 - Use of electrically-powered equipment,
 - Forklifts and aerial lifts used for exterior and interior building construction shall be electric or propane/natural gas powered,
 - Change in construction build-out plans to lengthen phases, and
 - Implementation of different building techniques that result in less diesel equipment usage.

Such a construction operations plan shall be prepared by an air quality expert and approved by the City prior to construction.

Cultural Resources/Tribal Cultural Resources

- MM CUL-2.1:** Prior to ground-disturbing activities, a qualified archaeologist shall provide cultural resources training to all contractors and employees involved in trenching and excavation. The training shall inform participants how to recognize archaeological artifacts and deposits and discuss their obligations under the law and the project's standard conditions of approval.

Noise/Vibration

- MM NOI-2.1:** The following measures shall be implemented during construction to reduce vibration levels to 0.5 in/sec PPV or less at adjacent commercial/industrial buildings south of the site:
- Place operating equipment on the construction site as far as possible from vibration-sensitive receptors.
 - Use smaller vibratory rolling equipment, for example the Caterpillar model CP433E vibratory compactor, within 15 feet of the adjacent commercial/industrial buildings south of the site to reduce vibration levels to 0.5 in/sec PPV or less.
 - Select demolition methods not involving impact tools.
 - Avoid dropping heavy equipment, such as a clam shovel drop, within 15 feet of the adjacent commercial/industrial buildings south of the site, and use alternative methods for breaking up existing pavement, such as a pavement grinder.
 - Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.

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SECTION 1.0 INTRODUCTION AND PURPOSE

1.1 PURPOSE OF THE INITIAL STUDY

The City of Mountain View, as the Lead Agency, has prepared this Initial Study for the Terra Bella Public Storage & ALTA Housing project in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations §15000 et. seq.) and the regulations and policies of the City of Mountain View.

The project proposes to demolish the existing improvements on-site and construct two storage facility buildings totaling 408,964 square feet, and a Subdivision Permit to donate approximately 0.5-acre of land to ALTA Housing for construction of a multi-family housing development with a total of 108 dwelling units. This Initial Study evaluates the environmental impacts that might reasonably be anticipated to result from implementation of the proposed project.

1.2 PUBLIC REVIEW PERIOD

Publication of this Initial Study marks the beginning of a 30-day public review and comment period. During this period, the Initial Study will be available to local, state, and federal agencies and to interested organizations and individuals for review. Written comments concerning the environmental review contained in this Initial Study during the 30-day public review period should be sent to:

Edgar Maravilla
City of Mountain View
500 Castro Street, Mountain View, CA 94041
Email: Edgar.Maravilla@mountainview.gov
Phone Number: (650) 903-6321

1.3 CONSIDERATION OF THE INITIAL STUDY AND PROJECT

Following the conclusion of the public review period, the City of Mountain View will consider the adoption of the Initial Study/Mitigated Negative Declaration (MND) for the project at a regularly scheduled meeting. The City shall consider the Initial Study/MND together with any comments received during the public review process. Upon adoption of the MND, the City may proceed with project approval actions.

1.4 NOTICE OF DETERMINATION

If the project is approved, the City of Mountain View 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 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 15075(g)).

SECTION 2.0 PROJECT INFORMATION

2.1 PROJECT TITLE

Terra Bella Public Storage & ALTA Housing Project

2.2 LEAD AGENCY CONTACT

Edgar Maravilla
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500 Castro Street, Mountain View, CA 94041
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2.3 PROJECT APPLICANTS

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Carlos Castellanos
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Email: ccastellanos@altahousing.org
Phone Number: (650) 321-9709

2.4 PROJECT LOCATION

The approximately 4.8-acre project site is located at 1020 and 1040 Terra Bella Avenue and 1055 San Leandro Avenue in the City of Mountain View (Assessor's Parcel Numbers [APNs] 153-15-030, 153-15-002, and 153-15-021). The project site is bound by US 101 to the north, Terra Bella Avenue to the south, San Rafael Avenue to the east, and Linda Vista Avenue to the west. The project site is owned by two entities: Alta Housing and Public Storage. Alta Housing owns the approximately 0.5-acre southeastern portion of the site consisting of a dilapidated, uninhabitable, single-story residence and a paved area used for parking (APN 153-15-021). Public Storage owns the remaining 4.3-acre majority of the site (APNs 153-15-002 and 153-15-030), which is developed with 18, single-story buildings that include drive-up storage lockers and a rental office totaling 77,418 square feet.

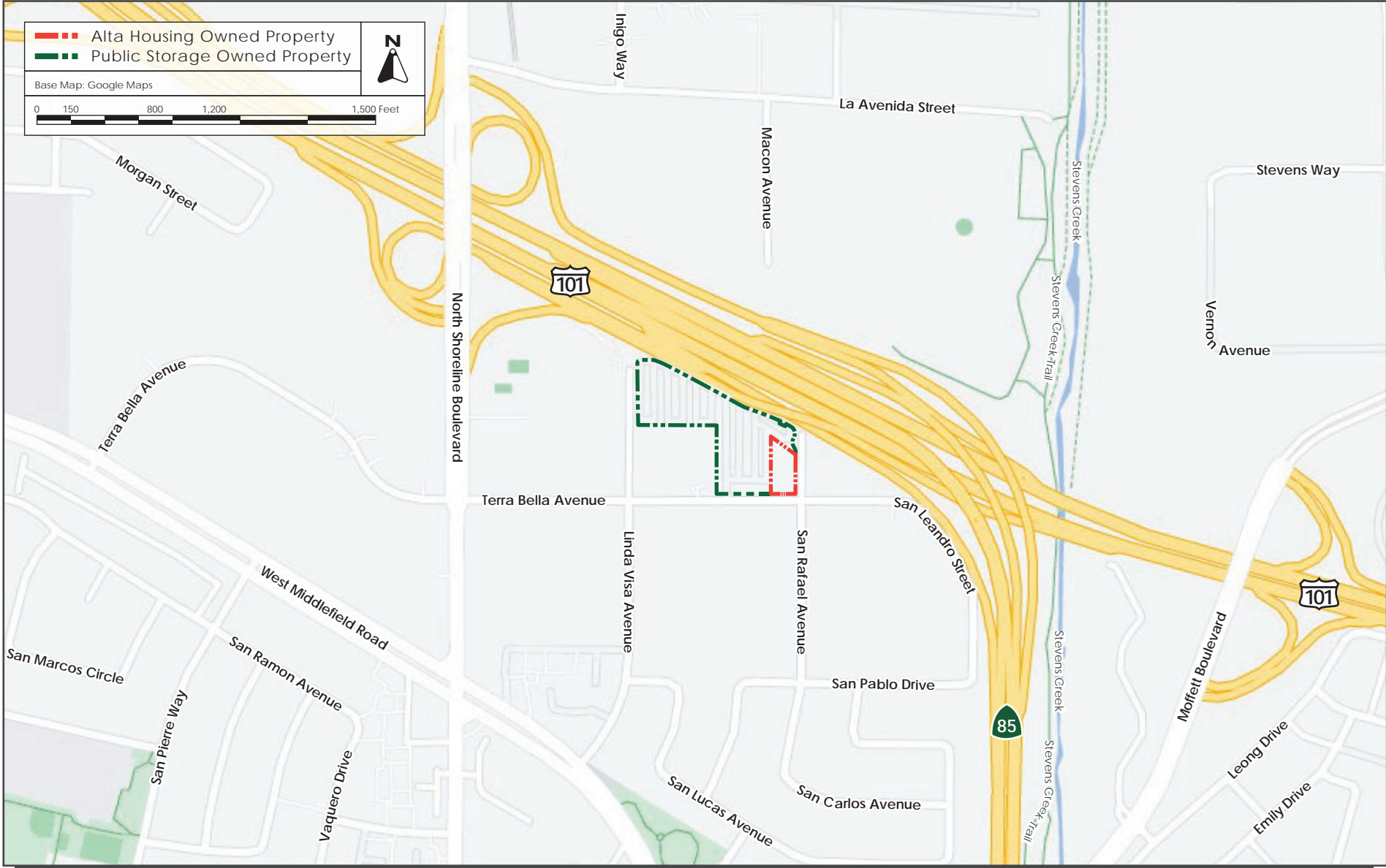
The development to the west, south, and east of the project site consists primarily of office and industrial uses. There is also a scientology church to the west of the project site.

Regional and vicinity maps of the site are shown below on Figure 2.4-1 and Figure 2.4-2, respectively, and an aerial photograph of the project site and the surrounding land uses is shown on Figure 2.4-3.



REGIONAL MAP

FIGURE 2.4-1



VICINITY MAP

FIGURE 2.4-2

AERIAL MAP

FIGURE 2.4-3

2.5 ASSESSOR'S PARCEL NUMBERS

153-15-030, 153-15-002, and 153-15-021

2.6 GENERAL PLAN DESIGNATION AND ZONING DISTRICT

The Mountain View 2030 General Plan (General Plan) land use designation for the project site is General Industrial, which allows for industrial uses including manufacturing and storage, research and development, administrative offices, and ancillary commercial. Development in this land use designation is allowed a maximum floor-area ratio (FAR) of 0.35. If the development has a limited number of employees and customers, such as a warehouse, then a maximum FAR of 0.55 would be permissible. Residential uses are not permitted in this land use designation.

The project site is zoned General Industrial (MM), which allows land uses such as manufacturing, storage facilities, and warehouses by right. Other uses such as churches, restaurants, offices, and safe parking are conditionally permitted. The MM zone does not specify a maximum allowable building height unless the site is within 200 feet of a residential district, which the project site is not. Section 36.20.35 of the Mountain View Code of Ordinances (City Code) contains other development standards for the MM zoning district including allowable FAR, setback requirements, and landscaping requirements. Residential land uses are not permitted in the MM zoning district.

2.7 PROJECT-RELATED APPROVALS, AGREEMENTS, AND PERMITS

- General Plan Map and Text Amendment
- Zoning Map Amendment
- Development Review Permit
- Subdivision Permit
- California State Density Bonus Law
- Development Agreement
- Building Permits

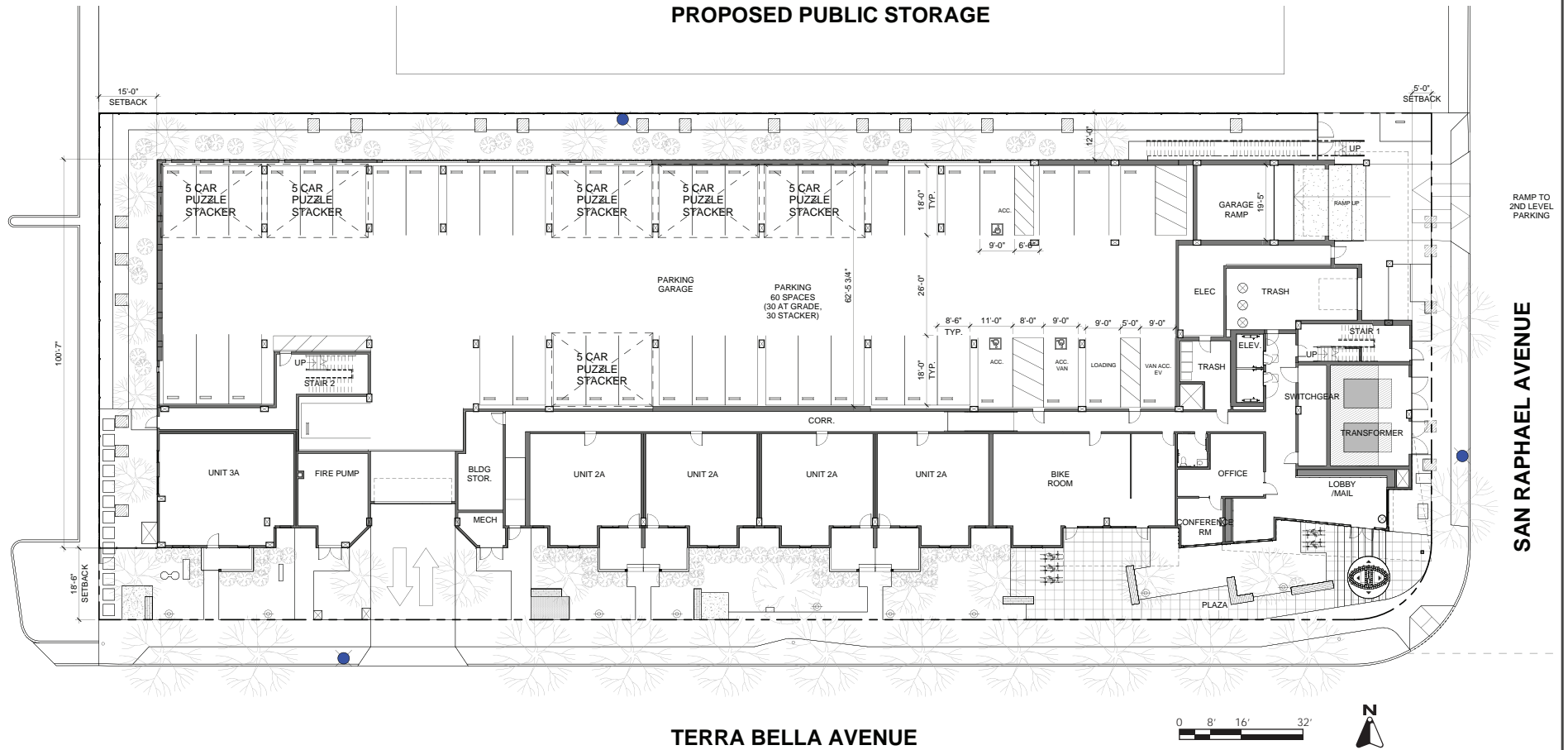
SECTION 3.0 PROJECT DESCRIPTION

The project includes a property transfer between the project site owners, Alta Housing and Public Storage, and a land donation of 0.5-acre from Public Storage to Alta Housing to develop an updated storage facility and affordable, multi-family housing development. The proposed boundaries resulting from the property transfer for the two uses are shown in Figure 2.4-3. This property transfer would help foster a multi-family project with a pedestrian friendly environment within the Terra Bella neighborhood. The storage facility development by Public Storage would be located behind the affordable housing development by Alta Housing and adjacent to the freeway, with the storage facility development creating a buffer between the freeway and the future residents. These benefits cannot be achieved through the current property configuration, only through this unique collaborative venture proposed by Alta Housing and Public Storage. The project would ultimately require the demolition of all existing structures on-site.

As discussed previously, residential uses are not allowed under the current General Industrial General Plan designation or the MM zoning designation on the site. Therefore, the project would require a General Plan map amendment to accommodate the proposed residential building. The General Plan land use designation for the portion of project site with the proposed residential development would be changed to High Density Residential. The High Density Residential General Plan designation allows for development densities of 36 to 80 dwelling units per acre (du/ac) and encourages multi-family residential buildings. The General Plan text would also be amended to increase the maximum allowable FAR under the General Industrial land use designation from up to 0.55 to 2.5 on the storage facility portion of the project site that would remain under the existing General Industrial land use designation. Moving forward, the 2.5 maximum FAR would only apply to projects that provide significant public benefits in support of affordable housing, where allowed through zoning.

In addition to the General Plan amendment, the entire project site would be rezoned to Planned Community (P) District with site-specific development standards to allow for the proposed storage facility and residential development.

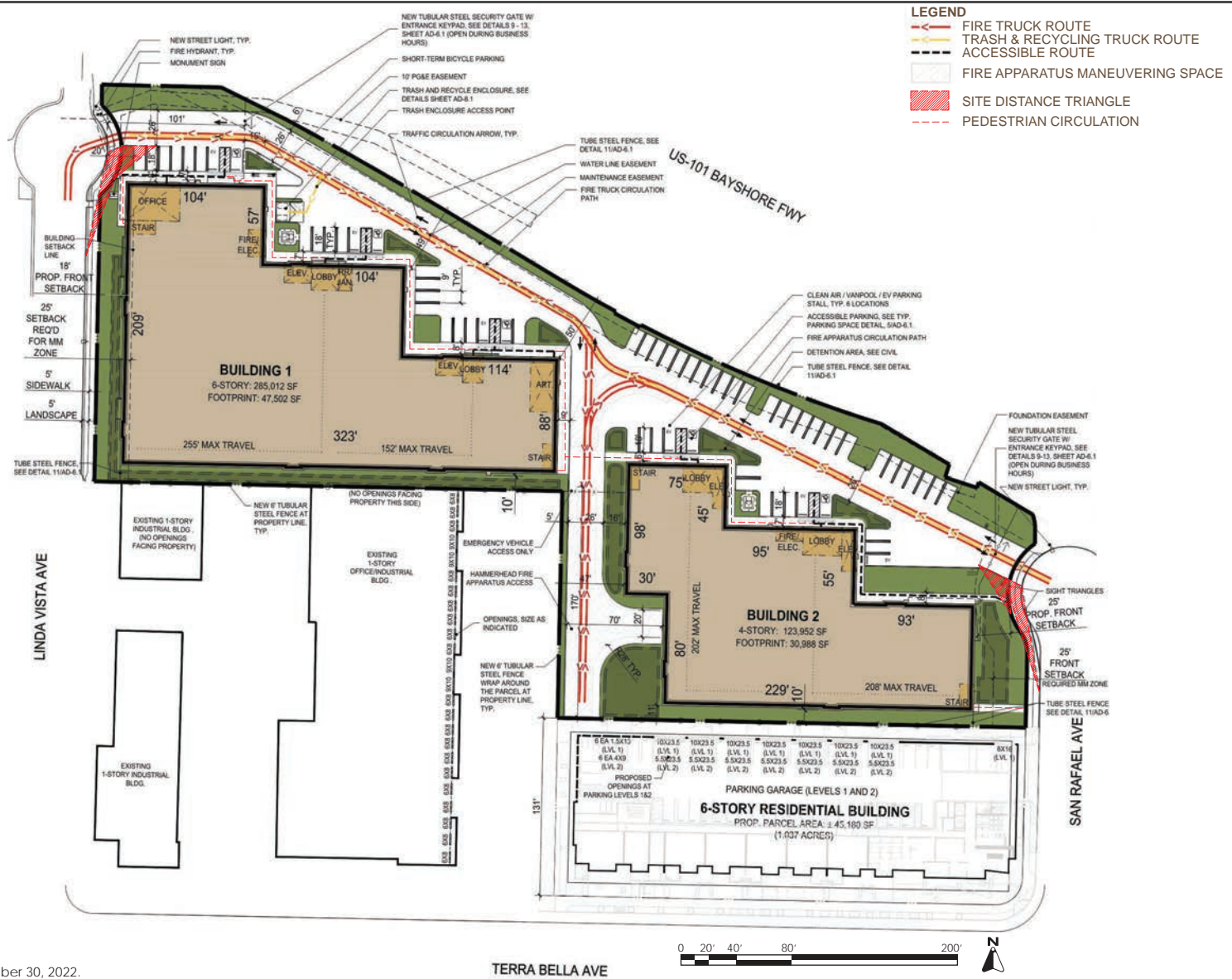
The primary project components are described below. Conceptual site plans are shown in Figure 3.0-1 and Figure 3.0-2, and conceptual building elevations are shown in Figure 3.0-3 and Figure 3.0-4.



Source: Van Meter Williams Pollack LLP, September 27, 2022.

CONCEPTUAL GROUND FLOOR RESIDENTIAL BUILDING SITE PLAN

FIGURE 3.0-1



CONCEPTUAL STORAGE FACILITY BUILDINGS SITE PLAN

FIGURE 3.0-2



NORTH ELEVATION



SOUTH ELEVATION



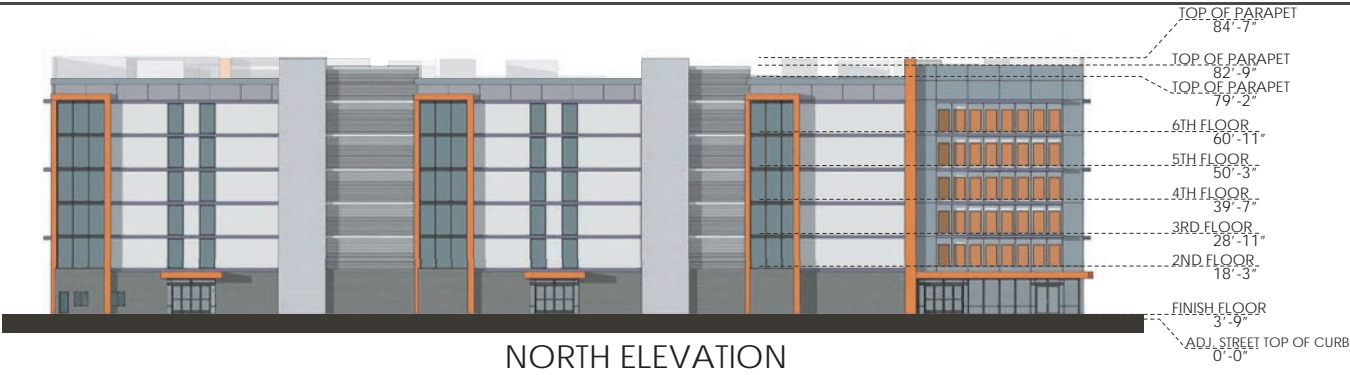
WEST ELEVATION



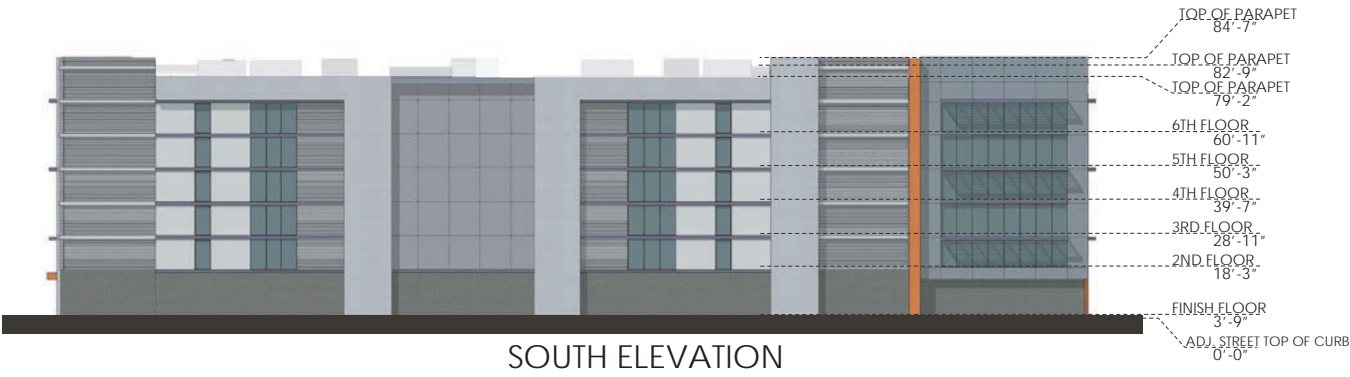
EAST ELEVATION

Source: Van Meter Williams Pollack LLP, September 27, 2022.

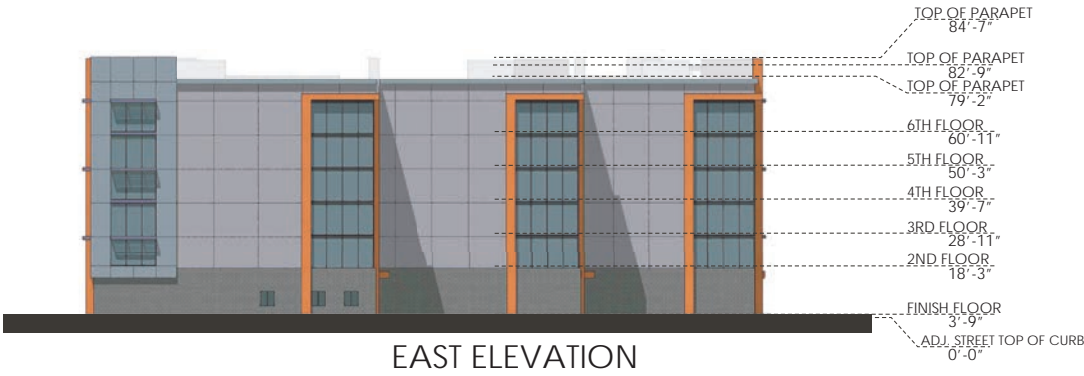
BUILDING 1



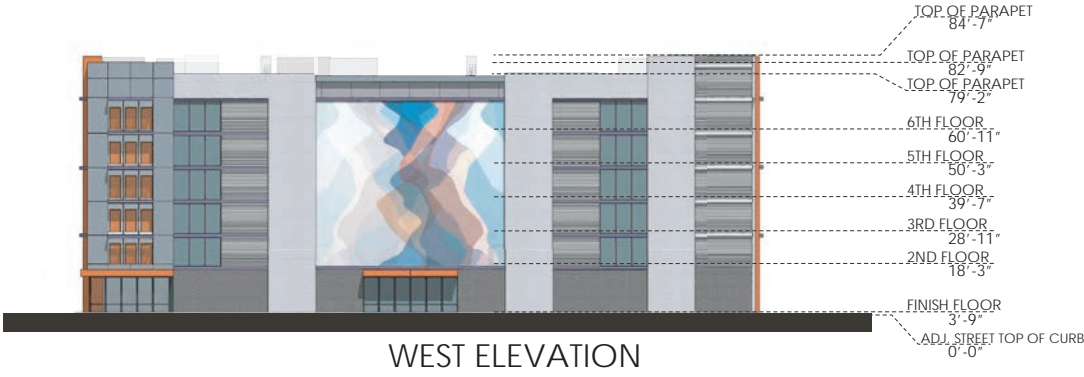
NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION

BUILDING 2



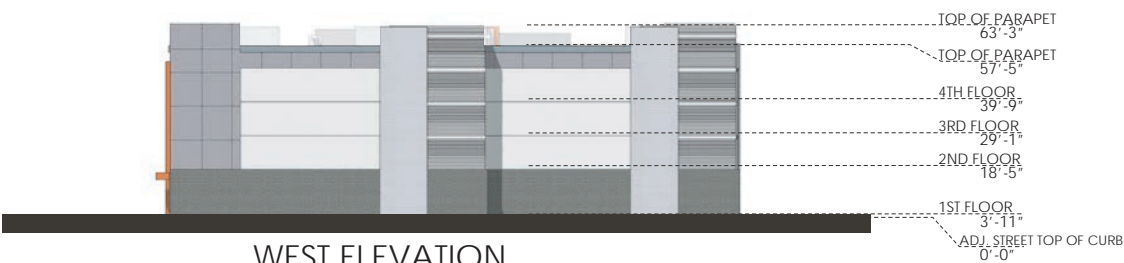
NORTH ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION

Source: Ware Malcomb, September 28, 2022.

CONCEPTUAL STORAGE FACILITY BUILDINGS ELEVATIONS

FIGURE 3.0-4

3.1 RESIDENTIAL DEVELOPMENT

The residential development would be developed in one phase and includes the demolition of the existing improvements on the southern portion of the site fronting Terra Bella Avenue. This area would be redeveloped with a six-story (up to 70 feet to the top of roof and 80 feet to top of penthouse) residential apartment building with 108, 100 percent affordable units (excluding manager's units) and an above grade parking garage. The building would provide 28, three-bedroom apartment units, 29, two-bedroom apartment units, 49, one-bedroom apartment units, and two studio apartment units. Two of the 108 units would be reserved as manager's units, one for the residential building manager and one to serve as a replacement for the existing storage facility manager's unit that would be demolished as a part of this project. In the event affordable housing funding sources would not allow a unit to be occupied by the storage facility on-site manager, Building 1 of the storage facility development would include an 845 square foot manager's apartment unit.¹ The residential parking garage would be located on the San Rafael Avenue and Terra Bella Avenue frontage, providing two levels of parking with a total of 105 parking stalls for the apartment units.

The ground-floor level of the building would include the first level of the parking garage, a bike shop and storage room, a management office, and a lobby and mail room area. Five residential units would also be located on the ground floor of the building facing Terra Bella Avenue. The second floor of the building would have an above grade parking garage and residential units. A residential courtyard would be provided on the third floor of the building containing landscaping areas, lounge areas, play equipment, and multiple trellises with lights and space heaters. Residential units, as well as a community room with meeting areas and kitchen space, would surround the courtyard and make up the remainder of the third floor. The remaining upper floors of the building would consist of residential units. Each floor would provide storage space for residents, and the third and fourth floor would provide laundry rooms for residents. The apartment building would have a minimum side setback of five feet from San Rafael Avenue and a front setback of 18.5 feet from Terra Bella Avenue. The project would include a pedestrian plaza area along Terra Bella Avenue that would contain seating areas and multiple garden themes.

The portion of the project site allotted for the residential building is approximately 45,180 square feet (or 1.04 acres), which would result in an allowed development density of 84 du/ac. The residential building would provide 100 percent affordable housing units, excluding the two manager's units. Under the State Density Bonus Law, the project is entitled to an 80 percent density bonus, four incentives, and unlimited waivers. The residential building requires a density bonus of 28 percent to achieve the proposed density of 104 du/ac with 108 total units. The project proposes a Transportation Demand Management (TDM) plan to reduce the amount of residential parking on-site from 137 parking spaces required by the City under the State Density Bonus Law to 105 spaces. A parking study was completed for the project (refer to Appendix K for the parking analysis) and confirmed the proposed parking is adequate.

¹ This Initial Study conservatively analyzes the project would include 109 residential units.

3.1.1 Green Building Measures

The proposed residential building would achieve GreenPoint Rated Gold certification level by incorporating green building measures including landscaped bioretention areas, drought tolerant landscaping with high-efficiency irrigation, water efficient interior fixtures, energy efficient appliances, and solar panels on the rooftop. Pursuant to the City’s Green Building Code, the residential building would be 100 percent electric. No natural gas would be used.

3.1.2 Access and Parking

Vehicle access to the parking garage of the proposed residential building would be provided via two separate two-way driveways. A driveway on Terra Bella would lead to the at grade parking behind (i.e., directly south of) the building. The second driveway would be located on San Rafael Avenue leading to the second-floor level parking garage.

As mentioned above, the parking garage would provide 105 total parking spaces and include a combination of traditional surface parking spaces and mechanical parking stalls that allow for the stacking of parked cars. These mechanical lift parking stalls would provide up to two parking spaces per stall by stacking two cars vertically. The ground floor level of the parking garage would utilize six of the “puzzle stacker” arrangements to provide 25 parking spaces. The other 80 stalls would be provided as standard surface parking stalls, five of which would be Americans with Disabilities Act (ADA) accessible. The garage would provide 16 electric vehicle charging stations and 89 (EV-ready) stalls that would be pre-wired to be converted into electric vehicle charging stations in the future.

The project also includes a total of 108 bicycle parking spaces in a secure storage room on the ground floor of the residential building. The secure storage room would be accessible through doorways on the outside of the building along Terra Bella Avenue or from internal access points. The project would also provide 12 short-term bicycle parking spaces on racks outside of the building adjacent to Terra Bella Avenue.

Pedestrian access to the residential building would be provided via sidewalks on Terra Bella Avenue and San Rafael, which would provide access to the lobby located on the southeast corner of the building.

3.1.3 Utility and Right-of-Way Improvements

The proposed residential building would make lateral connections to the existing utility system. The project would construct new domestic water, fire water, storm drain, and sanitary sewer lateral connections to the existing water, storm drain, and sanitary sewer mains in Terra Bella Avenue and new irrigation water and stormwater lateral connections to the existing water and storm drain mains in San Rafael Avenue. New fire water connections would be constructed for fire hydrants on Terra Bella Avenue and San Rafael Avenue. Electric lines would connect to an existing electrical vault on San Rafael Avenue northeast of the proposed building, and overhead electricity lines along the project frontage on Terra Bella Avenue would remain in place. No connections to natural gas are proposed.

The sidewalks along the project frontages on Terra Bella Avenue and San Rafael would be reconstructed and widened to include planter strips. New streetlights would also be installed along the building frontages on Terra Bella Avenue. Crosswalks would be striped at all four sides of the

intersection of Terra Bella Avenue and San Rafael Avenue, and curb ramps and gutters would be reconstructed at the intersection as necessary.

3.2 STORAGE FACILITY DEVELOPMENT

The storage facility development would ultimately demolish all existing improvements within its area and develop two storage facility buildings on the northwest and northeast corners of the site (Buildings 1 and 2 respectively) totaling 408,964 square feet. As mentioned previously, Phase 1 of construction includes demolition of the improvements on the southern portion of the site fronting Terra Bella Avenue. Phase 1 also includes the demolition of approximately 52,610 square feet of the existing storage buildings located on the western side of the site. Additionally, Phase 1 would include construction of the six-story, approximately 285,012 square foot storage facility building with a maximum height of 84'- 7" to the top of parapet (see Building 1 on Figure 3.0-2). Building 1 would provide a new rental office on the ground floor and all six floors would contain lockers that customers would use for storage. As described above, if it is infeasible to reserve one of the proposed apartment units for the on-site storage facility manager, Building 1 would include an 845 square foot manager's apartment unit. If the apartment in Building 1 is not needed, this area would be constructed as self-storage unit space.

The remaining 24,808 square feet of existing storage buildings would continue to operate as is until Phase 2. Once Phase 1 is complete, Phase 2 of construction would include the demolition of the remaining storage buildings and the construction of a four-story, approximately 123,952 square foot storage facility building with a maximum height of 63'- 3" to the top of parapet. Building 2 would be located in the northeast corner of the site, directly behind the proposed residential building (see Building 2 on Figure 3.0-2). Building 2 would be dedicated solely to storage space for customers.

The FAR for the storage facility portion of the project site would be approximately 2.49.² As described above, the maximum FAR allowed for this type of use in the General Industrial land use designation is 0.55, but the proposed General Plan Text Amendment would allow for a 2.5 FAR

A locked, trash and recycling enclosure would be located adjacent to Building 1 to accommodate solid waste for both buildings. The trash and recycling bins would only be available to the storage facility office staff. Customers would be required to remove their own debris from the facility.

The proposed rental office hours would be 9:00 a.m. to 8:00 p.m. and customer access hours would be from 6:00 a.m. to 9:00 p.m., seven days a week. Once Phase 1 and 2 are completed, one to four employees per shift would staff the facility.

3.2.1 Green Building Measures

The proposed storage facility buildings would have solar panels and solar-ready rooftops. Landscaping around the perimeter of the storage buildings would also be drought tolerant and feature high-efficiency irrigation. The interior of the storage facility buildings would limit the use of artificial heating and cooling and would utilize motion activated lighting to limit the energy use on-site. The buildings would

² The storage facility buildings would total 408,964 square feet, and the storage facility portion of the project site would be approximately 3.77 acres (or 164,396 square feet) in size. $408,964 \text{ square feet} / 164,396 \text{ square feet} = 2.49$

only be heated if interior temperatures reach approximately 55 degrees Fahrenheit and cooled only when interior temperatures reach approximately 85 degrees Fahrenheit.

3.2.2 Access and Parking

Vehicle access to the proposed storage buildings would be provided by two new, two-way driveways located on Linda Vista Avenue and San Rafael Avenue. The driveways would lead to the main internal driveway along the north side of the property and a separate branch of the driveway would run between the two buildings. The internal driveways would also provide emergency access.

Pursuant to the City’s parking requirements detailed in Section 36.32.50 of the Zoning Ordinance, 209 parking stalls would be required to serve both storage facility buildings. The project requests a parking requirement reduction to reduce the amount of parking provided from 209 to 66 spaces. The parking study completed for the project confirmed 66 spaces was adequate for the proposed Planned (P) District (refer to Appendix K for details). Most of the stalls would be located along the northern boundary of the project site, adjacent to Highway 101. Additional parking stalls, including three ADA accessible stalls, would be provided next to the rental office in the western building and adjacent to the customer lobbies at both buildings. The project would also provide short-term bicycle parking spaces on racks outside of the rental office.

Pedestrian access to the storage facility buildings would be provided via sidewalks on Linda Vista Avenue and San Rafael Avenue.

3.2.3 Utility and Right-of-Way Improvements

The proposed storage facility buildings would require lateral connections to the existing utility system. The project would construct new lateral connections to the existing storm drain, water, and sanitary sewer mains in Linda Vista Avenue and San Rafael Avenue, and new fire water lateral connection to the existing water main in the northern property line. A new fire water connection would be made for a fire hydrant on San Rafael Avenue. Electric lines and transformers would be installed on-site to connect to the existing electric main in Linda Vista Avenue. No connections are proposed for natural gas.

The sidewalks along the project frontages on Linda Vista Avenue and San Rafael would be reconstructed and widened to include planter strips. New streetlights would also be installed on Linda Vista Avenue and San Rafael Avenue along the buildings’ frontages.

3.3 LANDSCAPING

The project site (1020 & 1040 Terra Bella) currently contains three on-site trees, and 15 street trees in the public right-of-way. One of the on-site trees is a protected Heritage tree under Section 32.25 of the City Code.³ The proposed project would remove a total of two on-site trees and preserve the only on-site protected Heritage tree. The proposed project would remove and replace all 15 public right-of-way

³ Per City Code Section 32.25, a “Heritage Tree” is any tree that has a trunk with a circumference of 48 inches or more measured at 54 inches above natural grade. Multi-trunk trees are measured just below the first major trunk fork. Three species, quercus (oak), sequoia (redwood) or cedrus (cedar) are considered “Heritage” if they have a circumference of 12 inches measured at 54 inches above natural grade.

street trees to conduct public right of way improvements, including detach sidewalks with street trees and landscape on all project frontages. The project would plant 19 replacement trees for a total project tree count of 125 trees in areas surrounding each of the buildings and in the surface parking lot for the storage facility buildings.

In addition to the replacement trees, the project would plant other new landscaping (including new shrubs and groundcover) around the perimeter of the site boundary and building footprints and in the third-story courtyard of the residential building. The landscaping would include low to moderate water use plants and California native species.

3.4 STORMWATER TREATMENT

The project site currently consists of approximately 4.54 acres (or 95 percent) of impervious area, including the rooftops of the existing buildings and surface parking areas. The remaining 0.26 acre (or five percent) of the site consists of pervious area, which is comprised of landscaping and other permeable surfaces. The proposed project would result in a reduction of impervious area by approximately 0.65 acre (or 14 percent). Table 3.4-1 summarizes the impervious and pervious surfaces on-site under existing and project conditions.

Table 3.4-1: Existing and Proposed Impervious/Pervious Surfaces				
	Existing		Proposed	
	Acreage	Percent of site	Acreage	Percent of site
Impervious	4.54	95	3.89	81
Pervious	0.26	5	0.91	19
<i>Total</i>	<i>4.80</i>	<i>100</i>	<i>4.80</i>	<i>100</i>

The proposed improvements that would contribute to the decrease in impervious area include the addition of bioretention areas, landscaping, and rain gardens in several areas around the new buildings. These improvements would be constructed on portions of the project site that are currently paved areas.

3.5 CONSTRUCTION

Project construction activities include demolition, site preparation, grading and excavation, building construction, architectural coatings, and paving. The project would be completed in two phases, the residential building and Building 1 of the storage facility would be constructed in Phase 1 and Building 2 of the storage facility would be constructed in Phase 2. These phases are described below.

3.5.1 Phase 1 – Residential Development and Storage Building 1

Phase 1 of construction includes the demolition of the existing storage buildings on the southern portion of the site fronting Terra Bella Avenue, as well as approximately 52,610 square feet of the storage buildings located on the western portion of the site. Since the existing rental office would be demolished under Phase 1, a temporary office trailer would be located within the storage facility development area near the San Rafael Avenue entrance while Building 1 is being constructed. The temporary office trailer would be removed as soon as Building 1 is approved for occupancy.

The remaining storage buildings on the east side of the site would remain and continue to be occupied by existing tenants during Phase 1. During construction of Phase 1, the remaining storage buildings would be accessible from San Rafael Avenue.

After demolition is complete, the residential development and Building 1 of the storage facility development would be constructed. The construction materials required for this phase would be staged on-site in the area created by the demolition of the existing storage buildings. It is estimated that construction for both buildings would take a total of 22 months and require excavation at a maximum depth of eight feet below ground surface. Excavation and removal of approximately 2,815 cubic yards of soil would be necessary to accommodate the proposed building foundations, footings, and utilities. It is assumed that Phase 1 would start in December 2023 and be completed in September 2025.

After Phase 1 is complete, the storage facility development (remaining storage facility buildings on the east side of the site and newly constructed Building 1) would be accessed from Linda Vista Avenue where the new rental office is located.

3.5.2 Phase 2 – Storage Building 2

Phase 2 of construction includes the demolition of the remaining 24,808 square feet of the existing storage facility buildings and construction of Building 2 on the east side of the site. It is estimated that Phase 2 would take a total of 12 months to complete and require excavation at a maximum depth of eight feet below ground surface for utilities and 2.5 feet at the building foundations. Excavation and removal of approximately 2,625 cubic yards of soil would be necessary to accommodate the proposed building foundations, footings, and utilities. It is assumed that Phase 2 would start in October 2025 and be completed in September 2026.

SECTION 4.0 ENVIRONMENTAL SETTING, CHECKLIST, AND IMPACT DISCUSSION

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

4.1	Aesthetics	4.12	Mineral Resources
4.2	Agriculture and Forestry Resources	4.13	Noise
4.3	Air Quality	4.14	Population and Housing
4.4	Biological Resources	4.15	Public Services
4.5	Cultural Resources	4.16	Recreation
4.6	Energy	4.17	Transportation
4.7	Geology and Soils	4.18	Tribal Cultural Resources
4.8	Greenhouse Gas Emissions	4.19	Utilities and Service Systems
4.9	Hazards and Hazardous Materials	4.20	Wildfire
4.10	Hydrology and Water Quality	4.21	Mandatory Findings of Significance
4.11	Land Use and Planning		

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 1) includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts and 2) 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. Identified mitigation measures are applicable to both project components (residential and storage facility) unless explicitly stated otherwise.

Note: As described in the project description, in the event affordable housing funding sources would not allow a unit to be occupied by the storage facility on-site manager, Building 1 of the storage facility development would include an 845 square foot manager’s apartment unit. The following sections conservatively analyzed the development of 109 residential units to account for the additional unit in the storage facility.

4.1 AESTHETICS

4.1.1 Environmental Setting

4.1.1.1 *Regulatory Framework*

State

Senate Bill 743

Senate Bill (SB) 743 was adopted in 2013 and requires lead agencies to use alternatives to level of service (LOS) for evaluating transportation impacts, specifically vehicle miles traveled (VMT). SB 743 also included changes to CEQA that apply to transit-oriented developments, as related to aesthetics and parking impacts. Under SB 743, a project's aesthetic impacts will no longer be considered significant impacts on the environment if:

- The project is a residential, mixed-use residential, or employment center project, and
- The project is located on an infill site within a transit priority area.⁴

SB 743 also clarifies that local governments retain their ability to regulate a project's aesthetics impacts outside of the CEQA process.

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.

Local

Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant aesthetic impacts. The following policies are applicable to the proposed project.

⁴ An "infill site" is defined as "a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins, or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses." A "transit priority area" is defined as "an area within 0.5 mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program or applicable regional transportation plan." A "major transit stop" means "a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods."

Source: Office of Planning and Research. "CEQA Review of Housing Projects Technical Advisory." Accessed March 1, 2022. https://opr.ca.gov/docs/20190208-TechAdvisory-Review_of_Housing_Exemptions.pdf.

Policy	Description
Land Use Mix, Distribution and Intensity	
LUD 6.1	Neighborhood character. Ensure that new development in or near residential neighborhoods is compatible with neighborhood character.
LUD 9.1	Height and setback transitions. Ensure that new development includes sensitive height and setback transitions to adjacent structures and surrounding neighborhoods.
LUD 9.3	Enhanced public space. Ensure that development enhances public spaces: <ul style="list-style-type: none"> • Encourage strong pedestrian-oriented design with visible, accessible entrances and pathways from the street. • Encourage pedestrian-scaled design elements such as stoops, canopies and porches. • Encourages connections to pedestrian and bicycle facilities. • Locate buildings near the edge of the sidewalk. • Encourage design compatibility with surrounding uses. • Locate parking lots to the rear or side of buildings. • Encourage articulation and use of special materials to provide visual interest. • Promote and regulate high-quality sign materials, colors and design that are compatible with site and building design. • Encourage attractive water-efficient landscaping on the ground level.
LUD 9.5	View preservation. Preserve significant views throughout the community.
LUD 9.6	Light and glare. Minimize light and glare from new development.

City of Mountain View Code of Ordinances

The City of Mountain View Zoning Ordinance (Chapter 36 of the City Code) sets forth specific design guidelines, height limits, building density, building design and landscaping standards, architectural features, sign regulations, and open space and setback requirements.

The Zoning Ordinance promotes careful planning of development projects to enhance the visual environment. The City’s development review process includes the review of preliminary plans, the consideration of public input at and by the Development Review Committee (DRC), Zoning Administrator, Environmental Planning Commission (EPC), and the City Council. The City’s Planning Division reviews private development applications for conformance with City plans, ordinances, and policies related to zoning, urban design, subdivision, and CEQA.

The Zoning Administrator makes recommendations to the City Council for development projects located in some Precise Plan areas and makes final decisions for development, variance, and use permits. The DRC reviews the architecture and site design of new development and provides project applicants with design comments/direction. The development review process ensures the architecture and urban design of new developments would protect the City’s visual environment.

4.1.1.2 Existing Conditions

Scenic Vistas

The term scenic vista typically refers to an expansive view of an area that is visually or aesthetically pleasing, usually as seen from an elevated point or open area. The scenic quality of the City is characterized by extensive views to the Santa Cruz Mountains to the south and west and views of other natural features such as the Diablo Mountain range to the southeast, Mission Peak to the east, and Stevens Creek in the eastern portion of the City.⁵ Views of San Francisco Bay are generally available only from Shoreline Park in the North Bayshore Area, and views of ridgelines are available along the City's edges, streets, and other open areas, which are unimpeded by built structures.⁶

The project site is located in a highly developed area of the City. It is located on relatively flat land which limits the amount of expansive views from the project site. Obstructed views of the Santa Cruz Mountains can be seen in the project vicinity, looking south on Linda Vista Avenue and San Rafael Avenue.

There are no state-designated scenic highways in Mountain View. There is only one state-designated scenic highway in Santa Clara County: 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, I-280 from the San Mateo County line to SR 17, and the entire length of SR 152 within the County. The nearest officially designated scenic highway is the segment of I-280 in San Mateo County, which is approximately 6.5 miles west of the project site.⁷ The project site is not visible from a designated state scenic highway.

Visual Character and Quality

The project site is located in an office and industrial part of the City. The project site contains three separate uses and operations: a gated storage facility, a boarded-up single-family residence, and a gated parking area that serves as a safe parking lot.⁸ In total, the project site contains 19 existing buildings: 17 buildings with storage lockers, one rental office, and one non-habitable residence. The 17 drive-up storage locker buildings are single-story structures with flat top roofs, concrete masonry unit (CMU) walls, and large rolling garage doors for each locker unit. The rental office at the storage facility is a taller one-story structure with a combination of flat rooflines and a pyramid hip roof. The storage locker building and rental office total 77,418 square feet. The residence is a dilapidated, uninhabitable one-story and has a façade covered in wooden cladding and a standard hip roof. The safe parking lot is located between the storage facility buildings and single residence. The landscaping on the project site is currently comprised of small shrubs, three on-site trees, one of which is a protected Heritage tree

⁵ City of Mountain View. *Draft 2030 General Plan and Greenhouse Gas Reduction Program Final Environmental Impact Report*. SCH #2011012069. September 2012. Page 477.

⁶ City of Mountain View. *Draft 2030 General Plan and Greenhouse Gas Reduction Program Final Environmental Impact Report*. SCH #2011012069. September 2012. Page 477.

⁷ Caltrans. "California State Scenic Highway System Map." Accessed June 27, 2022.

<https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>.

⁸ "Safe parking" is a City program that gives a temporary, overnight, safe location to park for individuals and families living in a vehicle while providing access to services that will transition them into more stable housing. Source: City of Mountain View. "Safe Parking Program." Accessed September 9, 2022.

https://www.mountainview.gov/depts/comdev/housing/homelessness/safe_parking_program/default.asp.

under Section 32.25 of the City Code.⁹ Additional information regarding the trees on-site can be found in Section 4.4 Biological Resources.

The surrounding area in the immediate vicinity of the project site consists primarily of one- to two-story office and industrial properties. The properties to the west of the project site contain a two-story church and several single-story office buildings. These properties have landscaped areas surrounding the perimeter of the sites. The properties to the south and east of the project site are occupied by one to two-story office buildings with landscaping around the perimeter of the sites and in the surface parking lots. Highway 101 is adjacent to the northern site boundary, and the retaining walls and elevated highways are visible from the project site.

Views of the project site and the surrounding area are shown in Photos 1-6 below.

Location within a Transit Priority Area

The project site is not located within 0.5-mile of a major transit stop; therefore, it is not located in a Transit Priority Area.

⁹ Per City Code Section 32.25, a “Heritage Tree” is any tree that has a trunk with a circumference of 48 inches or more measured at 54 inches above natural grade. Multi-trunk trees are measured just below the first major trunk fork. Three species, quercus (oak), sequoia (redwood) or cedrus (cedar) are considered “Heritage” if they have a circumference of 12 inches measured at 54 inches above natural grade.



Photo 1: View of the existing uninhabitable single-family residence on the southeast corner of the project site.



Photo 2: View of the “safe parking lot” currently located on eastern side of the project site.

PHOTOS 1 & 2



Photo 3: View from the northwest corner of the Terra Bella Avenue and San Rafael Avenue intersection looking south.



Photo 4: View from the northeast corner of the Terra Bella Avenue and Linda Vista Avenue intersection looking west.

PHOTOS 3 & 4



Photo 5: View from the northeast corner of the project site looking west.



Photo 6: View from the southern border of the project site looking north.

PHOTOS 5 & 6

4.1.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
1) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? ¹⁰ If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

As discussed in Section 4.1.1.2, the topography and location of the project area limits the view of scenic resources. The project does not propose development in Shoreline Park, City's edges, streets, or other open areas. The primary scenic resource visible from the project vicinity is the Santa Cruz Mountain Range. Views of the Santa Cruz Mountains are obstructed by existing development throughout most of the project site. Based on the lack of scenic vistas visible from the site, implementation of the project would result in a less than significant impact to scenic vistas. **(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)**

As discussed in Section 4.1.1.2, there are no state-designated scenic highways in Mountain View and the nearest designated scenic highway is approximately 6.5 miles west of the project site. The project site is not visible from that segment of state-designated scenic highway, so the development of the project would not have an adverse impact on the viewshed from the highway. **(No Impact)**

¹⁰ Public views are those that are experienced from publicly accessible vantage points.

Impact AES-3: The project is in an urbanized area and would not conflict with applicable zoning and other regulations governing scenic quality. **(Less than Significant Impact)**

The project would be subject to review by the DRC review process to ensure consistency with the General Plan policies and other regulations identified in Section 4.1.1.1. The project therefore would be designed to be compatible with the neighborhood character, minimize light and glare, have height and setback transitions as appropriate from adjacent structures, enhance public spaces by constructing landscaped seating areas along Terra Bella Avenue, and create a presence on Terra Bella Avenue by facing the residential courtyard towards the street. Based on the above discussion, the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. **(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 project site is located in an urban infill area with existing light sources including lighting from buildings, streetlights, and vehicles travelling on local roads and US-101. Sources of daytime glare include building windows and vehicles. The proposed project would construct a six-story residential building and two storage facility buildings that would range from four- to six-stories in height. All three buildings would include exterior, nighttime security lighting. The interior lighting of the residential units at night would also add to the neighborhood nighttime illumination. New streetlights would also be installed on Linda Vista Avenue, San Rafael Avenue, and Terra Bella Avenue.

The development of the project would replace existing light sources and add additional light sources that would incrementally increase the amount of nighttime lighting on the project site compared to existing condition. However, the project would be subject to the design review process prior to submittal of construction drawings for a building permit. The review would ensure project lighting is directed downward and would not spillover onto adjacent properties or otherwise be highly visible, while providing adequate lighting for safety. The proposed buildings do not contain reflective materials (e.g., large expansive glass) that would introduce new sources of substantial glare. For these reasons, the project would not create a new source of substantial light or glare. **(Less than Significant 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 identified as 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.

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.

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.¹¹ Programs such as CAL FIRE's Fire and Resource Assessment Program and are used to identify whether forest land, timberland, or timberland production areas that could be affected are located on or adjacent to a project site.

4.2.1.2 *Existing Conditions*

The project site has a General Plan land use designation of General Industrial and is zoned MM (General Industrial). The project site is currently developed with one, non-habitable single-story residence and 18, single-story buildings that include drive-up storage lockers and a rental office. The site is surrounded by office and industrial uses. The Santa Clara County Important Farmlands 2016 Map designates the project site as "Urban and Built-Up Land", which is defined as land with at least six structures per 10 acres. Common examples of "Urban and Built-Up Land" are residential, institutional, industrial, commercial, landfill, golf course, airports, and other utility uses.¹² No lands

¹¹ 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)).

¹² California Natural Resources Agency. "Santa Clara County Important Farmland 2016." Accessed June 27, 2022. <https://www.conservation.ca.gov/dlrp/fmmp/Pages/SantaClara.aspx>

adjacent to the project site are used for agricultural production, forest land, or timberland. Surrounding properties are designated, zoned, and used for urban uses. There are no Williamson Act parcels on or in the vicinity of the project site.¹³

4.2.2 **Impact Discussion**

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) Result in a loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Impact AG-1: The project would not 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. **(No Impact)**

The proposed project would redevelop a site that is designated as “Urban and Built-Up Land” on maps prepared by the California Resources Agency for Santa Clara County. Therefore, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be converted to non-agricultural use as a result of project implementation. **(No Impact)**

¹³ County of Santa Clara. “Williamson Act and Open Space Easement.” September 17, 2018. Accessed June 27, 2022. <https://www.sccgov.org/sites/dpd/programs/wa/pages/wa.aspx>.

Impact AG-2:	The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. (No Impact)
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As discussed in Section 4.2.1.2, the project site has a General Plan land use designation of General Industrial and is zoned MM (General Industrial). The project site is not under a Williamson Act contract. Therefore, the project would not conflict with existing zoning for an 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)
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As discussed in Section 4.2.1.2, the project site is not zoned, or adjacent to land zoned, for forest land, timberland, or Timberland Production. It is in an urban area surrounded by urban development. Therefore, the project would not conflict with existing zoning or require rezoning of forest land or timberland uses. **(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)
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The project site is in an urbanized area of the City and is currently developed with a storage facility and an uninhabitable residence. Therefore, no forest land would be lost as a result of the project. **(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. (No Impact)
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The proposed development would occur in an urbanized area of the City. No agricultural or forestry uses are on-site or in the vicinity of the project site. Therefore, the project would not result in impacts to agricultural lands or forest lands. **(No Impact)**

4.3 AIR QUALITY

The following discussion is based, in part, on an Air Quality & Greenhouse Gas Assessment prepared by Illingworth & Rodkin, Inc. dated November 15, 2022. This report is attached as Appendix A to this Initial Study.

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 (O₃), nitrogen oxides (NO_x), particulate matter (PM), carbon monoxide (CO), sulfur oxides (SO_x), and lead.¹⁴ Criteria pollutants are regulated because they result in health effects. The most commonly regulated criteria pollutants in the Bay Area are discussed further below. An overview of the sources and the associated health effects are summarized in Table 4.3-1.

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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• Reduced lung function, especially in children• Aggravation of respiratory and cardiorespiratory diseases• Increased cough and chest discomfort• Reduced visibility
Toxic Air Contaminants (TACs)	Cars and trucks, especially diesel-fueled; industrial sources, such as chrome platers; dry cleaners and service stations; building materials and products	<ul style="list-style-type: none">• Cancer• Chronic eye, lung, or skin irritation• Neurological and reproductive disorders

High O₃ levels are caused by the cumulative emissions of reactive organic gases (ROG) and NO_x. NO₂ is one of the most prevalent nitrogen oxides that combines with nitric oxide (NO) to form NO_x (nitrogen oxides). These precursor pollutants react under certain meteorological conditions to form high O₃ levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts

¹⁴ 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.

to reduce O₃ levels. The highest O₃ 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 (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ 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).¹⁵ 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 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 schools with children under 16.

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, O₃, CO, SO_x, NO_x, and lead.

¹⁵ California Air Resources Board. "Overview: Diesel Exhaust and Health." Accessed July 6, 2022. <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>.

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 addition 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.

California Green Building Standards Code

Section 5.504.4.5 of the California Green Building Standards Code (CALGreen) requires hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building to meet the requirements for formaldehyde as specified in CARB's Air Toxics Control Measure (ATCM) for composite wood (17 CCR 93120 et seq.), and materials that are not exempt by ATCM must meet specified emission limits required in CALGreen Table 5.504.4.5 – Formaldehyde Limits.

Regional and Local

2017 Clean Air Plan

The Bay Area Air Quality Management District (BAAQMD) is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards will be met. BAAQMD's most recently adopted plan is the Bay Area 2017 Clean Air Plan (2017 CAP). The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the 2017 CAP describes how BAAQMD will continue its progress toward attaining state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 CAP includes control measures designed to reduce emissions of methane and other super-greenhouse gases (GHGs) that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.¹⁶

¹⁶ Bay Area Air Quality Management District. *Final 2017 Clean Air Plan*. April 19, 2017.
<http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>.

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.

City of Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant air quality impacts. The following policies are applicable to the proposed project.

Policy	Description
INC 20.6	Air quality standards. Protect the public and construction workers from construction exhaust and particulate emissions.
INC 20.7	Protect sensitive receptors. Protect the public from substantial pollutant concentrations.
INC 20.8	Offensive odors. Protect residents from offensive odors.
MOB 9.2	Reduced vehicle miles traveled. Support development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita VMT.

4.3.1.3 *Existing Conditions*

The Bay Area is considered a non-attainment area for ground-level O₃ and PM_{2.5} under both the federal Clean Air Act and state Clean Air Act. The area is also considered nonattainment for PM₁₀ under the state act, but not the federal act. The area has attained both state and federal ambient air quality standards for CO.

The air quality analysis conservatively assumed that the former residential building 60 feet east of the project site, currently occupied by a roofing company, is the closest sensitive receptor to the project site. The second closest sensitive receptor is located approximately 260 feet southeast of the project site (refer to Figure 4.3-1).



LOCATIONS OF OFF-SITE SENSITIVE RECEPTORS

FIGURE 4.3-1

4.3.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

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 Mountain View 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 4.3-2 below.

Table 4.3-2: BAAQMD Air Quality Significance Thresholds			
Pollutant	Construction Thresholds	Operation Thresholds	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	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 µg/m ³	0.8 µg/m ³ (average)	

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

The BAAQMD CEQA Air Quality Guidelines set forth criteria for determining consistency with the 2017 CAP. In general, a project is considered consistent if a) it supports the primary goals of the 2017 CAP; b) it includes relevant control measures; and c) it does not interfere with implementation of the 2017 CAP control measures.

Support of Primary 2017 Clean Air Plan Goals

As discussed in Section 4.3.1.1 Regulatory Framework, the goals of the 2017 CAP include 1) protecting public health by progressing towards attaining air quality standards and eliminating health risk and 2) protecting the climate. If a project exceeds the BAAQMD criteria air pollutants thresholds of significance, its emissions are considered to result in significant adverse air quality impacts to the region's existing air quality conditions. An analysis of the project's construction and operational air pollutant emissions is provided below.

Construction Period Emission

Implementation of the proposed project would result in short-term emissions from construction activities associated with development, including demolition, site grading, asphalt paving, building construction, and architectural coating. Emissions commonly associated with construction activities include fugitive dust from soil disturbance, fuel combustion from mobile heavy-duty diesel- and gasoline-powered equipment, portable auxiliary equipment, and worker commute trips. During construction, fugitive dust, the dominant source of PM₁₀ and PM_{2.5} emissions, is generated when wheels or blades disturb surface materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby.

Demolition and construction of buildings can also generate PM₁₀ and PM_{2.5} emissions. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_x emissions, in addition to PM₁₀ and PM_{2.5} emissions. Diesel exhaust from construction equipment poses both a health and nuisance impact to nearby receptors.

Construction period emissions were modeled based on equipment list and schedule information provided by the applicant. Refer to Appendix A for details about the modeling, data inputs, and assumptions. The average daily construction criteria air pollutant emissions of the proposed project are summarized in Table 4.3-3 below. As shown in Table 4.3-3, the construction period emissions would be below the BAAQMD significance thresholds.

Table 4.3-3: Average Daily Construction Period Criteria Pollutant Emissions				
Emission Source	Emissions (pounds/day)*			
	NO_x	ROG	PM₁₀	PM_{2.5}
Residential Building (2024)*	3.94	4.61	0.22	0.17
Residential Building and Storage Building 1 (2025)	11.87	4.63	0.24	0.17
Storage Building 2 (2026)	4.98	2.49	0.12	0.09
Significance Threshold	54	54	82	54
<i>Significant?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
* Includes one month of construction in 2023				

BAAQMD considers construction emission impacts that are below the thresholds of significance (such as those of the project) less than significant if Best Management Practices (BMPs) are implemented. The City requires the BMPs as a City standard condition of approval.

City Standard Condition of Approval

COA AIR-1.1: Basic Air Quality Construction Measures: The applicant shall require all construction contractors to implement the basic construction mitigation measures recommended by the Bay Area Air Quality Management District (BAAQMD) to reduce fugitive dust emissions. Emission reduction measures shall include, at a minimum, the following measures: (a) all exposed surfaces (e.g., parking areas,

staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day; (b) all haul trucks transporting soil, sand, or other loose material off-site shall be covered; (c) 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; (d) all vehicle speeds on unpaved roads will be limited to 15 mph; (e) 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; (f) idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measures Title 13, Section 2485, of the California Code of Regulations). Clear signage shall be provided for construction workers at all access points; (g) 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; and (h) post a publicly visible sign with the telephone number and person to contact at the City of Mountain View regarding dust complaints. This person shall respond and take corrective action within 48 hours. BAAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

With implementation of the City standard condition of approval COA AIR-1.1, the project construction period emission would be reduced to a less than significant level by controlling dust, limiting equipment idling, and properly maintaining equipment. **(Less than Significant Impact)**

Operational Period Emissions

Operational emissions from the project would be generated primarily from vehicles driven by future residents, employees, and customers. Vehicle trips from the project were calculated in the Transportation Analysis (TA) completed for the project (refer to Appendix K). Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are also typical emissions from the proposed land use. The operational emissions of the project were modeled, and the results are summarized in Table 4.3-4. Refer to Appendix A for details about the modeling, data inputs, and assumptions. As shown in Table 4.3-4, the project's operation emissions would be below the BAAQMD annual tons per year and average pounds per day significance thresholds. The project, therefore, would not result in significant operational criteria air pollutant emissions.

Table 4.3-4: Operational Period Criteria Pollutant Emissions				
Emission Source	Annual Emissions (tons/year)			
	NO _x	ROG	PM ₁₀	PM _{2.5}
Tons Per Year				
Annual Project Operational Emissions (2027)	2.94	0.43	0.99	0.25
Existing Use Emissions (2022)	0.46	0.09	0.12	0.03
Net Annual Emissions (A-B)	2.48	0.34	0.87	0.22
Significance Threshold	10	10	15	10
<i>Significant?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
Pounds Per Day				
Daily Project Operational Emissions (2027)*	13.61	1.89	4.74	1.21
Significance Threshold	54	54	82	54
<i>Significant?</i>	<i>No</i>	<i>No</i>	<i>No</i>	<i>No</i>
* Assumes 365-day operation				

Community Health Risk

Development of the proposed project can increase the health risk of existing sensitive receptors during construction and operation. Temporary project construction activity which generates dust and equipment exhaust would affect nearby sensitive receptors. Operation of the project would result in an increase in traffic, which would increase air pollutant and TAC emissions in the area. Community risk impacts were addressed by predicting increased cancer risk, the increase in annual PM_{2.5} concentrations and computing the Hazard Index (HI) for non-cancer health risks. To evaluate the increased cancer risks from the project, a 30-year exposure period was used, per BAAQMD guidance, with the sensitive receptors being exposed to both project construction and operation emissions during this timeframe. Unlike the increased maximum cancer risk, the annual PM_{2.5} concentration and HI values are not additive but based on the annual maximum values for the entirety of the project.

The project's community risk impacts to existing sensitive receptors for construction activities and operational activities, and cumulative community risk impacts combined with other existing sources of TACs in the project area are discussed below.

Construction Period Emissions

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a TAC. Construction exhaust emissions may pose health risks for sensitive receptors near the project. The primary community risk impact issue associated with construction emissions are cancer risk and exposure to PM_{2.5}.

Table 4.3-5 summarizes the maximum excess cancer risk, annual PM_{2.5} concentration, and non-cancer HI based on the maximum DPM concentration affecting the maximally exposed individual (MEI), which is the sensitive receptor affected the most by project construction emissions. The MEI for cancer

risk and PM_{2.5} during construction period is located on the first floor of a single-family residence southeast of the project site (as shown on Figure 4.3-1).¹⁷ As shown in Table 4.3-5, the construction risk impacts from the proposed project exceeds the BAAQMD single-source threshold for incremental cancer risk, while the single-source PM_{2.5} and HI thresholds are not exceeded.

Table 4.3-5: Project Health Risk Impacts to the Off-Site MEI			
Emission Source	Cancer Risk (per million)*	Annual PM_{2.5} (mg/m³)*	Hazard Index
Project Construction			
Unmitigated	11.08	0.15	0.01
Mitigated*	3.52	0.06	<0.01
BAAQMD Single-Source Threshold	10.0	0.3	1.0
<i>Exceed Threshold? Unmitigated</i>	Yes	<i>No</i>	<i>No</i>
<i>Mitigated*</i>	<i>No</i>	<i>No</i>	<i>No</i>
* Construction equipment with Tier 4 interim engines and BMPs as mitigation measures.			

Mitigation Measure:

MM AIR-1.1: The project shall implement the below measures to control diesel particulate matter emissions during construction. This list of measures shall be incorporated into the approved building plan set.

1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for NO_x and PM, if feasible, otherwise,
 - a. If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a 60 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination). Use of alternatively-fueled equipment with lower NO_x emissions that meet the NO_x and PM reduction requirements above.
 - b. Use of electrical or non-diesel fueled equipment.

Alternatively,

2. The applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction diesel particulate matter emissions by 60 percent or greater.

¹⁷ The closest sensitive receptor, east of the project site, is not the project MEI. The second closest sensitive receptor is the project MEI. This is due to the concentrations and timing of the phased construction activities and the north-northwest wind flow based on the Moffett Federal Airfield wind rose.

Elements of the plan could include a combination of some of the following measures:

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

Such a construction operations plan shall be prepared by an air quality expert and approved by the City prior to construction.

Modeling was completed to determine the effectiveness of the City standard condition of approval COA AIR-1.1 (implementation of BAAQMD BMPs) and mitigation measure MM AIR-1.1 (restricting the project wide-fleet emissions) at reducing health risk impacts to the project MEI. The modeling results show that with the implementation of the City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1, the project's significant cancer risk construction impact would be reduced to a less than significant level (see Table 4.3-4). Refer to Appendix A for additional details about the modeling. **(Less than Significant Impact with Mitigation Incorporated)**

Operational Period Emissions

The project does not propose stationary equipment that could emit substantial TACs, such as diesel emergency generators or fire pumps. The project would generate additional vehicle trips compared to existing conditions, resulting in increased TACs from diesel vehicles. However, BAAQMD considers a road with less than 10,000 total vehicles per day a low-impact source of TACs. The project would generate 1,117 daily trips or 996 net daily trips compared to existing conditions. The project traffic would be dispersed on the roadway system with most of the trips being from light-duty vehicles (i.e., passenger automobiles), which is a fraction of 10,000 daily vehicles.

In addition, projects with the potential to cause or contribute to increased cancer risk from traffic include those that have attract high numbers of diesel-powered on road trucks or use off-road diesel equipment on-site, such as a warehouse distribution center, a quarry, or a manufacturing facility, which could expose existing or future planned receptors to substantial cancer risk levels and/or health hazards. The proposed project is not a project of concern for non-BAAQMD permitted mobile sources. Therefore, emissions from project traffic are considered negligible and less than significant.

In addition, the City requires the following standard condition of approval to address community health risks from interior finishes containing formaldehyde.

City Standard Condition of Approval:

COA AIR-1.2: Indoor Formaldehyde Reductions: If the project utilizes composite wood materials (e.g., hardwood plywood, medium density fiberboard, particleboard) for interior finishes, then only composite wood materials that are made with CARB approved, no-added formaldehyde (NAF) resins, or ultra-low emitting formaldehyde (ULEF) resins shall be utilized (CARB, Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products, 17 CCR Section 93120, et seq., 2009-2013).

For these reasons, the project operation would not result in a significant health risk effect to off-site receptors. **(Less than Significant Impact)**

Cumulative Emissions

By its very nature, air pollution is largely a cumulative impact. The geographic area for cumulative impacts to sensitive receptors is within 1,000 feet of the project site. This distance is recommended by BAAQMD because adverse effects are the greatest within this distance. At further distances, health risk diminishes. A review of the project area indicates existing sources of TACs within or approximately 1,000 feet of the project site. These sources include three roadways with over 10,000 vehicles per day (U.S. 101, State Route 85 ramps, and Shoreline Boulevard), and six stationary sources (three diesel generators, a gas dispensing facility, and two generic sources). In addition, the construction emissions from the following development projects could contribute to the cumulative health risk:

- 1001 North Shoreline Boulevard (150 feet west) – two buildings totaling 303 dwelling units and six levels office space (approved)
- 1155 & 1185 Terra Bella Avenue (400 feet southwest) – 20,000-square foot office building (proposed/pending)

Community risk impacts from the cumulative sources to the project MEIs were modeled and the results are summarized in Table 4.3-6.¹⁸ Refer to Appendix A for details about the modeling, data inputs, and assumptions. As shown in Table 4.3-6, the project would create a significant cumulative annual PM_{2.5} impact; however, implementation of City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1 would reduce the cumulative impact to a less than significant level. The project would not exceed the BAAQMD cumulative thresholds for cancer risk and HI.

¹⁸ The six stationary sources were modeled. The mitigated construction risk and hazard impact values for the 1001 North Shoreline Boulevard project were calculated in the air quality technical report prepared for this project's EIR, which is available on the City's website (<https://www.mountainview.gov/depts/comdev/planning/activeprojects/1001nshoreline.asp>). The environmental review for 1155 & 1185 Terra Bella Avenue project (also available on the City's website) concluded its health risk would be less than significant. For this reason, the risk for this project was assumed to be below the BAAQMD single-source thresholds.

Table 4.3-6: Cumulative Health Risk Impacts to the Off-Site MEI			
Emission Source	Cancer Risk (per million)	Annual PM _{2.5} (mg/m ³)	Hazard Index
Project Construction			
Unmitigated	11.08	0.15	0.01
Mitigated*	3.52	0.06	<0.01
U.S. 101, Average Daily Trips (ADT) 202,801	11.83	0.54	<0.01
S.R. 85, ADT 67,600	2.44	0.15	<0.01
Shoreline Boulevard, ADT 29,045	0.14	0.01	<0.01
Teledyne Microwave (Facility ID#1127, Manufacturing), MEI at +1,000 feet	---	---	---
Sankt Andreas Backhaus (Facility ID #2867, Oven), MEI at 330 feet	<0.01	---	---
Santa Clara Valley Transportation Authority (Facility ID #13038, Generator), MEI at +1,000 feet	0.24	---	<0.01
New Cingular Wireless PCS LLC dba AT&T Mobility (Facility ID #22347, Generators), MEI at +1,000 feet	0.05	---	---
Santa Clara Valley Transportation Authority (Facility ID #11934, Gas Dispensing Facility), MEI at +1,000 feet	<0.01	---	---
Microsoft Corporation (Facility ID #201699, Generator) MEI at 960 feet	1.13	<0.01	<0.01
1001 North Shoreline Boulevard Mitigated Construction Emissions at 150 feet	<5.40	<0.08	<0.01
1155 & 1185 Terra Bella Avenue Mitigated Construction Emissions at 400 feet	<10.0	<0.30	<1.00
Combined Sources			
Unmitigated	<42.33	<1.24	<1.07
Mitigated*	<34.77	<1.15	<1.07
BAAQMD Cumulative Source Threshold	100	0.8	10.0
<i>Exceed Threshold?</i>			
<i>Unmitigated</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
<i>Mitigated*</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
*Assumes implementation of City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1.			

As discussed above under project construction impacts, the project would not result in significant health risks to nearby sensitive receptors with the implementation of City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1. As shown in Table 4.3-6, with implementation of City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1, the cumulatively significant annual PM_{2.5} impact of the project would still exceed the cumulative threshold due to the contribution of non-project sources. City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1 represent the best available measures to reduce project construction period emissions. The PM_{2.5} concentration from existing sources and potential simultaneous nearby developments exceed the cumulative threshold even without the project due to local roadways and the simultaneous construction of the other cumulative developments (i.e., the approved 1001 North Shoreline Boulevard project and the proposed/pending 1155 & 1185 Terra Bella Avenue project) at the project MEI. The project's mitigated PM_{2.5} concentration represents five percent of the total mitigated cumulative concentration. In addition, according to BAAQMD, health risks would be less than significant to the MEI if the risks from the project are reduced below the single-source thresholds. For these reasons, the project's contribution is not cumulatively considerable. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Health Effects from Criteria Air Pollutants

In a 2018 decision (*Sierra Club v. County of Fresno*), the state Supreme Court determined CEQA requires that when a project's criteria air pollutant emissions would exceed applicable thresholds and contribute a cumulatively considerable contribution to a significant cumulative regional criteria pollutant impact, the potential for the project's emissions to affect human health in the air basin must be disclosed. 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 2017 BAAQMD CEQA Air Quality Guidelines, air pollution by its nature is largely a cumulative impact. No single project is sufficient in size, by itself, 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 pollutants, it is assumed to have no adverse health effect. As discussed above, the project's construction and operation emissions would be below the BAAQMD criteria air pollutant emissions thresholds with the implementation of City standard conditions of approval. For these reasons, the project's criteria air pollutant emissions would not result in a significant health impact. **(Less than Significant Impact)**

Consistency with 2017 Clean Air Plan Control Measures

Because the project would not exceed the BAAQMD impact thresholds for criteria air pollutant emissions, the project is not required to incorporate project-specific control measures listed in the 2017 CAP. Furthermore, 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. Based on the above discussion, the project would not conflict with 2017 CAP. **(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)
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As discussed previously in above, the Bay Area is considered a non-attainment area for ground-level O₃ and PM_{2.5} under both the federal and state Clean Air Act. The area is also considered a nonattainment area for PM₁₀ under the state act, but not the federal act. The Bay Area has attained both state and federal ambient air quality standards for CO. As part of an effort to attain and maintain ambient air quality standards for O₃ and PM₁₀, BAAQMD has established thresholds of significance for these air pollutants and their precursors, as listed in Table 4.3-2. These thresholds are for O₃ precursor pollutants (ROG and NO_x), PM₁₀, and PM_{2.5}, and apply to both construction period and operational period impacts.

As discussed under Impact AIR-1, the construction period and operational period criteria air pollutant emissions would not exceed the BAAQMD thresholds of significance, and the project would implement BAAQMD-recommended construction BMPs to controlling dust, limiting equipment idling, and properly maintaining equipment. For these reasons, the project would not result in a significant cumulative criteria pollutant impact. **(Less than Significant Impact)**

Impact AIR-3:	The project would not expose sensitive receptors to substantial pollutant concentrations. (Less than Significant Impact with Mitigation Incorporated)
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As discussed under Impact AQ-1 above, project would result in exposure of sensitive receptors near the project site to TAC emissions in excess of BAAQMD risk thresholds for excess cancer cases and annual PM_{2.5} concentrations from construction emissions. Implementation of City standard condition of approval COA AIR-1.1 and mitigation measures MM AIR-1.1 identified under Impact AIR-1 would reduce the construction health risk to a less than significant level. As discussed under Impact AIR-1, the project does not propose uses that would result in significant operational health risk impacts and would implement City standard condition of approval COA AIR-1.2 to reduce any emissions from indoor formaldehyde to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

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)
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According to BAAQMD's CEQA Guidelines, an odor source with five or more confirmed complaints per year averaged over three years is considered to have a significant impact. 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 highly diffusive properties of diesel exhaust, odorous exposure of sensitive receptors to these emissions would be limited and the impact is considered less than significant.

BAAQMD has identified a variety of land uses and types of operations that would produce emissions that may lead to odors. Land uses identified include wastewater treatment plants, sanitary landfills,

food processing facilities, coffee roasters, composting facilities, and confined animal facility/feed lot/dairy facility. The project proposes residential and storage facility uses, which do not fall under any of the land uses identified by BAAQMD to cause objectionable odors. Therefore, the impact would be less than significant. **(Less than Significant Impact)**

4.3.3 Non-CEQA Effects

Per *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 Mountain View has General Plan Policy INC 20.7 that address existing air quality conditions affecting a proposed project.

In addition to evaluating health impacts from project construction and cumulative TAC sources on existing sensitive receptors (as discussed in Section 4.3.2 Impact Discussion), a health risk assessment was completed to analyze the health effects of project construction (Phase 2 storage building) and existing TAC sources (same off-site sources identified above) on future residents of the proposed project. The criteria used by the City of Mountain View for determining whether new receptors would be affected are the same as those listed for Single-Source Health Risk and Combined Cumulative Health Risk in Table 4.3-2, above. The community health risk to future residences including the on-site managers residing in the manager's units was evaluated and the results are summarized in Table 4.3-7 and Table 4.3-8, respectively. Refer to Appendix A for details about the modeling, data inputs, and assumptions.

Health Risk Effects to Future Residences in the Residential Building

As shown in Table 4.3-7, the health risk to the residents from Phase 2 construction and U.S. 101 would exceed the BAAQMD single-source threshold for cancer risk, from U.S. 101 and S.R. 85 would exceed the BAAQMD single-source threshold for annual PM_{2.5}, and from cumulative sources would exceed the BAAQMD cumulative-source threshold for annual PM_{2.5}.

Table 4.3-7: Cumulative Health Risk Effects to Future Residences in the Residential Building			
Emission Source	Cancer Risk (per million)	Annual PM_{2.5} (mg/m³)	Hazard Index
Project Construction			
Unmitigated	21.84	0.27	0.02
Mitigated*	4.67	0.09	0.01
U.S. 101, Average Daily Trips (ADT) 208,651			
Without MERV16	22.46	1.14	<0.01
With MERV 16	7.59	0.23	<0.01
S.R. 85, ADT 69,550			
Without MERV16	4.78	0.34	<0.01

Table 4.3-7: Cumulative Health Risk Effects to Future Residences in the Residential Building			
Emission Source	Cancer Risk (per million)	Annual PM _{2.5} (mg/m ³)	Hazard Index
With MERV 16	1.91	0.07	<0.01
Shoreline Boulevard, ADT 29,899			
Without MERV16	0.22	0.02	<0.01
With MERV 16	0.11	<0.01	<0.01
Teledyne Microwave (Facility ID#1127, Manufacturing), MEI at +1,000 feet	---	---	---
Sankt Andreas Backhaus (Facility ID #2867, Oven), MEI at 330 feet	<0.01	---	---
Santa Clara Valley Transportation Authority (Facility ID #13038, Generator), MEI at +1,000 feet	0.49	---	<0.01
New Cingular Wireless PCS LLC dba AT&T Mobility (Facility ID #22347, Generators), MEI at +1,000 feet	0.05	---	---
Santa Clara Valley Transportation Authority (Facility ID #111934, Gas Dispensing Facility), MEI at +1,000 feet	<0.01	---	---
Microsoft Corporation (Facility ID #201699, Generator) MEI at 960 feet	2.55	<0.01	<0.01
BAAQMD Single Source Threshold	10	0.3	1.0
<i>Exceed Threshold?</i>			
<i>Unmitigated</i>	Yes	Yes	<i>No</i>
<i>Mitigated*</i>	<i>No</i>	<i>No</i>	<i>No</i>
Combined Sources			
Unmitigated and Without MERV16	<52.41	<1.78	<0.07
Mitigated and With MERV16*	<17.39	<0.41	<0.06
BAAQMD Cumulative Source Threshold	100	0.8	10.0
<i>Exceed Threshold?</i>			
<i>Unmitigated Without MERV16</i>	<i>No</i>	Yes	<i>No</i>
<i>Mitigated and With MERV16*</i>	<i>No</i>	<i>No</i>	<i>No</i>
*Assumes implementation of City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1.			

Condition of Approval

COA AIR-5.1: The project shall implement the measures:

- Install air filtration for the Residential Building and manager's unit if located in Storage Building 1. Air filtration devices shall be rated MERV16 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.
- 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
- As part of implementing this measure, an ongoing maintenance plan for the buildings' heating, ventilation, and air conditioning (HVAC) air filtration system shall be required that includes regular filter replacement.
- Ensure that the use agreement 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.

With implementation of the above condition of approval, the ventilation system for the residential units would achieve an 80-percent reduction for small particles and reduce the cancer risk (from U.S. 101) and maximum annual PM_{2.5} concentrations (from U.S. 101 and S.R 85) below the BAAQMD single-source cancer risk and annual PM_{2.5} concentrations and cumulative-source annual PM_{2.5} concentrations thresholds. With implementation of City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1, the construction cancer risk and annual PM_{2.5} concentrations would be reduced below the BAAQMD single-source thresholds.

Health Risk Effects to Future Storage Facility Manager in Storage Building 1

As shown in Table 4.3-8, the health risk of the storage facility manager in Storage Building 1 from U.S. 101 would exceed the BAAQMD single-source threshold for cancer risk, from U.S. 101 and S.R. 85 would exceed the BAAQMD single-source threshold for annual PM_{2.5}, and from cumulative sources would exceed the BAAQMD cumulative-source threshold for annual PM_{2.5}.

Table 4.3-8: Cumulative Health Risk Effects to Future Manager in Storage Building 1			
Emission Source	Cancer Risk (per million)	Annual PM_{2.5} (mg/m³)	Hazard Index
Project Construction			

Table 4.3-8: Cumulative Health Risk Effects to Future Manager in Storage Building 1			
Emission Source	Cancer Risk (per million)	Annual PM _{2.5} (mg/m ³)	Hazard Index
Unmitigated	2.24	0.11	<0.01
Mitigated*	0.48	0.05	<0.01
U.S. 101, Average Daily Trips (ADT) 208,651			
Without MERV16	28.69	1.50	<0.01
With MERV 16	9.82	0.30**	<0.01
S.R. 85, ADT 69,550			
Without MERV16	5.78	0.42	<0.01
With MERV 16	2.35	0.08	<0.01
Shoreline Boulevard, ADT 29,899			
Without MERV16	0.21	0.02	<0.01
With MERV 16	0.10	<0.01	<0.01
Teledyne Microwave (Facility ID#1127, Manufacturing), MEI at +1,000 feet	---	---	---
Sankt Andreas Backhaus (Facility ID #2867, Oven), MEI at 330 feet	<0.01	---	---
Santa Clara Valley Transportation Authority (Facility ID #13038, Generator), MEI at +1,000 feet	0.49	---	<0.01
New Cingular Wireless PCS LLC dba AT&T Mobility (Facility ID #22347, Generators), MEI at +1,000 feet	0.05	---	---
Santa Clara Valley Transportation Authority (Facility ID #111934, Gas Dispensing Facility), MEI at +1,000 feet	<0.01	---	---
Microsoft Corporation (Facility ID #201699, Generator) MEI at 960 feet	2.55	<0.01	<0.01
BAAQMD Single Source Threshold	10	0.3	1.0
<i>Exceed Threshold?</i>			
<i>Unmitigated</i>	Yes	Yes	<i>No</i>
<i>Mitigated*</i>	<i>No</i>	<i>No**</i>	<i>No</i>
Combined Sources			
Unmitigated and Without MERV16	<40.03	<2.06	<0.06
Mitigated and With MERV16*	<15.86	<0.45	<0.06
BAAQMD Cumulative Source Threshold	100	0.8	10.0

Table 4.3-8: Cumulative Health Risk Effects to Future Manager in Storage Building 1			
Emission Source	Cancer Risk (per million)	Annual PM_{2.5} (mg/m³)	Hazard Index
<i>Exceed Threshold?</i>			
<i>Unmitigated Without MERV16</i>	<i>No</i>	<i>Yes</i>	<i>No</i>
<i>Mitigated and With MERV16*</i>	<i>No</i>	<i>No</i>	<i>No</i>
<p>*Assumes implementation of City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1.</p> <p>** Mitigated/With MERV16 PM_{2.5} concentration from U.S. 101 is at, but not exceeding, the single-source threshold.</p>			

With implementation of the above City standard condition of approval, the ventilation system for the manager's unit would achieve an 80-percent reduction for small particles and reduce the cancer risk (from US 101) and maximum annual PM_{2.5} concentrations (from U.S. 101 and S.R 85) below the BAAQMD single-source cancer risk and annual PM_{2.5} concentrations and cumulative-source annual PM_{2.5} concentrations thresholds.

4.4 BIOLOGICAL RESOURCES

The discussion in this section is based in part on arborist reports prepared by HMM Engineers dated September 27, 2022 (for 1040 Terra Bella) and March 7, 2022 (for 1020 Terra Bella). These reports are attached to this Initial Study as Appendix B and Appendix C, respectively.

4.4.1 Environmental Setting

4.4.1.1 *Regulatory Framework*

Federal and State

Endangered Species Act

Individual plant and animal species listed as rare, threatened, or endangered 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. This includes direct and indirect acts, except for harassment and habitat modification, which are not included unless they result in direct loss of birds, nests, or eggs. 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.

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

Santa Clara Valley Habitat Plan/Natural Community Conservation Plan

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

Local

Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts to biological resources. The following policies are applicable to the proposed project.

Policy	Description
Infrastructure and Conservation Element	
INC 16.3	Habitat. Protect and enhance nesting, foraging and other habitat for special-status species and other wildlife.
INC 16.6	Built environment habitat. Integrate biological resources, such as green roofs and native landscaping, into the built environment.
Parks, Open Space and Community Facilities Element	
POS 12.1	Heritage trees. Protect trees as an ecological and biological resource.
POS 12.2	Urban tree canopy. Increase tree canopy coverage to expand shaded areas, enhance aesthetics and help reduce greenhouse gases.
POS 12.3	Planter strip. Require tree planter strips be wide enough to support healthy trees and well-maintained public infrastructure.
POS 12.4	Drought-tolerant landscaping. Increase water-efficient, drought-tolerant and native landscaping where appropriate on public and private property.

Mountain View Heritage Tree Preservation Ordinance

The City of Mountain View tree regulations protect all trees designated as “Heritage” trees (Chapter 32, Article 2). Under this ordinance, a Heritage tree is defined as any one of the following:

- A tree which has a trunk with a circumference of forty-eight (48) inches or more measured at fifty-four (54) inches above natural grade;
- A multi-branched tree which has major branches below fifty-four (54) inches above the natural grade with a circumference of forty-eight (48) inches measured just below the first major trunk fork;
- Any Quercus (oak), Sequoia (redwood), or Cedrus (cedar) tree with a circumference of twelve (12) inches or more when measured at fifty-four (54) inches above natural grade; or
- A tree or grove of trees designated by resolution of the City Council to be of special historical value or of significant community benefit.

A tree removal permit is required from the City of Mountain View for the removal of Heritage trees. It is unlawful to willfully injure, damage, destroy, move or remove a Heritage tree.

4.4.1.2 *Existing Conditions*

The project site is completely developed and within an urban area. The site provides habitat and foraging opportunities for urban-adapted birds. Habitats primarily associated with Bay Area special-status species, such as riparian, wetland, salt marsh, freshwater marsh, and serpentine grassland habitats, are not present on or adjacent to the site. The nearest waterway is Stevens Creek, which is located approximately 0.22-mile to the east of the project site.

The primary biological resources on-site are trees. The project site currently contains three on-site trees, one of which is a protected Heritage tree under Section 32.25 of the City Code, and 15 street trees located in public right of way. The tree locations are shown on Figure 4.4-1. The arborist reports evaluated the health and suitability for preservation of the trees on-site and found nine trees had a “good” preservation suitability, eight trees had a “moderate” preservation suitability, and one tree had a “poor” preservation suitability. The predominant tree species on-site are Chinese Pistache trees and sweetgum trees, each of which comprise approximately 28 percent (or 56 percent combined) of the trees within the project site. The largest tree identified is a red flowering gum tree located on the southern border of the project site along Terra Bella Avenue, which has a trunk circumference of approximately 148 inches and is in moderate health.



EXISTING TREE LOCATIONS

FIGURE 4.4-1

4.4.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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)**

As discussed in Section 4.4.1.2 Existing Conditions, given the urbanized nature of the project site and surrounding area, there are no sensitive habitats or special-status species on or adjacent to the project site. Of the existing 18 trees (three on-site trees and 15 street trees in public right-of-way, 17 would be removed due to interference with the project design including the right-of-way improvements (detached sidewalk with landscape and street trees). The trees could provide nesting habitat for birds,

including migratory birds and raptors. Nesting birds are protected under provisions of the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 2800.

Construction of the project during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes abandonment and/or loss of reproductive effort is considered a taking by the CDFW. Any loss of fertile eggs, nesting raptors, or any activities resulting in nest abandonment would constitute an impact. Construction activities such as tree removal and site grading that disturb a nesting bird or raptor on-site or immediately adjacent to the construction zone would also constitute an impact.

In compliance with the MBTA and the CDFW code, the proposed project shall implement the following City standard condition of approval, to reduce or avoid construction-related impacts to nesting raptors and their nests.

City Standard Condition of Approval

COA BIO-1.1: Preconstruction Nesting Bird Survey: To the extent practicable, vegetation removal and construction activities shall be performed from September 1 through January 31 to avoid the general nesting period for birds. If construction or vegetation removal cannot be performed during this period, preconstruction surveys shall be performed no more than two days prior to construction activities to locate any active nests as follows:

The applicant shall be responsible for the retention of a qualified biologist to conduct a survey of the project site and surrounding 500' for active nests—with particular emphasis on nests of migratory birds—if construction (including site preparation) begins during the bird nesting season, from February 1 through August 31. If active nests are observed on either the project site or the surrounding area, the qualified biologist, in coordination with the appropriate City staff, shall establish no-disturbance buffer zones around the nests (usually 100' for perching birds and 300' for raptors). The no-disturbance buffer shall remain in place until the biologist determines the nest is no longer active or the nesting season ends. If construction ceases for two days or more and then resumes during the nesting season, an additional survey shall be necessary to avoid impacts on active bird nests that may be present.

With the implementation of the above City standard condition of approval COA BIO-1.1, the project would result in a less than significant impact to nesting birds because preconstruction surveys would ensure no nesting birds or nests are located on-site during construction, and if they are, buffer zones would be established around nests during construction. **(Less than Significant Impact)**

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 and adjacent sites are fully developed and do not contain sensitive habitats. There is no riparian habitat on or adjacent to the site. The nearest waterway is Stevens Creek, which is approximately 0.22-mile east of the project site and is separated from the site by development and U.S. 101. Therefore, the project would not have an impact on state or federally protected riparian habitat or other sensitive natural community identified in local or regional plans and policies. **(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)**

There is no wetland on or adjacent to the site. The nearest wetland to the project site is the riverine habitat located approximately 0.22-mile east of the project site at Stevens Creek.¹⁹ Therefore, the project would not have an impact on state or federally 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. **(Less than Significant Impact)**

Because the project site is surrounded by urban development, the site provides minimal dispersal habitat for native wildlife and does not function as a wildlife movement corridor. As discussed above, under Impacts BIO-2 and BIO-3, there are no riparian or wetland habitats on or adjacent to the site. The project would implement the City standard condition of approval COA BIO-1.1 under Impact BIO-1 to protect nesting birds, if present during construction. The project would, therefore, not substantially interfere with the movement of fish or wildlife species, nor interfere with established corridors or wildlife nursery sites. **(Less than Significant Impact)**

¹⁹ United States Fish and Wildlife Service. *National Wetlands Inventory, Surface Waters and Wetlands*. Map. May 2021.

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)**

General Plan Policies

The General Plan contains policies (General Plan Policies INC 16.3, INC 16.6, POS 12.1, POS 12.2, and POS 12.4) that protect habitat for special-status species, heritage trees, and the urban tree canopy, integrate biological resources to the built environment, and enhance the urban landscape. As discussed under Impact BIO-1, the project would conduct a pre-construction nesting bird survey if construction activities would take place during nesting season. This would protect any potential nesting birds by establishing a protective buffer around the nests. The project would install new landscaping throughout the project site and landscaping strips on the sidewalks along the project frontages, including a variety of California native plant species and drought-tolerant species that are low-water use.

The project would result in the removal of 17 trees. The on-site Heritage tree would be retained and protected according to the recommendations included in the arborist reports prepared for the project. The proposed project would replace the removed trees by planting 125 replacement trees throughout the project area. For these reasons, the project would be consistent with General Plan policies related to protecting biological resources. **(Less than Significant Impact)**

Tree Preservation Ordinance

As discussed in Section 3.0, the proposed project would remove two on-site trees and 15 street trees and would plant 125 new trees. The proposed project would implement the following City standard conditions of approval to comply with the City's Tree Preservation Ordinance.

City Standard Conditions of Approval

COA BIO-5.1: The project shall implement the following measures:

- **Replacement:** The applicant shall offset the loss of each tree with 19 replacement trees, for a total of 125 onsite trees. Each replacement tree shall be no smaller than a 24-inch box and shall be noted on the landscape plans submitted for building permit review as Heritage replacement trees.
- **Tree Protection Measures:** The tree protection measures listed in the arborist's report prepared by HMM Engineers dated December 20, 2021 shall be included as notes on the title sheet of all grading and landscape plans. These measures shall include, but may not be limited to, six-foot chain link fencing at the drip line, a continuous maintenance and care program, and protective grading techniques. Also, no materials may be stored within the drip line of any tree on the project site.

With implementation of the above City standard conditions of approval, the proposed project would not conflict with the City's tree preservation ordinance. **(Less than Significant Impact)**

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. **(No Impact)**

The project site is not part of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. The Habitat Plan is a conservation program to promote the recovery of endangered species in portions of Santa Clara County while accommodating planned development, infrastructure and maintenance activities. The City of Mountain View, including the project site, is located outside the Habitat Plan area and outside of the expanded study area for burrowing owl conservation. Therefore, it would not conflict with any approved local, regional, or state habitat conservation plan. **(No Impact)**

4.5 CULTURAL RESOURCES

The discussion in this section is based in part on a Cultural Resources Survey Report prepared by Archaeological/Historical Consultants dated August 22, 2022. A copy of the Cultural Resources Survey Report, which contains confidential information related to archaeological resources, is on file at the City.

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.

The NRHP is the nation's master inventory of historic resources that are considered significant at the national, state, or local level. The minimum criteria for determining NRHP eligibility include:

- The property is at least 50 years old (properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP);
- It retains integrity of location, design, setting, materials, workmanship, feeling, and associations; and
- It possesses at least one of the following characteristics:
 - Association with events that have made a significant contribution to the broad patterns of history;
 - Association with the lives of persons significant in the past;
 - Distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction; or
 - Has yielded, or may yield, information important to prehistory or history.

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.²⁰

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 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.

²⁰ 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>.

Local

Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts to cultural resources. The following policies are applicable to the proposed project.

Policy	Description
Historic Preservation	
LUD 11.1	Historical preservation. Support the preservation and restoration of structures and cultural resources listed in the Mountain View Register of Historic Resources, the California Register of Historic Places or National Register of Historic Places.
LUD 11.5	Archaeological and paleontological site protection. Require all new development to meet state codes regarding the identification and protection of archaeological and paleontological deposits.
LUD 11.6	Human remains. Require all new development to meet state codes regarding the identification and protection of human remains.

City of Mountain View Code of Ordinances

The City's Zoning Ordinance is in Chapter 36, Article 16 of the City Code and consists of land use regulations, based on policies of the General Plan, that have been enacted in order to promote the public health, safety, morals, comfort and general welfare throughout the City of Mountain View.

Division 15, Designation and Preservation of Historic Resources of the City's Zoning Ordinance includes a process for recognizing, preserving, and protecting historical resources. Division 15, Section 36.54.55 establishes the Mountain View Register of Historic Resources as the City's official list of historically significant buildings, structures, and sites that are considered during the development review process. The Mountain View Register has similar criteria for listing as the State of California Register and consists of historic resources that meet one or more of the following criteria (refer to Division 15, Section 36.54.65):

1. Is strongly identified with a person who, or an organization which, significantly contributed to the culture, history or development of the City of Mountain View;
2. Is the site of a significant historic event in the City's past;
3. Embodies distinctive characteristics significant to the City in terms of a type, period, region, or method of construction or representative of the work of a master or possession of high artistic value; and/or
4. Has yielded, or may be likely to yield, information important to the City's prehistory or history.

4.5.1.2 *Existing Conditions*

Historic Resources

The City of Mountain View was historically used as ranch land and agricultural land during the 19th century and into the 20th century. In the early- to mid- 1900s, the City began to develop more industrial and commercial land uses. During this timeframe, the area surrounding the project site was part of the Terra Bella Acres subdivision, which was a rural settlement that contained primarily agricultural uses. The project area was eventually annexed by the City in the 1960s and was subsequently zoned for industrial uses. The project site is currently development with a single-family residence construction in 1953 and 18 single-story storage buildings constructed in 1953. Based on the historic uses on-site and the lack of substantial development prior to the current structures, the project site has a low sensitivity to contain historic era archaeological resources.

To be considered a historic resource, a site must meet certain sets of criteria including relevance to local and regional history, its association with historic figures, and the distinctiveness of its architecture. The 18 single-story storage buildings are less than 50 years old, and therefore, not considered to be eligible historic resources. The single-family residence due to the age, was evaluated against the criteria of the NRHP and CRHR in addition to the criteria established by the City of Mountain View Register of Historic Resources. The evaluation determined that the building is typical of the Minimal Traditional architectural style that was common in the post-World War II period in the San Francisco Bay Area, was not associated with significant historical events or persons, designed by a notable architect, nor does it have the potential to yield information important to prehistory or history of the local area, state, or nation. Based on these characteristics, the evaluation concluded that the site does not contain any resources listed on or eligible for listing on the NRHP, CRHP, or the City of Mountain View Register of Historic Resources because the existing structure does not meet the criteria for historical significance which typically requires the building be constructed with a high level of artistry or be associated with historically significant events or people.

Prehistoric Resources

A records search at the Northwest Information Center of the California Historical Resources Information System (CHRIS) was conducted to identify all recorded archaeological sites on and within one-half mile of the project site. The record search found a single Native American resource within one-half mile of the project site, which was located approximately 0.4-mile east of the site.

The project site is located within a Holocene-age landform with relatively flat valley slopes. Sites with prehistoric resources are typically located in relatively flat areas in proximity to sources of fresh water. The nearest waterway is Stevens Creek, located approximately 0.22-mile east of the project site. Based on these geographic factors, the project site would have a moderate sensitivity to contain buried prehistoric resources.

4.5.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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. **(No Impact)**

The site and adjacent sites do not contain any resources listed on or eligible for listing on the NRHP or the CRHP; nor do they contain any resources listed on the City of Mountain View Register of Historic Resources. As discussed above under Section 4.5.1.2 Existing Conditions, none of the buildings on-site are eligible for listing as historic resources under national, state, or local criteria. Therefore, there would be no impact to historical resources pursuant to CEQA Guidelines Section 15064.5. **(No 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)**

No archaeological resources have been previously identified on or adjacent to the site. As discussed in Section 4.5.1.2 Existing Conditions, the site has a moderate sensitivity for pre-historic archaeological resources and a low sensitivity for historic-era archaeological resources. Unknown archaeological resources could be discovered on-site during excavation. If any archaeological resources or human remains were discovered as a result of construction activities on-site, the project would be required to implement the following City standard conditions of approval.

City Standard Conditions of Approval

COA CUL-2.1: The project shall implement the following measures:

- **Discovery of Archaeological Resources:** If prehistoric, or historic-period cultural materials are unearthed during ground-disturbing activities, all work within 100 feet of the find shall be halted until a qualified archaeologist and Native American representative can assess the significance of the find. Prehistoric materials might include obsidian and chert flaked-stone tools (e.g.,

projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil (“midden”) containing heat-affected rocks and artifacts; stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered-stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and wall, filled wells or privies, and deposits of metal, glass, and/or ceramic refuse. If the find is determined to be potentially significant, the archaeologist, in consultation with the Native American representative, shall develop a treatment plan that could include site avoidance, capping, or data recovery.

- **Discovery of Human Remains:** In the event of the discovery of human remains during construction or demolition, there shall be no further excavation or disturbance of the site within a 50’ radius of the location of such discovery, or any nearby area reasonably suspected to overlie adjacent remains. The Santa Clara County Coroner shall be notified and shall make a determination as to whether the remains are Native American. If the Coroner determines that the remains are not subject to their authority, the Coroner shall notify the Native American Heritage Commission, which shall attempt to identify descendants of the deceased Native American. If no satisfactory agreement can be reached as to the disposition of the remains pursuant to this State law, then the landowner shall reinter the human remains, and items associated with Native American burials on the property in a location not subject to further subsurface disturbance. A final report shall be submitted to the City’s Community Development Director prior to release of a Certificate of Occupancy. This report shall contain a description of the mitigation programs and its results, including a description of the monitoring and testing resources analysis methodology and conclusions, and a description of the disposition/curation of the resources. The report shall verify completion of the mitigation program to the satisfaction of the City’s Community Development Director.

In addition, based on the project site’s moderate sensitivity for pre-historic archaeological resources, the following mitigation measure shall be implemented prior to the beginning of ground-disturbing activities on-site.

Mitigation Measure

MM CUL-2.1: Prior to ground-disturbing activities, a qualified archaeologist shall provide cultural resources training to all contractors and employees involved in trenching and excavation. The training shall inform participants how to recognize archaeological artifacts and deposits and discuss their obligations under the law and the project’s standard conditions of approval.

Compliance with the above City standard conditions of approval COA CUL-2.1 and mitigation measure MM CUL-2.1 would reduce potential impacts to unrecorded archaeologic resources a less than significant level by providing cultural resources training to all contractors and employees involved in trenching and excavation, ensuring that any objects encountered during ground-disturbing activities are appropriately evaluated for cultural significance and protected if significant, and if human remains

are found, by contacting the Santa Clara County Coroner to determine if the remains are Native American. **(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)**

As discussed in Impact CUL-2, the project site has moderate sensitivity for pre-historic resources and ground-disturbing activities during project construction could impact unknown underground resources, including human remains. With implementation of the City standard conditions of approval COA CUL-2.1 discussed under Impact CUL-2, the project would reduce impacts to human remains to a less than significant level by contacting the Santa Clara County Coroner to determine if the remains are Native American. **(Less than Significant Impact)**

4.6 ENERGY

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 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 CO₂ 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.²¹ Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.²²

²¹ California Building Standards Commission. "California Building Standards Code." Accessed December 8, 2021. <https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo>.

²² California Energy Commission (CEC). "2019 Building Energy Efficiency Standards." Accessed December 8, 2021. <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency>.

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.

Additionally, CALGreen requires development projects to divert at least 65 percent of construction debris from landfills.

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.²³

Local

Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts due to energy impacts. The following policies are applicable to the proposed project.

Policy	Description
Land Use and Design	
LUD-10.5	Building energy efficiency. Incorporate energy-efficient design features and materials into new and remodeled buildings.

Greenhouse Gas Reduction Program

The City of Mountain View certified the General Plan Program EIR (SCH #2011012069) and adopted the GGRP in July 2012. The GGRP is a separate but complementary document to the General Plan that implements the long-range GHG emissions reduction goals of the General Plan and serves as a programmatic GHG reduction strategy for CEQA tiering purposes. The GGRP includes goals, policies, performance standards, and implementation measures for achieving GHG emissions reductions, to meet the requirements of AB 32 and the BAAQMD 2030 emissions reductions goals. These measures include strategies such as green building performance and vehicle trip reduction requirements. The program includes a goal to improve communitywide emissions efficiency by 15 to 20 percent over 2005 levels by 2020 and by 30 percent over 2005 levels by 2030.

²³ California Air Resources Board. "The Advanced Clean Cars Program." Accessed December 8, 2021. <https://www.arb.ca.gov/msprog/acc/acc.htm>.

Mountain View Green Building Code and Reach Code

The Mountain View Green Building Code (MVGBC) builds on the state-mandated CALGreen standards to include local green building standards and requirements for private development. The MVGBC does not require formal certification from a third-party organization but requires projects to be designed and constructed to meet the intent of a third-party rating system. For residential projects proposing over five units, the MVGBC requires those buildings meet the intent of 70 GreenPoint Rated points from the Build It Green certification program, as well as compliance with mandatory CALGreen requirements. For non-residential projects proposing buildings between 5,000 and 25,000 square feet, the MVGBC requires those buildings meet the intent of LEED Certified and mandatory CALGreen requirements. For buildings over 25,000 square feet, the MVGBC requires those buildings meet the intent of LEED Silver and mandatory CALGreen requirements.

In 2019, the Mountain View City Council approved amendments to Chapters 8, 14, and 24 of the MVGBC, referred to as the Reach Code amendments. The Reach Code amendments are applicable to any project submitted after December 31, 2019. These Reach Code amendments require new buildings to be all-electric with an exception for commercial spaces with specialized equipment that cannot operate with electric service if approved by the City.

City of Mountain View Construction and Demolition Ordinance

According to the City's Construction and Demolition Ordinance, all development projects involving demolition of greater than 5,000 square feet are required to divert 50 percent of construction demolition debris from landfills. Documentation of this diversion is required prior to scheduling a final building inspection.

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.²⁴ 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 (1,507.7 trillion Btu) for residential uses, 19.6 percent (1,358.3 trillion Btu) for commercial uses, 24.6 percent (1,701.2 trillion Btu) for industrial uses, and 34 percent (2,355.5 trillion Btu) for transportation.²⁵ 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.

²⁴ United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed July 6, 2022. <https://www.eia.gov/state/?sid=CA#tabs-2>.

²⁵ Ibid.

The community-owned Silicon Valley Clean Energy (SVCE) is the electricity provider for the City of Mountain View.²⁶ 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.

Natural Gas

PG&E provides natural gas services within the City of Mountain View. 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.²⁷ In 2020, California used 2,144 trillion Btu of natural gas.²⁸ In 2020, Santa Clara County used less than one percent of the state's total consumption of natural gas.²⁹

Fuel for Motor Vehicles

In 2019, 15.4 billion gallons of gasoline were sold in California.³⁰ 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 2019.³¹ 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.^{32,33}

²⁶ Silicon Valley Clean Energy. "Frequently Asked Questions." Accessed July 6, 2022.
<https://www.svcleanenergy.org/faqs>.

²⁷ California Gas and Electric Utilities. *2021 Supplemental California Gas Report*. Accessed July 6, 2022.
https://www.socalgas.com/sites/default/files/2020-10/2020_California_Gas_Report_Joint_Utility_Biennial_Comprehensive_Filing.pdf.

²⁸ United States Energy Information Administration. "Natural Gas Consumptions Estimates, 2020." Accessed July 6, 2022.
https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_ng.html&sid=US&sid=CA.

²⁹ California Energy Commission. "Natural Gas Consumption by County." Accessed July 6, 2022.
<http://ecdms.energy.ca.gov/gasbycounty.aspx>.

³⁰ California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons." Accessed July 6, 2022.
<https://www.cdtfa.ca.gov/dataportal/dataset.htm?url=VehicleTaxableFuelDist>.

³¹ United States Environmental Protection Agency. "The 2020 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." January 2021.
<https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockkey=P1010U68.pdf>.

³² United States Department of Energy. *Energy Independence & Security Act of 2007*. Accessed July 6, 2022.
<http://www.afdc.energy.gov/laws/eisa>.

³³ Public Law 110-140—December 19, 2007. *Energy Independence & Security Act of 2007*. Accessed July 6, 2022.
<http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf>.

4.6.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<hr/>				
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)			

Construction

Construction of the proposed project would require energy for the manufacture and transportation of building materials, preparation of the project site (e.g., demolition and grading), and the construction of the buildings. Construction processes are generally designed to be efficient in order to avoid excess monetary costs. Additionally, as noted in Section 4.3 Air Quality, the project would implement BAAQMD BMPs as a City standard condition of approval COA AIR-1.1, which restricts equipment idling times and require the applicant to post signs on the project site reminding workers to shut off idle equipment, thus reducing energy waste. The project would also comply with CALGreen to divert a minimum of 65 percent of nonhazardous construction and demolition waste from landfills, thus minimizing energy impacts from the creation of excessive waste. For these reasons, the proposed project would not use fuel or energy in a wasteful manner during construction activities. **(Less than Significant Impact)**

Operation

Occupation and operation of the project would consume energy for multiple purposes, including building heating and cooling, lighting, and appliance use. Operational energy also includes gasoline consumption from vehicles traveling to and from the project site. The net change in energy use from the project as compared to the existing uses is shown below in Table 4.6-1.

Table 4.6-1: Estimated Existing and Project Energy Usage			
	Electricity (GWh)	Natural Gas (MMBtu)	Gasoline (gallons)
A. Proposed Project	2.71	0	113,469
B. Existing Uses	0.32	293	13,750
<i>Project Net Difference (A – B)</i>	<i>+2.39</i>	<i>-293</i>	<i>+99,719</i>
Note: The estimated gasoline demand is based on the estimated annual VMT of 349,252 for existing uses and 2,882,108 for the project, and an average fuel economy of 25.4 mpg. GWh = Gigawatt per hour MMBtu = Metric Million British Thermal Unit			

As shown in Table 4.6-1, the project would result in a net increase in electricity and gasoline demand, and a net decrease in natural gas demand (due to the Reach Code) compared to existing conditions.

The project would be built to CALGreen requirements, Title 24 energy efficiency standards, and MVGBC, all of which would improve the efficiency of the overall project. As required by the MVGBC, the proposed residential building would meet the intent of 70 GreenPoint Rated points and the storage building would meet the intent of LEED Silver requirements and incorporate energy and emissions reduction features, such as:

- Drought tolerant landscaping
- High-efficiency irrigation fixtures
- Water efficient interior plumbing fixtures
- Solar panels on the rooftop of the residential building, and solar panels and solar-ready rooftops for the storage facility buildings
- Omitting natural gas fixtures
- EnergyStar appliances
- Motion activated lighting in the storage facility buildings
- Limited use of heating and cooling in the storage facility buildings
- EV charging stations and EV-ready spaces

Furthermore, the project contains bicycle parking, is serviced by public transit and bicycle facilities that would promote alternative modes of transportation, which would reduce of use gasoline, and would plant 125 trees providing shade. Based on the project's adherence to current building codes and efficiency standards, and the implementation of energy reducing design features, the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy during project operation. **(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)
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The project would obtain electricity from SVCE, which is 100 percent GHG-emission free energy from renewable and hydroelectric sources, consistent with the state’s Renewables Portfolio Standard program and SB 350. In addition, the project would be designed per building standards that meet or exceed state mandated Title 24 energy efficiency standards, CALGreen standards, and MVGBC standards; especially with the inclusion of on-site solar generation on the residential and storage facility buildings. The project would be consistent with General Plan Policy LUD-10.5 by incorporating the energy-efficient design features discussed under Impact EN-1. In addition, as further discussed in Section 4.8 Greenhouse Gas Emissions, the project would be consistent with the 2030 GGRP by implementing measures such as a TDM Plan for the residential building (see Appendix K for details), installing energy efficient appliances, and planting shade trees throughout the project area. For these reasons, the proposed project would not obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

4.7 GEOLOGY AND SOILS

The following discussion is based on a Geotechnical Engineering Exploration and Analysis prepared by Giles Engineering Associates, Inc. dated September 17, 2021. A copy of this report is included in Appendix D of this Initial Study.

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.

Local

Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts due to geology and soils impacts. The following policies are applicable to the proposed project.

Policy	Description
Public Safety	
PSA 4.2	Natural disasters. Minimize impacts of natural disasters.
PSA 5.1	New development. Ensure new development addresses seismically induced geologic hazards.
PSA 5.2	Alquist-Priolo zones. Development shall comply with the Alquist-Priolo Earthquake Fault Zoning Act.
PSA 5.4	Utility design. Ensure new underground facilities, particularly water and natural gas lines, are designed to meet current seismic standards.
Infrastructure and Conservation	
INC 2.3	Emergency-prepared infrastructure design. Require the use of available technologies and earthquake-resistant materials in the design and construction of all infrastructure projects, whether constructed by the City or others.

City of Mountain View Code of Ordinances

The City of Mountain View has adopted the California Building Code (CBC), with amendments, as the reference building code for all projects in the City under Chapter 8 of the City Code. The City of Mountain View's Building Inspection Department, which is part of the Community Development Department, is responsible for reviewing plans, issuing building permits, and conducting field inspections. Geotechnical investigation reports, as required by the CBC, would be reviewed by the City of Mountain View's Building Inspection Division prior to issuance of building permits to ensure compliance. Based on the CBC, Mountain View requires geotechnical reports as conditions of approval for projects in the City.

4.7.1.2 *Existing Conditions*

Regional Geology

The project site is located in the Santa Clara Valley, an alluvial basin bounded by the Santa Cruz Mountains to the west, the Diablo Range to the east, and the San Francisco Bay to the north. The Valley was formed when sediments derived from both mountain ranges were exposed by tectonic uplift and regression of the inland sea which previously inundated the area. The Upper Quaternary sediments that comprise most of this basin consist of up to 1,000 feet of poorly sorted gravel, sand, and clay which were deposited in alluvial fan and deltaic depositional environments.

On-Site Geology

Soils

The mapped soil profiles for the site indicate most of the project site is underlain by silty clay, and a portion of the eastern side of the project site is underlain by alluvial sand, fine-grained silt, and clay. Near-surface soil sampling conducted on-site showed fill and possible fill soils at depths ranging from six to 10 feet below the surface. The fill was comprised of medium stiff to very stiff silty clay. Below the fill, native soils were identified that were comprised of soft to stiff silty clay, clayey silt, and loose to dense silty clayey sands and gravels. Expansive soils shrink and swell as a result of moisture changes. These changes can cause heaving and cracking of slabs-on-grade, pavements, and structures founded on shallow foundations. The soils collected in one of the borings collected on-site had plasticity index scores ranging from seven to 39, indicating a low to high expansion potential that varies depending on the depth of the soil.

Site Topography

The project site is relatively flat with some areas graded slightly for draining and, as a result, the risk of erosion or landslide is low. There are no hillsides or steep embankments on-site and the elevation throughout the site ranges from 32 to 36 feet above mean sea level. No unique geologic features, such as serpentine rock outcrops and boulders, pinnacles, or sandstone are located on-site.

Groundwater

The City of Mountain View overlies the Santa Clara Subbasin (DWR Basin 2-9.02), a groundwater subbasin that is 297 square miles in area. Approximately three percent of Mountain View's drinking water comes from local groundwater supply, while the rest is supplemented by water purchases from the Santa Clara Valley Water District (Valley Water) and the SFPUC. Valley Water conducts an artificial groundwater recharge program that involves releasing locally conserved or imported water to in-stream and off-stream facilities to augment groundwater supplies in the Santa Clara groundwater basin.

Soil borings were performed at depths ranging from 32 feet to 36 feet below ground surface throughout the project site by Giles Engineering Associates, Inc. Based on the subsurface investigations, groundwater levels under the project site have been measured between seven to eight feet below ground surface which is indicative of a relatively high water table in the area (refer to Appendix D for more

specific details on the subsurface investigations completed).³⁴ Water levels on-site may vary depending on seasonal precipitation, irrigation practices, and other climate conditions.

Seismic and Seismic-Related Hazards

Earthquake Faults

As the San Francisco Bay Area contains numerous active and potentially active faults, there is a high potential for seismic events such as fault surface ruptures and ground shaking, which can cause ground failure (landslides), settlement, erosion, liquefaction, lateral spreading, and soil expansion. Faults in the region are capable of generating earthquakes of magnitude 6.7 or higher. During a major earthquake on a segment of one of the nearby faults, strong to severe ground shaking is expected to occur at the project site. The ground shaking intensity felt at the project site would depend on the size of the earthquake (magnitude), the distance from the site to the fault source, the directivity (focusing of earthquake energy along the fault in the direction of the rupture), and the site-specific soil conditions. While no faults cross the project site, there are several major faults nearby including the San Andreas Fault, approximately eight miles to the west; the Calaveras Fault, approximately 14 miles to the east; and the Hayward Fault, approximately 10 miles to the northeast. The project site is not located within a designated Alquist-Priolo Earthquake Fault Zone or a Santa Clara County Fault Hazard Zone.^{35, 36}

Liquefaction

Soil liquefaction can be defined as a complete loss of strength that causes otherwise solid soil to take on the characteristics of a liquid. The types of soil most susceptible to this hazard are loose, saturated, uniformly graded, fine-grain sands that comprise the soil layer within approximately 45 to 50 feet of the ground surface. Liquefaction mostly frequently occurs under vibratory conditions, such as those created by seismic events. The project site is located within a State of California liquefaction hazard zone as well as a County Liquefaction Hazard Zone.³⁷

As discussed previously groundwater was encountered on-site at approximate depths of seven to eight feet below ground surface (bgs). The geotechnical investigation concluded that the soils at depths ranging from 20 to 30 feet bgs are potentially liquefiable based on their plasticity index scores; however, those layers of soil are between thick layers of non-liquefiable soils. Based on this, the potential for surface manifestations resulting from soil liquefaction at the project site is very low.

Lateral spreading typically occurs as a form of horizontal displacement of relatively flat-lying soil toward an open or “free” face such as an open body of water, channel, or excavation. This movement is often associated with liquefaction and commonly occurs on gentle slopes in seismically active regions. Lateral spread presents a significant hazard to the integrity of buildings and other structures. There are no adjacent bodies of water, channels, or excavations in the vicinity of the site; therefore, there is a very low potential for lateral spreading on-site.

³⁴ Giles Engineering Associates, Inc. “Geotechnical Engineering Exploration and Analysis.” September 17, 2021.

³⁵ CA Department of Conservation. *California Earthquake Hazards Zone*. Webmap. Accessed June 29, 2022.
<https://maps.conservation.ca.gov/cgs/EQZApp/app/>.

³⁶ Santa Clara County. *Geologic Hazards Zones. Maps 2 and 10*. Map. October 2012.

³⁷ California Geological Survey. *Earthquake Zones of Required Investigation*. Map. Accessed June 29, 2022.
<https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/>

Other Geologic Hazards

The project site is not located within a Santa Clara County Geologic Hazard Zone for compressible soil, landslides, or fault rupture.³⁸

Paleontological Resources

As discussed in Section 4.5 Cultural Resources, the project site is located within a Holocene-age landform. Geologic units of Holocene age are generally not considered sensitive for paleontological resources, because biological remains younger than 10,000 years are not usually considered fossils. These sediments have low potential to yield fossil resources or to contain significant nonrenewable paleontological resources.³⁹ These recent sediments, however, may overlie older Pleistocene sediments with high potential to contain paleontological resources. Pleistocene sediments, often found at depths of greater than 10 feet below the ground surface, have yielded the fossil remains of plants and extinct terrestrial vertebrates.

There have been no recorded fossils discovered within the City of Mountain View; however, two fossils have been discovered within two miles of the City's sphere of influence.⁴⁰

4.7.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
– Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

³⁸ Ibid.

³⁹ United States Department of the Interior. *Potential Fossil Yield Classification System*. July 2016. Accessed November 24, 2021. https://www.blm.gov/sites/blm.gov/files/uploads/IM2016-124_att1.pdf

⁴⁰ City of Mountain View. *Draft 2030 General Plan and Greenhouse Gas Reduction Program Environmental Impact Report*. SCH #2011012069. September 2012. Page 470.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Be located on expansive soil, as defined in the current California Building Code, creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)**

Fault Rupture

The project site is not located in an Alquist-Priolo Earthquake Fault Zone and no known faults cross the site. While existing faults that are currently considered active are located within 15 miles of the site (i.e., the Hayward, San Andreas, and Calaveras faults), the proposed project is located outside of their fault rupture zones. For these reasons, the project would not directly or indirectly cause potential substantial adverse effects from rupture of a known earthquake fault. **(No Impact)**

Seismic Ground Shaking

There are several major fault lines within approximately 14 miles of the project site that have the potential to produce a major earthquake during the lifespan of this project. During a major earthquake, this site is expected to experience very strong to severe ground shaking. The level of intensity of this ground shaking at the project site would depend on a variety of factors such as the magnitude, distance from the site to the fault source, and the site-specific soil conditions. The ground shaking could potentially damage structures and threaten the safety of occupants in the proposed development.

City Standard Condition of Approval

COA GEO-1.1: Geotechnical Report: The applicant shall have a design-level geotechnical investigation prepared which includes recommendations to address and mitigate geologic hazards in accordance with the specifications of California Geological Survey (CGS) Special Publication 117, Guidelines for Evaluating and Mitigating Seismic Hazards, and the requirements of the Seismic Hazards Mapping Act. The report shall be submitted to the City during building plan check, and the recommendations made in the geotechnical report shall be implemented as part of the project and included in building permit drawings and civil drawings as needed. Recommendations may include considerations for design of permanent below-grade walls to resist static lateral earth pressures, lateral pressures caused by seismic activity, and traffic loads; method for backdraining walls to prevent the build-up of hydrostatic pressure; considerations for design of excavation shoring system; excavation monitoring; and seismic design.

The project would be required to adhere to the current CBC and recommendations in the site-specific geotechnical report prepared for the project, as described in the above City standard condition of approval COA GEO-1.1, to reduce seismic and seismic-related hazards (including ground shaking, liquefaction, and expansive soils) to a less than significant level by requiring the project be properly designed, engineered, and constructed. As such, the existing seismic hazards on the project would not be exacerbated by the project that it would impact (or worsen) off-site conditions. **(Less than Significant Impact)**

Liquefaction and Lateral Spreading

As discussed previously in Section 4.7.1.2, the project site is located within a State and County designated liquefaction hazard zone. The geotechnical investigation conducted on-site discovered groundwater at a depth of approximately seven to eight feet bgs and layers of potentially liquefiable soil approximately 20 to 30 feet bgs that are between thick layers of non-liquefiable soil.

Due to this soil profile, the geotechnical analysis performed on-site determined that the likelihood of surface manifestations such as sand boils or a loss of load bearing potential is very low. The most likely liquefaction impact that a large seismic event would cause on-site is liquefaction induced settlement. In the event of a large seismic event, there is the potential that the ground surface could settle up to one inch. The potential for liquefaction induced settlement would decrease significantly with the implementation of the recommended ground improvements identified in the geotechnical analysis required under City standard condition of approval COA GEO-1.1. Adherence to the current CBC and the recommendations in the site-specific geotechnical report would reduce the risk of liquefaction at the project site to a less than significant level.

There are no adjacent bodies of water, channels, or excavations in the vicinity of the site that would increase the potential for lateral spreading, therefore, the project would not exacerbate such conditions off-site. For these reasons, the project would not cause potential substantial adverse effects related to liquefaction and lateral spreading. **(Less than Significant Impact)**

Landslides

As discussed under Section 4.7.1.2, the project site is not located in a designated landslide hazard zone. The project site is relatively flat and is not located in the vicinity of steep embankments that could increase the risk of landslides affecting the site. Construction of the project would not include substantial earthwork that would create unstable slopes that would exacerbate any existing landslide risks. **(No Impact)**

Impact GEO-2:	The project would not result in substantial soil erosion or the loss of topsoil. (Less than Significant Impact)
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Ground disturbance related to the demolition of the existing buildings and improvements on-site and excavation and construction of the proposed buildings would occur on-site. Transportation of construction materials and equipment to and from the project site could also result in disturbance of the soils. These activities would increase exposure of soil to wind and water erosion and increase sedimentation.

As discussed in Section 4.10 Hydrology and Water Quality, the project would be required to obtain coverage under the State of California Construction General Permit prior to issuance of a demolition permit or a grading permit from the city. This would require preparation of a Stormwater Pollution Prevention Plan (SWPPP), which would outline the erosion control and site stabilization BMPs to be implemented on-site. By implementing these best management practices and the recommendations of the site-specific geotechnical report, erosion and sedimentation impacts would be less than significant. **(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)
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As discussed under Impact GEO-1, adherence to the current CBC and recommendations in the site-specific geotechnical report (as required by City standard condition of approval COA GEO-1.1) regarding ground improvements and construction methods would reduce the risk of liquefaction at the project site to a less than significant level.

Valley Water actively monitors for land subsidence through surveying, groundwater elevation monitoring, and data from compaction wells. Valley Water reduces the potential for land subsidence throughout the Santa Clara Valley by recharging groundwater basins with local and imported surface water. The project would be connected to the City's water system and would not require permanent groundwater extraction wells on-site. As noted in Section 4.10 Hydrology and Water Quality, the project would require temporary groundwater dewatering during construction due to the presence of groundwater seven to eight feet bgs and the maximum excavation depth of eight feet. The City standard condition of approval COA GEO-1.1 includes evaluation and implementation of measures to minimize dewatering during construction, which would prevent subsidence from the temporary construction dewatering. For this reason, the project is expected to have a less than significant impact on subsidence.

As discussed under Section 4.7.1.2 and Impact GEO-1, the project site is not subject to landslide, lateral spreading, or other forms of ground failure. **(Less than Significant Impact)**

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

Expansive soils possess a “shrink-swell” characteristic. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may result over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. The site-specific geotechnical analysis completed for the project site found that the soil within the top 15 feet bgs has a low degree of expansive potential and the soil between 20 to 30 feet bgs has a high degree of expansive potential. Although expansive soils can be a hazard, it is mitigated through adherence with the standard engineering and building practices and techniques specified in the CBC and adherence to the recommendations in the site-specific geotechnical report.

As required by City standard condition of approval COA GEO-1.1, the project shall implement all structural recommendations provided in the design-level geotechnical investigation report. With adherence to these recommendations and the current CBC, the project would not create substantial direct or indirect risks to life or property due to expansive soils. **(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 project would connect to the City’s existing sanitary sewer system. Therefore, the project would not need to support septic tanks or alternative wastewater disposal systems on-site. **(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)**

No paleontological resources have been identified in the City of Mountain View; however, construction and excavation could result in the disturbance of unknown resources. The project would implement the following City standard condition of approval to reduce impacts to unknown paleontological resources.

City Standard Condition of Approval

COA GEO-6.1: Discovery Of Paleontological Resources: In the event a fossil is discovered during construction of the project, excavations within 50 feet of the find shall be temporarily halted or delayed until the discovery is examined by a qualified paleontologist, in accordance with Society of Vertebrate Paleontology standards. The City shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. If the find is determined to be

significant and if avoidance is not feasible, the paleontologist shall design and carry out a data recovery plan consistent with the Society of Vertebrate Paleontology standards.

With implementation of the above standard condition, the proposed would result in less than significant impacts to paleontological resources by halting work if a fossil is discovered, examining the significance of the fossil, and avoiding the resource or implement a data recovery plan if avoidance is not feasible. **(Less than Significant Impact)**

4.8 GREENHOUSE GAS EMISSIONS

The following discussion is based, in part, on an Air Quality & Greenhouse Gas Assessment prepared by Illingworth & Rodkin, In. dated November 15, 2022. This report is attached as Appendix A to this Initial Study.

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 CO₂ equivalents (CO₂e). The most common GHGs are carbon dioxide (CO₂) and water vapor but there are also several others, most importantly methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO₂ and N₂O are byproducts of fossil fuel combustion
- N₂O is associated with agricultural operations such as fertilization of crops
- CH₄ 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 SF₆ 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 EO 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 CO₂e (MMTCo₂e). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 MMTCo₂e.

Senate Bill 375

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

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

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.⁴¹ Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.⁴²

⁴¹ California Building Standards Commission. "California Building Standards Code." Accessed December 8, 2021. <https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo>.

⁴² California Energy Commission (CEC). "2019 Building Energy Efficiency Standards." Accessed December 8, 2021. <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency>.

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.

Additionally, development projects subject to CALGreen requirements are required to divert at least 65 percent of construction debris from landfills.

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 Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts due to greenhouse gas emissions impacts. The following goals and policies are applicable to the proposed project.

Policy	Description
INC-5.2	Citywide water conservation. Reduce water waste and implement water conservation and efficiency measures throughout the city.
INC-5.5	Landscape efficiency. Promote water-efficient landscaping including drought-tolerant and native plants, along with efficient landscape irrigation techniques.
LUD-3.1	Land use and transportation. Focus higher land use intensities and densities within half-mile of public transit service, and along major commute corridors.

2030 Greenhouse Gas Reduction Program

The City of Mountain View certified the General Plan Program EIR (SCH #2011012069) and adopted the GGRP in July 2012. The GGRP is a separate but complementary document to the General Plan that implements the long-range GHG emissions reduction goals of the General Plan and serves as a programmatic GHG reduction strategy for CEQA tiering purposes. The GGRP includes goals, policies, performance standards, and implementation measures for achieving GHG emissions reductions, to

meet the requirements of AB 32 and the BAAQMD 2030 emissions reductions goals. These measures include strategies such as green building performance and vehicle trip reduction requirements. The program includes a goal to improve communitywide emissions efficiency by 15 to 20 percent over 2005 levels by 2020 and by 30 percent over 2005 levels by 2030.

Climate Protection Roadmap

The City's Climate Protection Roadmap (CPR), completed in 2015, presents a projection of GHG emissions through 2050 and several strategies that would help the City reduce absolute communitywide GHG emissions to 80 percent below 2005 levels by 2050.

Mountain View Green Building Code and Reach Code

The MVGBC builds on the state-mandated CALGreen standards to include local green building standards and requirements for private development. The MVGBC does not require formal certification from a third-party organization but requires projects to be designed and constructed to meet the intent of a third-party rating system. For residential projects proposing over five units, the MVGBC requires those buildings meet the intent of 70 GreenPoint Rated points from the Build it Green certification program, as well as compliance with mandatory CALGreen requirements. For non-residential projects proposing buildings between 5,000 and 25,000 square feet, the MVGBC requires those buildings meet the intent of LEED Certified and mandatory CALGreen requirements. For buildings over 25,000 square feet, the MVGBC requires those buildings meet the intent of LEED Silver and mandatory CALGreen requirements.

In 2019, the Mountain View City Council approved amendments to Chapters 8, 14, and 24 of the MVGBC, referred to as Reach Code amendments. The Reach Code amendments are applicable to any project submitted after December 31, 2019. These Reach Code amendments require new buildings to be all-electric with an exception for commercial spaces with specialized equipment that cannot operate with electric service if approved by the City.

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.

The existing uses on-site generate GHG emissions as a result of energy (electricity and natural gas) consumption, vehicle trips to and from the site, solid waste generation, and water usage.

4.8.2

Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Generate greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the determinations. As described in Section 4.8.1.2, BAAQMD adopted GHG 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. On April 20, 2022, BAAQMD adopted new thresholds of significance for operational GHG emissions from new land use projects. BAAQMD has identified the following thresholds:

- A. Projects must include, at a minimum, the following project design elements:
 - a. Buildings
 - i. The project will not include natural gas appliances or natural gas plumbing (in both residential and non-residential development).
 - ii. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
 - b. Transportation
 - i. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
 1. Residential Projects: 15 percent (16.8 percent in Petaluma) below the existing VMT per capita
 2. Office Projects: 15 percent below the existing VMT per employee
 3. Retail Projects: no net increase in existing VMT
 - ii. Achieve compliance with off-street electric vehicle requirements in the most recently adopted version of CALGreen Tier 2.
- B. Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

Any new land use project would have to include either section A or B from the above list, not both, to have a less than significant GHG impact. Since the project proposes a General Plan amendment, it is

not consistent with the land use assumptions covered in the 2030 GGRP, therefore, Threshold B is not applicable, and Threshold A is used to evaluate the project's GHG impacts.

Impact GHG-1:	The project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. (Less than Significant Impact with Mitigation Incorporated)
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Construction

Construction of the project would generate GHG 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. There is nothing atypical or unusual about the project's construction. In addition, the project would implement City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1 to restrict idling of construction equipment and utilize energy-efficient equipment, which would in turn reduce GHG emissions. For these reasons, the project's construction GHG emissions are less than significant. **(Less than Significant Impact with Mitigation Incorporated)**

Operation

The project would intensify development on-site, therefore, it would generate new GHG emissions from energy-related emissions, mobile emissions from vehicles traveling to and from the site, and emissions from solid waste generation and water usage. Promoting dense development in urban infill locations and energy efficiency is key to reducing GHG emissions. For this reason, a project is determined to have a less than significant GHG emissions impact if it can meet all the qualifications of either Threshold A (or B) described above. The project meets all the qualifications under Threshold A for the following reasons:

- The project would comply with the City's Reach Code, which prohibits natural gas infrastructure in new buildings, and requires new buildings to be 100-percent electric. The project does not include natural gas infrastructure to the proposed buildings.
- The project would be required to meet current CALGreen mandatory green building standards and MVBBC standards. MVBBC requires higher standards than the CALGreen minimum requirement. As discussed under Impact EN-1, the project would not result in a wasteful, inefficient, or unnecessary consumption of energy during project operation. The storage buildings would be required to meet the intent of LEED Silver requirements since the buildings combined would be over 25,000 square feet, and the residential building would be required to meet the intent of 70 GreenPoint Rated points from the Build it Green certification program since it proposes more than five units. Furthermore, the project has access to public transit and bicycle facilities and proposes to plant 125 trees (increase of 121 trees compared to existing conditions) that would provide shade.
- The project would meet the locally adopted SB 743 VMT target. As discussed in Section 4.17 Transportation, the City's VMT policy includes screening criteria for projects which are presumed to have a less than significant transportation impact. The proposed storage buildings and residential building meet the less-than-significant screening criteria for a local-serving retail and affordable housing project.

- The project would comply with the current CALGreen Tier 2 and City’s Green Building Code EV requirements for off-street electric vehicle.⁴³ The residential building would include 16 electric vehicle charging stations (15 percent of total parking spaces) and the remaining 89 spaces (85 percent of total parking spaces) would be pre-wired to be converted into electric vehicle charging stations in the future (EV-ready). The storage buildings would be required to have 13 EV-ready spaces.

For these reasons, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less than Significant Impact)**

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 with Mitigation Incorporated)**

Plan Bay Area

The project site is not located within a PDA. However, it would not impede implementation of Plan Bay Area 2050 because the proposed storage facility would provide local commercial services and the proposed residential building would comply with CALGreen and MVGBC and place housing with bicycle parking in an urbanized area serviced by public transit and bicycle facilities that would promote alternative modes of transportation. Additionally, the project would receive its energy from SVCE, who provides electricity generated from carbon free sources. **(Less than Significant Impact)**

2017 Clean Air Plan

The BAAQMD 2017 CAP focuses on two goals: protecting public health and protecting the climate. The 2017 CAP includes air quality standards and control measures designed to reduce emissions of methane, carbon dioxide, and other super-GHGs. As discussed in Section 4.3 Air Quality under Impact AIR-1, the project is consistent with the 2017 Clean Air Plan because the project would not exceed BAAQMD criteria air pollutant emissions thresholds during construction with implementation of BAAQMD BMPs (City standard condition of approval COA AIR-1.1) and during operation. In addition, the project construction would implement mitigation measure MM AQ-3.1 by using energy-efficient alternative fueled construction equipment to reduce air pollutant (DPM and PM_{2.5}) emissions. In addition, the project would implement City standard condition of approval COA AIR-3.1 to reduce community health risks from building interior finishes containing formaldehyde. For these reasons, the proposed project would not conflict with the 2017 CAP goal to reduce GHG emissions. **(Less than Significant Impact with Mitigation Incorporated)**

General Plan

The proposed project would be consistent with General Plan policies INC-5.2, INC-5.5, and LUD-3.1 by complying with Title 24 and CALGreen, and the City’s Green Building Code and Reach Code by installing drought tolerant landscaping with high-efficiency irrigation and water efficient interior

⁴³ Current CALGreen Tier 2 requires 20 percent of residential parking spaces to be EV-ready. The City’s Green Building Code requires every space without a physical electric vehicle charger to be EV-ready. Current CALGreen Tier 2 and City’s Green Building Code both require non-residential development with 51 to 75 total parking spaces to provide 13 EV-ready spaces.

fixtures, and intensifying development on an infill within a quarter mile from bus stops (along Shoreline Boulevard) served by existing public transit service and in proximity to major commute corridors (U.S. 101, SR 85, Shoreline Boulevard, and Middlefield Road). **(Less than Significant Impact)**

Greenhouse Gas Reduction Plan

The GGRP identifies a series of GHG emissions reduction measures to be implemented by development projects that would help the City achieve its GHG reduction goals. While the proposed land use and development intensity on-site was not covered in the GHGRS, the project would comply with the applicable GGRP mandatory measures and would not be in conflict with the City's GHG reduction goals, as discussed in Table 4.8-1 below. Furthermore, as discussed under Impact GHG-1, the project would result in a less than significant GHG emissions impact. For these reasons, the project would not be in conflict with the GGRP. **(Less than Significant Impact)**

Table 4.8-1: Greenhouse Gas Reduction Plan Consistency	
Mandatory Measure	Consistency
Measure E-1.3: Non-Residential Lighting Retrofit	The project would demolish and replace the existing storage facility buildings with two new buildings that would be constructed to meet Title 24, CALGreen, and the City's Green Building Code requirements.
Measure E-1.6: Exceed State Energy Standards in New Residential Development	The proposed residential building would be constructed to meet the City's Green Building Code requirements.
Measure E-1.7: Exceed State Energy Standards in New Non-Residential Development	The proposed storage facility buildings would be constructed to meet the City's Green Building Code requirements, which exceed state standards.
Measure E-1.8: Building Shade Trees in Residential Development	The project residential building would include landscaping trees on-site and along the sidewalks along the project frontages.
Measure T-1.1: Transportation Demand Management	As discussed in Section 4.17, the project would have a less than significant VMT impact. Nevertheless, the proposed residential building would implement a TDM plan (see Appendix K for details) to comply with this measure.

4.9 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based on the following reports: Phase I Environmental Site Assessment (ESA) and Limited Phase II Subsurface Investigation for the 1020 Terra Bella site completed by Terraphase Engineering Inc. dated June 16, 2017, Soil Vapor Survey for the 1020 Terra Bella site completed by Essel Environmental dated June 6, 2022, Phase I ESA for the 1040 Terra Bella site completed by CRESurveys LTD dated November 2, 2019, Cornerstone Earth Group peer review of these reports, and a Phase II Soil Vapor Evaluation for the 1040 Terra Bella site completed by Cornerstone Earth Group dated October 24, 2022. Copies of the reports are included in Appendices E, F, G, H, and I of this Initial Study.

4.9.1 Environmental Setting

4.9.1.1 *Regulatory Framework*

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, 1986.⁴⁴

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 program.⁴⁵

⁴⁴ United States Environmental Protection Agency. "Superfund: CERCLA Overview." Accessed May 11, 2020. <https://www.epa.gov/superfund/superfund-cercla-overview>.

⁴⁵ 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).⁴⁶

Toxic Substances Control Act

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

California Accidental Release Prevention Program

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

Asbestos-Containing Materials

Friable asbestos is any asbestos-containing material (ACM) that, when dry, can easily be crumbled or pulverized to a powder by hand, allowing the asbestos particles to become airborne. Common examples of products that have been found to contain friable asbestos include acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters and pipes. Common examples of non-friable ACMs are asphalt roofing shingles, vinyl floor tiles, and transite siding made with cement. The EPA began phasing out use of friable asbestos products in 1973 and issued a ban in 1978 on manufacture, import, processing, and distribution of some asbestos-containing products and new uses of asbestos products.⁴⁷ The EPA is currently considering a proposed ban on on-going use of asbestos.⁴⁸ 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.

⁴⁶ California Environmental Protection Agency. "Cortese List Data Resources." Accessed May 28, 2020. <https://calepa.ca.gov/sitecleanup/corteselist/>.

⁴⁷ United States Environmental Protection Agency. "EPA Actions to Protect the Public from Exposure to Asbestos." Accessed April 19, 2022. <https://www.epa.gov/asbestos/epa-actions-protect-public-exposure-asbestos>

⁴⁸Ibid.

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

Moffett Federal Airfield Comprehensive Land Use Plan

The project site is approximately 1.2 miles southwest of the Moffett Federal Airfield, which is the closest airport to the site. The Moffett Federal Airfield Comprehensive Land Use Plan (CLUP), adopted by the Santa Clara County Airport Land Use Commission, is intended to safeguard the general welfare of the inhabitants within the vicinity of the airport, as well as aircraft occupants.⁴⁹ The CLUP is also intended to ensure that surrounding new land uses do not affect airfield operations. The CLUP identifies the Airfield's Airport Influence Area (AIA). The AIA is a composite of areas surrounding the Airfield that are affected by noise, height, and safety considerations. Within the AIA, the CLUP establishes a (1) noise restriction area, (2) height restriction area, and (3) safety restriction area.

Santa Clara County Operational Area Hazard Mitigation Plan

The City's Hazard Mitigation Plan, an annex to Santa Clara County's Operational Area Hazard Mitigation Plan (2017), performs a full risk assessment on the nine hazards that present the greatest concern in Santa Clara County. The nine hazards focused on for this mitigation plan are climate change/sea-level rise, dam and levee failure, drought, earthquakes, floods, landslides, severe weather, tsunamis, and wildfires.

The City's annex, Chapter 11 of the document, provides a detailed overview of the City's response capabilities, the organizational structure of local authorities, risk rating scores that determine which hazards present the greatest risk to Mountain View, and a priority schedule for mitigation measures planned by local and regional agencies.

Municipal Regional Permit Provision C.12.f

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 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

⁴⁹ Santa Clara County Airport Land Use Commission. *Moffett Federal Airfield Comprehensive Land Use Plan*. November 2, 2016.

Quality Control Board (RWQCB) 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.⁵⁰ 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

Certified Unified Program Agency

The routine management of hazardous materials in California is administered under the Unified Program. The CalEPA has granted responsibilities to the Santa Clara County Hazardous Materials Compliance Division (HMCD) for implementation and enforcement of hazardous material regulations under the Unified Program as a CUPA. Through a formal agreement with the HMCD, the Mountain View Fire Department (MVFD) implements hazardous materials programs for the City of Mountain View as a Participating Agency within the Unified Program. The MVFD coordinates with the HMCD to implement the Santa Clara County Hazardous Materials Management Plan and to ensure that commercial and residential activities involving classified hazardous substances are properly handled, contained, and disposed.

City of Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts regarding hazards and hazardous materials. The following policies are applicable to the proposed project.

Policy	Description
PSA 3.2	Protection from hazardous materials. Prevent injuries and environmental contamination due to the uncontrolled release of hazardous materials through prevention and enforcement of fire and life safety codes.
PSA 3.3	Development review. Carry out development review procedures that encourage effective identification and remediation of contamination and protection of public and environmental health and safety.
INC 18.1	Contamination prevention. Protect human and environmental health from environmental contamination.

4.9.1.2 *Existing Conditions*

Site History

The project site has historically been used as agricultural land. In the early 1960s, a single-family residence (which has since been converted into commercial office space), a detached garage, and a shed were constructed on the 1020 Terra Bella Avenue parcel. The existing storage facility on the 1040 Terra Bella Avenue parcel was constructed by 1974.

⁵⁰ California Regional Water Quality Control Board. *San Francisco Bay Region Municipal Regional Stormwater NPDES Permit*. November 2015.

On-Site Contamination

The project site is developed with a dilapidated, uninhabitable, single-story residence with associated storage structures, storage facility buildings, and paved areas for parking. The residence was built in the early 1960s and the storage facility buildings were constructed by 1974. Based on the age of these buildings, it is possible that ACMs, lead-based paint, and PCBs are present. Prior to these structures, the project site was used as for agricultural purposes. There is potential for residual agricultural chemicals in the soil (i.e., pesticides and fertilizers). The soil, groundwater, and soil vapor investigations completed on the 1020 Terra Bella Avenue parcel detected elevated levels (exceeding residential ESLs) of petroleum hydrocarbons in the groundwater samples and benzene, ethylbenzene, xylenes, 1,3-butadiene, chloroform, ethylene dibromide, and vinyl chloride in the soil vapor samples. The soil vapor investigation completed on the 1040 Terra Bella Avenue parcel detected elevated levels (exceeding commercial ESLs) of cis-1,2-dichloroethene, trichloroethene, and vinyl chloride in the soil vapor samples where Building 2 of the storage facility is proposed. There is also a potential presence of septic tanks underground on-site. The project site is not on the Cortese List⁵¹ and there are no recorded hazardous materials releases on the project site.

Off-Site Sources of Contamination

Land uses surrounding the project site include office, public/quasi-public (i.e., church), and industrial uses. The closest hazardous material sites are closed leaking underground storage tank (LUST) cases. The nearest case is (Jasco Chemical Company) adjacent to the southwestern corner of the project site and it was closed as of October 1997. However, there are documented releases of petroleum hydrocarbon and chlorinated solvent up-gradient and cross-gradient to the project site.

Airport Safety

The project site is approximately 1.2 miles southwest of the Moffett Federal Airfield and it is located within of the airfield's AIA. The site is not located within the airfield's 65 dBA noise contour area or airport safety zones.⁵² FAR Part 77 requires the 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 ground. The project site is located within the mapped Part 77 182-foot above mean sea level (amsl) horizontal surface. Elevations on-site range from 32 to 36 feet amsl; therefore, any structure exceeding 146 feet in height above grade would require submittal to the FAA for airspace safety review.

⁵¹ California Environmental Protection Agency. "Cortese List Data Resources." Accessed November 14, 2020. <https://calepa.ca.gov/sitecleanup/corteselist>.

⁵² Santa Clara County Airport Land Use Commission. *Moffett Federal Airfield Comprehensive Land Use Plan*. November 18, 2016.

Wildland Fire Hazards

According to the California Department of Forestry and Fire Protection (CAL FIRE), the project site is not located in a very high, high, or moderate fire hazard zone.⁵³ The site is also not within a Wildland Urban Interface (WUI).⁵⁴

4.9.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

⁵³ California Department of Forestry and Fire Protection. "FHSZ Viewer." Webmap. Accessed June 17, 2022. <https://egis.fire.ca.gov/FHSZ/>.

⁵⁴ California Department of Forestry and Fire Protection. *Wildland Urban Interface (WUI)*. December 2019. Accessed June 17, 2022. https://frap.fire.ca.gov/media/10300/wui_19_ada.pdf.

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 proposed development would include a multi-family residential development and a storage facility. Unlike an industrial or manufacturing use that would routinely transport, use, or dispose large quantities of hazardous materials subject to regulatory oversight, these land uses would routinely use only limited amounts of fuels and oils for landscaping and maintenance activities, in addition to cleaning materials. The quantities used 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)**

Impact HAZ-2: The project would not 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)**

On-Site Soils and Groundwater

The project site soil could be contaminated with agricultural chemicals due to its historical use as agricultural land and lead due to the age of the building on-site. Furthermore, as discussed above, there are elevated levels of contaminants found in the groundwater and soil vapor samples previously collected on-site and known groundwater contamination west and south of the project site. The project would excavate soils to a maximum depth of eight feet, which would require off haul of potentially contaminated soils and dewatering of potentially contaminated groundwater. The project would be required to implement the City standard conditions of approval COA HAZ-2.1, described below, to ensure the project does not result in significant hazardous materials impacts during construction activities.

City Standard Conditions of Approval

COA HAZ-2.1: The project shall implement the following measures:

- **Soil and Groundwater Contamination:** The applicant/contractor is advised the project site is located in, or in close proximity to, an area of known soil and groundwater contamination, including the project site. The applicant/contractor is responsible for working with the Santa Clara County Department of Environmental Health (SCCDEH), the lead regulatory agency, to obtain the appropriate clearances and/or recommendations for work in the contaminated area.
- **Soil Management Plan:** Prepare a soil and groundwater management plan for review and approval by the Santa Clara County Department of Environmental Health (SCCDEH). Proof of approval or actions for site work required by the SCCDEH must be provided to the Building Inspection Division prior to the issuance of any demolition or building permits.
- **Discovery of Contaminated Soils:** If contaminated soils are discovered, the applicant shall ensure the contractor employs engineering controls and Best

Management Practices (BMPs) to minimize human exposure to potential contaminants. Engineering controls and construction BMPs shall include, but not be limited to, the following: (a) contractor employees working on-site shall be certified in OSHA's 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training; (b) contractor shall stockpile soil during redevelopment activities to allow for proper characterization and evaluation of disposal options; (c) contractor shall monitor area around construction site for fugitive vapor emissions with appropriate field screening instrumentation; (d) contractor shall water/mist soil as it is being excavated and loaded onto transportation trucks; (e) contractor shall place any stockpiled soil in areas shielded from prevailing winds; and (f) contractor shall cover the bottom of excavated areas with sheeting when work is not being performed.

- **Toxic Assessment:** A toxic assessment report shall be prepared and submitted as part of the building permit submittal. The applicant must demonstrate that hazardous materials do not exist on the site or that construction activities and the proposed use of this site are approved by: the City's Fire and Environmental Protection Division (FEPD); the State Department of Health Services; the Regional Water Quality Control Board; and any Federal agency with jurisdiction. No building permits shall be issued until each agency and/or department with jurisdiction has released the site as clean or a site toxics mitigation plan has been approved.

With the implementation of the above City standard conditions of approval, the impacts related to the release of hazardous materials would be less than significant because contaminated soil and groundwater would be properly identified and off hauled to the appropriate disposal facilities by implementing a soil and groundwater management plan. **(Less than Significant Impact)**

Asbestos, Lead Based Paint, and PCBs

Based on the estimated age of the existing on-site buildings, ACM, lead-based paint, and PCBs, may be present in some building materials. Building demolition could result in the release of these materials to the environment. The project would be required to implement the below City standard conditions of approval.

City Standard Conditions of Approval:

COA HAZ-2.2: The project shall implement the following measures:

- **Hazardous Materials Contamination:** To reduce the potential for construction workers and adjacent uses to encounter hazardous materials contamination from ACMs and lead-based paint, the following measures are to be included in the project:
 - a) In conformance with local, State, and Federal laws, an asbestos building survey and a lead-based paint survey shall be completed by a qualified professional to determine the presence of ACMs and/or lead-based paint

on the structures proposed for demolition. The surveys shall be completed prior to demolition work beginning on the structures.

- b) A registered asbestos abatement contractor shall be retained to remove and dispose of all potentially friable asbestos-containing materials, in accordance with the NESHAP guidelines, prior to building demolition that may disturb the materials. All construction activities shall be undertaken in accordance with Cal/OSHA standards, contained in Title 8 of the California Code of Regulations (CCR), Section 1529, to protect workers from exposure to asbestos. Materials containing more than one percent asbestos are also subject to BAAQMD regulations.

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 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 waste being disposed.

- **Building Demolition PCB Control:** Nonwood-frame buildings constructed before 1981 that shall be completely demolished are required to conduct representative sampling of priority building materials that may contain PCBs. If sample results of one or more priority building materials show PCBs concentrations greater than or equal to 50 ppm, the applicant is required to follow applicable Federal and State notification and abatement requirements prior to demolition of the building. Submit a completed “Polychlorinated Biphenyls (PCBs) Screening Assessment Applicant Package” with the building demolition plans for the project. A demolition permit shall not be issued until the completed “PCBs Screening Assessment Applicant Package” is submitted and approved by the City Fire and Environmental Protection Division (FEPD). Applicants are required to comply with applicable Federal and State regulations regarding notification and abatement of PCBs-containing materials. Contact the City’s FEPD at 650-903-6378 to obtain a copy of the “PCBs Screening Assessment Applicant Package” and related guidance and information.

With implementation of the above City standard conditions of approval, impacts from ACMs, lead based paint, and PCBs would be less than significant by identifying and properly removing these hazardous materials encountered during building demolition. **(Less than Significant Impact)**

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. (No Impact)
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The nearest school is Crittenden Middle School, which is approximately 0.5-mile west of the project site. There are no existing or proposed schools within one quarter of a mile of the project site.

Therefore, the project would not emit hazardous emissions within one quarter mile of a school. **(No 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)
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As discussed in Section 4.9.1.2 Existing Conditions, the project site is not on the Cortese List (i.e., the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5). **(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. **(Less than Significant Impact)**

Moffett Federal Airfield Comprehensive Land Use Plan

The ALUC reviews land uses within its AIA based on its established noise restriction area, height restriction area, and safety restriction area. As discussed in Section 4.9.1.2, the project site is located approximately 1.2 miles southwest of the Moffett Federal Airfield. It is within the Airfield's AIA and FAR Part 77 Notification Surface Area. The project was presented to the ALUC on November 16, 2022 and received a determination of consistency with two conditions, which are identified below as conditions of approval.

Condition of Approval:

COA HAZ-5.1: The project shall implement the following measures:

- **Building Height:** All new buildings shall not exceed the height limit of 182 feet above mean sea level (146 feet above grade).
- **Aviation Easement:** The proposed project shall process an aviation easement to notice future owners and occupants of buildings that there would be aviation activity around them.

The project's impact to the height restriction area is discussed below and would comply with COA HAZ-5.1. Based on this discussion, the proposed development with the implementation of condition of approval COA HAZ-5.1 would not expose people to safety hazards or excessive noise from Airfield operations. **(Less than Significant Impact)**

Federal Aviation Regulations Part 77

Based on the site location, any obstruction (permanent or temporary) exceeding 146 feet above grade would require FAA review. The proposed maximum building height of 85 feet would not require notification and review by the FAA to determine potential aviation hazard. However, the project's construction equipment (i.e., cranes) has the potential to exceed 146 feet in height, which would be subject to FAA's review. Compliance with FAA's regulations would reduce aviation hazards to a less than significant level. **(Less than Significant Impact)**

Impact HAZ-6: The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **(Less than Significant Impact)**

The City's Hazard Mitigation Plan outlines the City's emergency response procedures in the event of natural disasters. The proposed development would not alter evacuation routes. The project would not result in closure, rerouting, or substantial alteration of streets or property access points during or after construction. Construction would primarily occur within the project site, with the exception of the construction activities required to install the crosswalks, curb ramps, and gutters at the intersection of Terra Bella Avenue and San Rafael Avenue. The design of the crosswalks, curb ramps, and gutters

would comply with the City's design requirements and would not physically interfere with emergency response or evacuation. In addition, the project is not located in a flood zone, landslide, tsunami, and wildfire zones, and would be constructed in accordance with current building and fire codes to avoid unsafe building conditions. As discussed in Section 4.19 Utilities and Service Systems, the project, along with the entire City, would be subject to mandatory conservation measures during dry and multiple dry years, and the project would not hinder the City from providing sufficient water supply in normal, dry, and multiple dry year conditions. Therefore, the proposed project would be consistent with existing emergency response plans and emergency evacuation plans and would have a less than significant impact (**Less than Significant 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)
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The project site is located in a developed urban area. As discussed in Section 4.9.1.2, the project site is not located in a fire hazard zone or the WUI. For these reasons, the project would not expose people or structures to wildland fires. (**No Impact**)

4.9.3 Non-CEQA Effects

Per *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 Mountain View has policies (General Plan Policies PSA 3.2 and INC 18.1) that address existing hazardous materials conditions affecting a proposed project.

Vapor Intrusion

As discussed in Section 4.9.1.2, both project site at 1020 and 1040 Terra Bella have elevated levels of soil vapor contamination exceeding the respective residential ESL for the proposed residential building and commercial ESL for the proposed storage facility Building 2. Future occupants of these developments, therefore, have the potential to be adversely affected by intrusion of contaminated soil vapor beneath the buildings. The project would be required to implement the City standard conditions of approval COA HAZ-8.1 described below to adequately address soil vapor intrusion.

City Standard Condition of Approval

COA HAZ-8.1: Remediation: The applicant shall work with City staff, the necessary oversight agency (e.g., the U.S. Environmental Protection Agency, the State Department of Toxic Substances Control, State Regional Water Quality Control Board, County of Santa Clara Department of Environmental Health, etc.), and responsible parties, if necessary, to address any site remediation or building design/construction requirements to ensure appropriate on-site improvements in accordance with the oversight agency standard practice; local, State, and Federal regulations; and City Code requirements. Design of remediation equipment, equipment placement, or remediation activities will need to be reviewed and may require approval by all parties. Prior to issuance of any building or fire permits, the applicant shall either:

- (a) submit written proof of an approval from the oversight agency of remediation

activity and/or building and site design as deemed consistent with the remediation activity; or (b) provide written proof the work is not subject to approval from an oversight agency. A Certificate of Occupancy cannot be issued until final inspections have been completed by the City and the oversight agency, if required.

With implementation of the above City standard condition of approval, the health and safety of future occupants would be protected from soil vapor intrusion by requiring regulatory agency oversight to review the project, require any additional investigations, and implement vapor barrier design measures as necessary to prevent exposure of future occupants to contaminants in indoor air as a result of vapor intrusion.

Exposure during Construction Activities

As discussed above, the site contains known groundwater, soil, and soil vapor contamination and could expose construction workers to hazards during construction activities (e.g., demolition, grading, and excavation). The project would be required to implement the City standard condition of approval COA HAZ-8.2, described below, to protect the health and safety of construction workers.

City Standard Condition of Approval

COA HAZ-8.2: Health And Safety Measures: The permittee/contractor is responsible for preparing and implementing an appropriate health and safety plan to address the contamination and manage the operations in a safe manner and in compliance with the Cal/OSHA Construction Safety Orders and other State and Federal requirements.

With implementation of the above City standard conditions of approval, the health and safety of construction workers would be protected by preparing and implementing a health and safety plan to establish appropriate management practices for handling impacted soil, soil vapor, and groundwater or other materials that may potentially be encountered during construction activities.

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 State Water Resources Control Board (SWRCB) have been developed to fulfill the requirements of this legislation. EPA regulations include the 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 RWQCBs. The project site is within the jurisdiction of the San Francisco Bay RWQCB.

Under Section 303(d) of the federal Clean Water Act, the SWRCB and RWQCBs are required to identify impaired surface water bodies that do not meet water quality standards and develop total maximum daily loads (TMDLs) for contaminants of concern. The list of the state's identified impaired surface water bodies, known as the "303(d) list" can be found on the on the RWQCB's website.⁵⁵

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 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.

⁵⁵ San Francisco Regional Water Quality Control Board. "The 303(d) List of Impaired Water Bodies." Accessed July 5, 2022. https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/303dlist.html.

Regional and Local

San Francisco Bay Basin Plan

The San Francisco Bay RWQCB regulates water quality in accordance with the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan lists the beneficial uses that the San Francisco Bay RWQCB has identified for local aquifers, streams, marshes, rivers, and the San Francisco Bay, as well as the water quality objectives and criteria that must be met to protect these uses. The San Francisco Bay RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements, including permits for nonpoint sources such as the urban runoff discharged by a City's stormwater drainage system. The Basin Plan also describes watershed management programs and water quality attainment strategies.

Municipal Regional Permit Provision C.3

The San Francisco Bay RWQCB re-issued the MRP in May 2022 to regulate stormwater discharges from municipalities and local agencies (co-permittees) in Alameda, Contra Costa, San Mateo, and Santa Clara Counties, and the cities of Fairfield, Suisun City, and Vallejo.⁵⁶ Under Provision C.3 of the MRP, new and redevelopment projects that create or replace 5,000 square feet or more of impervious surface area are required to implement site design, source control, and Low Impact Development (LID)-based stormwater treatment controls to treat post-construction stormwater runoff. LID-based treatment controls are intended to maintain or restore the site's natural hydrologic functions, maximizing opportunities for infiltration and evapotranspiration, and using stormwater as a resource (e.g., rainwater harvesting for non-potable uses). The MRP also requires that stormwater treatment measures are properly installed, operated, and maintained.

In addition to water quality controls, the MRP requires new development and redevelopment projects that create or replace one acre or more of impervious surface to manage development-related increases in peak runoff flow, volume, and duration, where such hydromodification is likely to cause increased erosion, silt pollutant generation, or other impacts to local rivers, streams, and creeks. Projects may be deemed exempt from these requirements if: (1) the post-project impervious surface area is less than, or the same as, the pre-project impervious surface area; (2) the project is located in a catchment that drains to a hardened (e.g., continuously lined with concrete) engineered channel or channels or enclosed pipes, which extend continuously to the Bay, Delta, or flow controlled reservoir, or, in a catchment that drains to channels that are tidally influenced; or (3) the project is located in a catchment or subwatershed that is highly developed (i.e., that is 70 percent or more impervious).⁵⁷

⁵⁶ California Regional Water Quality Control Board San Francisco Region. *Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, NPDES Permit No. CAS612008*. May 11, 2022

⁵⁷ The Hydromodification Applicability Maps developed the permittees under Order No. R2-2009-0074 were prepared using this standard, adjusted to 65 percent imperviousness to account for the presence of vegetation on the photographic references used to determine imperviousness. Thus, the maps for Order No. R2-2009-0074 are accepted as meeting the 70 percent requirement.

Municipal Regional Permit Provision C.12.f

Provision C.12.f of the MRP requires co-permittee agencies to implement a control program for PCBs that reduces PCB loads by a specified amount during the term of the permit, thereby making substantial progress toward achieving the urban runoff PCBs wasteload allocation in the Basin Plan by March 2030.⁵⁸ Programs must include focused implementation of PCB control measures, such as source control, treatment control, and pollution prevention strategies. Municipalities throughout the Bay Area are updating their demolition permit processes to incorporate the management of PCBs in demolition building materials to ensure PCBs are not discharged to storm drains during demolition. 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 residential and wood frame structures are exempt.

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.

2021 Groundwater Management Plan

The 2021 Groundwater Management Plan (GWMP) describes Valley Water's comprehensive groundwater management framework, including existing and potential actions to achieve basin sustainability goals and ensure continued sustainable groundwater management. The GWMP covers the Santa Clara and Llagas subbasins, which are located entirely in Santa Clara County. Valley Water manages a diverse water supply portfolio, with sources including groundwater, local surface water, imported water, and recycled water. About half of the county's water supply comes from local sources and the other half comes from imported sources. Imported water includes the District's State Water Project and Central Valley contract supplies and supplies delivered by the San Francisco Public Utilities Commission (SFPUC) to cities in northern Santa Clara County. Local sources include natural groundwater recharge and surface water supplies. A small portion of the county's water supply is recycled water.

Local groundwater resources make up the foundation of the county's water supply, but they need to be augmented by the District's comprehensive water supply management activities to reliably meet the county's needs. These include the managed recharge of imported and local surface water and in-lieu groundwater recharge through the provision of treated surface water and raw water, acquisition of supplemental water supplies, and water conservation and recycling.⁵⁹

⁵⁸ California Regional Water Quality Control Board San Francisco Region. *Municipal Regional Stormwater NPDES Permit, Order No. R2-2022-0018, NPDES Permit No. CAS612008*. May 11, 2022

⁵⁹ Valley Water. *2021 Groundwater Management Plan, Santa Clara and Llagas Subbasins*. November 2021.

Local

City of Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts due to hydrology and water quality impacts. The following goals and policies are applicable to the proposed project.

Policy	Description
Infrastructure and Conservation Element	
INC-8.2	National Pollutant Discharge Elimination System Permit. Comply with requirements in the Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (MRP).
INC-8.4	Runoff pollution prevention. Reduce the amount of stormwater runoff and stormwater pollution entering creeks, water channels and the San Francisco Bay through participation in the Santa Clara Valley Urban Runoff Pollution Prevention Program.
INC-8.5	Site-specific stormwater treatment. Require post-construction stormwater treatment controls consistent with MRP requirements for both new development and redevelopment projects.
INC 8.6	Green streets. Seek opportunities to develop green streets and sustainable streetscapes that minimize stormwater runoff, using techniques such as on-street bio-swales, bio-retention, permeable pavement or other innovative approaches.
INC-8.7	Stormwater quality. Improve the water quality of stormwater and reduce flow quantities.

City of Mountain View Code of Ordinances

Chapter 8 (Buildings) of the City Code includes the currently adopted Green Building Code which details the stormwater management best management practices and regulations required by the City. Chapter 35 (Water, Sewage, and other Municipal Services) of the City Code outlines the City policies surrounding water infrastructure, including requirements for the discharge of stormwater into the City's stormwater infrastructure.

4.10.1.2 *Existing Conditions*

Stormwater Drainage

The municipal storm drain system serving the project site consists of storm drain inlets, conveyance pipes, culverts, channels and retention basins operated by the City of Mountain View Public Works Department. Drainage into the City system generally flows south to north towards San Francisco Bay. The project site consists of 4.54 acres (or approximately 95 percent) of percent impervious surfaces and 0.26 acre (or approximately five percent) of pervious surfaces. Runoff from the site flows into a 12-inch storm drain line in Terra Bella Avenue and 8-inch storm drain line in Linda Vista Avenue.

Water Quality

The water quality of streams, creeks, ponds, and other surface water bodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified sources, known as

nonpoint source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Urban stormwater runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, animal feces, etc.), pesticides, litter, and heavy metals. In sufficient concentration, these pollutants have been found to adversely affect the aquatic habitats to which they drain.

While there are no streams, creeks, ponds, or other surface water bodies located within the project site, Stevens Creek is located approximately 0.22-mile east of the project site. Stevens Creek is on the 2006 Clean Water Act Section 303(d) list due to diazinon pollution, total toxicity levels, the water temperature in the creek, and solid waste pollution.

Groundwater

The City of Mountain View is located within the Santa Clara Groundwater Basin (DWR Basin 2-9.02).⁶⁰ Hydrologically, the groundwater basin is separated into recharge and confined zones. Geological conditions in the recharge areas allow precipitation, stream flow, and water diverted into percolation areas to recharge the deeper aquifers. The confined zones include areas of the valley where low permeability clays and silts overlie the major groundwater aquifers which impedes the vertical flow of groundwater into the deeper aquifers. The City of Mountain View, including the project site, lies entirely within the area of the confined zone.⁶¹

As discussed in Section 4.7.1.2, groundwater was encountered under the project site at depths between seven to eight feet bgs.⁶² Water levels on-site may vary depending on seasonal precipitation, irrigation practices, and other climate conditions.

Flooding

The project site is located within Flood Zone X, which is not a Special Flood Hazard Area as identified by FEMA FIRM.⁶³ Flood Zone X is defined as an area determined to be outside the one percent and 0.2 percent annual chance floodplains, indicative of a minimal flood hazard.

Seiches and Tsunamis

A seiche is the oscillation of a body of water, typically caused by changes in atmospheric pressure, strong winds, earthquakes, tsunamis, or tidal movements. Seiches occur most frequently in enclosed or semi-enclosed basins such as lakes, bays, or harbors. There are no enclosed or semi-enclosed bodies of water near the project site.

⁶⁰ United States Geological Survey. "Groundwater Quality in the San Francisco Bay Groundwater Basins, California." March 2013. Accessed July 5, 2022. <https://pubs.usgs.gov/fs/2012/3111/pdf/fs20123111.pdf>.

⁶¹ Santa Clara Valley Water District. 2021 Groundwater Management Plan. Accessed July 5, 2022. https://s3.us-west-2.amazonaws.com/assets.valleywater.org/2021_GWMP_web_version.pdf.

⁶² Giles Engineering Associates, Inc. *Geotechnical Engineering Exploration and Analysis*. September 17, 2021.

⁶³ Federal Emergency Management Agency. Flood Insurance Rate Map, Community Panel No. 06085C0037H. Effective Date May 18, 2009.

Tsunamis are long period water waves caused by underwater seismic events, volcanic eruptions, or undersea landslides. The project site is located approximately 1.3-mile southwest of San Francisco Bay and therefore, is not located within an identified tsunami inundation area.⁶⁴

4.10.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– 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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
– impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

⁶⁴ Association of Bay Area Governments. *Tsunami & Additional Hazards*. Accessed July 5, 2022. <https://abag.ca.gov/our-work/resilience/data-research/tsunami-additional-hazards>.

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

Implementation of the proposed project would require demolition, excavation, grading, and paving of the project site, which could result in temporary impacts to surface water quality. These construction activities could expose building materials containing PCBs and increase erosion and sedimentation once the disturbed soil is exposed to water and wind. This would increase the potential for soil, sediment, and pollutants to be carried by runoff into local waterways and the San Francisco Bay.

Since the proposed project would disturb more than one acre, it is required to comply with the State of California General Construction Permit and submit a SWPPP and NOI to the SWRCB. Compliance with the General Construction Permit would ensure that all BMPs related to stormwater pollution prevention for construction projects are implemented. Further, the project is required to comply with the MRP Provision C.12.f and submit a PCBs Screening Assessment Applicant Package consistent with the City's Environmental Protection requirements, which require applicants to screen the buildings proposed for demolition to determine whether it is appropriate to conduct additional testing on building materials (City standard condition of approval COA HAZ-2.2).⁶⁵ The project would also require dewatering during construction. As discussed in Section 4.9 Hazards and Hazardous Materials, the project shall implement City standard condition of approval COA HAZ-2.1 to implement a soil and groundwater management plan to properly dispose dewatered groundwater. The project would be required to comply with the below City standard conditions of approval, which are consistent with the California General Construction Permit and MRP requirements.

City Standard Conditions of Approval:

COA HYD-1.1: The project shall implement the following measures:

- **State of California Construction General Stormwater Permit:** A "Notice of Intent" and "Stormwater Pollution Prevention Plan" shall be prepared for construction projects disturbing one (1) acre or more of land. Proof of coverage under the State General Construction Activity Stormwater Permit shall be attached to the building plans.
- **Construction Sediment and Erosion Control Plan:** The applicant shall submit a written plan acceptable to the City which shows controls to be used at the site to minimize sediment runoff and erosion during storm events. The plan shall include installation of the following items where appropriate: (a) silt fences around the site perimeter; (b) gravel bags surrounding catch basins; (c) filter fabric over catch basins; (d) covering of exposed stockpiles; (e) concrete washout areas; (f) stabilized rock/gravel driveways at points of egress from the site; and (g) vegetation, hydroseeding, or other soil stabilization methods for high-erosion areas. The plan shall also include routine street sweeping and storm drain catch basin cleaning.

⁶⁵ City of Mountain View. "New Requirement for Demolition Projects." Accessed July 5, 2022. <https://www.mountainview.gov/depts/fire/environment/protection.asp>.

- **Construction Best Management Practices:** All construction projects shall be conducted in a manner which prevents the release of hazardous materials, hazardous waste, polluted water, and sediments to the storm drain system
- **High-Erosion Storage Areas:** High-erosion areas (areas paved with loose sand/gravel, areas used for storage of high-sediment-producing materials, such as rock or sand, or areas designated for high traffic or heavy equipment traffic) shall be designed to prevent the run-on of stormwater and runoff of spills by one of the following: (a) covering the area and either sloping the area inward (negative slope) or providing a berm or curb around its perimeter; or (b) retrofitting the area with a treatment system to intercept and remove sediments from storm drain runoff.

The project, with the implementation of the above City standard conditions of approval COA HYD-1.1, would reduce construction-related water quality impacts to a less than significant level by limiting the release of pollutants into waterways through preparing a NOI and SWPPP, implementing a construction sediment and erosion control plan, construction BMPs and covering high-erosion staging areas. **(Less than Significant Impact)**

Post-Construction

Construction of the project would replace more than 10,000 square feet of impervious surface area. As a result, the project would be required to comply with the requirements of the MRP. Provision C.3 requires the project to incorporate site design, source control, and LID-based stormwater treatment controls to reduce the pollutant loads of runoff from the project. The project would reduce and treat surface runoff on-site by using flow-through planters, directing runoff from impervious surfaces to landscaped areas, and installing bioretention areas within the project site. Development of the proposed project, in compliance with existing regulations and best management practices (including the MRP and City Code), would reduce water quality impacts.

In addition, the project would be required to include the following measures, based on RWQCB requirements, to reduce stormwater runoff impacts from project implementation.

City Standard Conditions of Approval:

COA HYD-1.2 The project shall implement the following measures:

- **Stormwater Treatment (C.3):** This project would create or replace more than ten thousand (10,000) square feet of impervious surface; therefore, stormwater runoff shall be directed to approved permanent treatment controls as described in the City's guidance document entitled, "Stormwater Quality Guidelines for Development Projects." The City's guidelines also describe the requirement to select Low-Impact Development (LID) types of stormwater treatment controls; the types of projects that are exempt from this requirement; and the Infeasibility and Special Projects exemptions from the LID requirement.

The "Stormwater Quality Guidelines for Development Projects" document requires applicants to submit a Stormwater Management Plan, including information such as the type, location, and sizing calculations of the treatment

controls that shall be installed. Include three stamped and signed copies of the Final Stormwater Management Plan with the building plan submittal. The Stormwater Management Plan must include a stamped and signed certification by a qualified Engineer, stating that the Stormwater Management Plan complies with the City's guidelines and the State NPDES Permit. Stormwater treatment controls required under this condition may be required to enter into a formal recorded Maintenance Agreement with the City.

- **Landscape Design:** Landscape design shall minimize runoff and promote surface filtration. Examples include: (a) No steep slopes exceeding 10 percent; (b) Using mulches in planter areas without ground cover to avoid sedimentation runoff; (c) Installing plants with low water requirements; and (d) Installing appropriate plants for the location in accordance with appropriate climate zones. Identify which practices shall be used in the building plan submittal.
- **Efficient Irrigation:** Common areas shall employ efficient irrigation to avoid excess irrigation runoff. Examples include: (a) Setting irrigation timers to avoid runoff by splitting irrigations into several short cycles; (b) Employing multi-programmable irrigation controllers; (c) Employing rain shutoff devices to prevent irrigation after significant precipitation; (d) Use of drip irrigations for all planter areas which have a shrub density that would cause excessive spray interference of an overhead system; and (e) Use of flow reducers to mitigate broken heads next to sidewalks, streets and driveways. Identify which practices shall be used in the building plan submittal.
- **Outdoor Storage Areas (Including Garbage Enclosures):** Outdoor storage areas (for storage of equipment or materials which could decompose, disintegrate, leak or otherwise contaminate stormwater runoff), including garbage enclosures, shall be designed to prevent the run-on of stormwater and runoff of spills by all of the following: (a) Paving the area with concrete or other nonpermeable surface; (b) Covering the area; and (c) Sloping the area inward (negative slope) or installing a berm or curb around its perimeter. There shall be no storm drains in outdoor storage areas.

With the implementation of the City standard conditions of approval, based on RWQCB requirements, the project's post-construction water quality impacts would be less than significant by treating surface runoff. **(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)
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Groundwater recharge occurs when surface water percolates through the soil to recharge groundwater aquifers. As shown in Table 4.10-1, the proposed project would decrease the amount of impervious surface on-site from 95 percent to 81 percent compared to existing conditions. Therefore, implementation of the project would not interfere with groundwater recharge because it would not

reduce the amount of surface water that is allowed to percolate on-site. In addition, the project site is not located in a recharge area as identified by the 2021 GWMP.⁶⁶

Table 4.10-1: Impervious Surface Acreage On-Site		
	Acreage	Percent
A. Existing Conditions	4.54	95
B. Project Conditions	3.89	81
<i>Net Difference (A-B)</i>	<i>-0.65</i>	<i>-14</i>

As discussed in Section 4.7 Geology and Soils, implementation of the project would require temporary groundwater dewatering during construction activities due to the presence of groundwater seven to eight feet bgs and the proposed maximum excavation depth of eight feet. Although construction would require temporary dewatering, the amount of water that would be pumped is not expected to be significant. The project would implement City standard condition of approval COA GEO-1.1 to minimize the volume of groundwater removed during project construction and ensure construction dewatering does not substantially decrease groundwater supply. Based on the above discussion, implementation of the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. **(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)**

There are no streams or rivers on-site, therefore, the proposed project would not affect the existing drainage pattern of any streams or rivers. As discussed under Impacts HYD-1 and HYD-2, the proposed project would comply with Provision C.3 of the MRP requirement to incorporate site design, source control, and LID-based stormwater treatment controls and would decrease the amount of impervious surfaces on-site from 95 to 81 percent, thereby reducing the amount of surface runoff compared to existing conditions. The existing storm drain system, therefore, would continue to adequately serve the project site under project conditions. As a result, the project would not result in substantial erosion or siltation, flooding, or additional sources of polluted runoff. **(Less than Significant Impact)**

⁶⁶ Valley Water. 2021 *Groundwater Management Plan, Santa Clara and Llagas Subbasins*. November 2021. Page 2-1.

Impact HYD-4: The project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones. **(Less than Significant Impact)**

As discussed in Section 4.9 Hazards and Hazardous Materials, the proposed residential and storage facility buildings would not use or store substantial quantities of hazardous materials on-site. As discussed in Section 4.10.1.2 Existing Conditions, the project site is not located within a 100-year flood hazard area or located in an area that is subject to flood risks associated with tsunamis or seiches. For these reasons, the project would not risk release of substantial pollutants due to inundation. **(Less than Significant Impact)**

Impact HYD-5: The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. **(Less than Significant Impact)**

The San Francisco Basin Plan provides a framework for state and local governments to meet water quality objectives and criteria to protect the beneficial uses of local aquifers, streams, marshes, and San Francisco Bay. Consistent with the San Francisco Basin Plan, the proposed project would comply with the MRP requirement to install LID treatment controls to treat stormwater runoff and implement the City standard conditions of approval COA HYD-1.1 identified under Impact HYD-1. In addition, the project would decrease impervious surfaces on-site and would not result in any substantial depletion of groundwater supplies. Therefore, the project would not interfere with implementation of the 2021 Groundwater Management Plan.

For these reasons, the project would not conflict with water quality control plans or sustainable groundwater management plans. **(Less than Significant Impact)**

4.11 LAND USE AND PLANNING

4.11.1 Environmental Setting

4.11.1.1 *Regulatory Framework*

Local

Moffett Federal Airfield Comprehensive Land Use Plan

The Moffett Federal Airfield CLUP, adopted by the Santa Clara County Airport Land Use Commission, is intended to safeguard the general welfare of the inhabitants within the vicinity of the airport, as well as aircraft occupants.⁶⁷ The CLUP is also intended to ensure that surrounding new land uses do not affect airfield operations. The CLUP identifies the Airfield's AIA. The AIA is a composite of areas surrounding the Airfield that are affected by noise, height, and safety considerations. Within the AIA, the CLUP establishes a (1) noise restriction area, (2) height restriction area, and (3) safety restriction area.

Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts due to land use and planning impacts. The following goals and policies are applicable to the proposed project.

Policy	Description
Land Use and Design	
LUD 3.1	Land use and transportation. Focus higher land use intensities and densities within a half-mile of public transit service, and along major commute corridors.
LUD 3.4	Land use conflict. Minimize conflicts between different land uses
LUD 3.8	Preserved land use districts. Promote and preserve commercial and industrial districts that support a diversified economic base.
LUD 15.2	Sustainable development focus. Require sustainable site planning, building, and design strategies.
LUD 15.4	Wildlife friendly development. Implement wildlife friendly site planning, building and design strategies.

4.11.1.2 *Existing Conditions*

The General Plan designation for the project site is General Industrial. This designation provides for industrial uses including manufacturing and storage, research and development, and administrative offices. The City does not permit residential uses in this land use designation.

The project site is zoned MM (General Industrial). Specific purposes of the MM district include manufacturing, storage facilities, and warehouses. Other uses such as churches, restaurants, offices,

⁶⁷ Santa Clara County Airport Land Use Commission. *Moffett Federal Airfield Comprehensive Land Use Plan*. November 2, 2016.

and safe parking⁶⁸ are conditionally permitted. Residential uses are not permitted in the MM zoning district.

The project site is currently developed with a single dilapidated, uninhabitable residence, a safe parking lot, and 18 storage facility buildings that are comprised of a rental office and storage lockers. The development to the west, south, and east of the project site consists primarily of office and industrial uses. There is also a church to the west of the project site. US 101 is located directly north of the project site.

4.11.2 **Impact Discussion**

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact LU-1: The project would not physically divide an established community. **(Less than Significant Impact)**

A physical division of an established community typically refers to the construction of a physical feature (such as a wall, roadway, or railroad tracks) or the removal of a means of access (such as a local roadway or bridge) that would impair mobility within an existing community or between communities.

The project would redevelop the site with a new residential and storage facility buildings. The project would not include the construction of features or remove means of access that would divide the community. Thus, development of the project would not physically divide an established community. **(Less than Significant 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)**

General Plan

The project would require a General Plan amendment to accommodate the proposed residential use on-site, as the current General Plan land use designation of General Industrial does not allow for residential uses. The General Plan text would also be amended to increase the maximum allowable

⁶⁸ “Safe parking” is a program that gives a temporary, overnight, safe location to park for individuals and families living in a vehicle while providing access to services that will transition them into more stable housing. City of Mountain View. “Safe Parking Program.” Accessed September 9, 2022. Available at: https://www.mountainview.gov/depts/comdev/housing/homelessness/safe_parking_program/default.asp.

FAR under the General Industrial land use designation from 0.55 to 2.5 for projects that provide significant public benefits in support of affordable housing. The project would be consistent with applicable General Plan land use policies (specifically those identified in Section 4.11.1.1 Regulatory Framework) by intensifying development on a site located within half a mile of public transit service, proposing a use that is compatible with the existing mix of uses in the project area (residential, office, and light industrial), preserving and intensify the existing storage facility, complying with CALGreen and the City's Green Building Code, and not developing in a wildfire hazard zone. **(Less than Significant Impact)**

Moffett Field CLUP

As discussed in Section 4.9 Hazards and Hazardous Materials, the project site is located within the AIA but is not located within the airfield's 65 dBA noise contour area or airport safety zones. The CLUP relies on the FAR Part 77 Notification Surface review process to regulate height restrictions. The proposed maximum building height of 85 feet would not require notification and review by the FAA to determine potential aviation hazard. However, if the project's construction equipment (i.e., cranes) has the potential to exceed 146 feet in height, it would be subject to FAA's review. Compliance with FAA's regulations would reduce aviation hazards to a less than significant level. Furthermore, the project was presented to the ALUC on November 16, 2022 and received a determination of consistency with two conditions, which are listed as condition of approval COA HAZ-5.1 in Section 4.9 Hazards and Hazardous Materials and include limiting the building height below 146 feet at grade and requiring an avigation easement. For these reasons, the project would not conflict with airport operations at Moffett Federal Airfield. **(Less than Significant 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 in an urban area and is currently developed with a residential building and storage facility buildings. According to the U.S. Geologic Service (USGS), the project site and the surrounding area do not contain any mineral resources or mineral resource production areas.⁶⁹

4.12.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

⁶⁹ United States Geological Survey. "Mineral Resources Online Spatial Data." Accessed July 5, 2022.
<https://mrdata.usgs.gov/general/map-us.html>

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)
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As discussed above in Section 4.12.1.2 Existing Conditions, there are no known mineral resources on-site. Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the residents in the state or region. **(No Impact)**

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)
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The project site is not identified in the General Plan as containing any locally important mineral resources and no known mineral resources have previously been discovered on-site. The project, therefore, would not result in impacts to locally important mineral resource recovery sites. **(No Impact)**

4.13 NOISE

The following discussion is based on a Noise Assessment prepared by Illingworth & Rodkin, Inc. dated September 15, 2022. A copy of this report is included in Appendix J of this Initial Study.

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} , L_{dn} , or CNEL.⁷⁰ 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.

⁷⁰ L_{eq} is a measurement of average energy level intensity of noise over a given period of time. Day-Night Level (L_{dn}) 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 L_{dn} are typically within two dBA of the peak-hour L_{eq} .

4.13.1.2 Regulatory Framework

Federal and State

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. There are established criteria for frequent events (more than 70 events of the same source per day), occasional events (30 to 70 vibration events of the same source per day), and infrequent events (less than 30 vibration events of the same source per day). 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. <i>Transit Noise and Vibration Assessment Manual</i> . September 2018.			

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 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 L_{dn} noise contour for a freeway or expressway, railroad, or industrial source.

Regional and Local

Moffett Federal Airfield Comprehensive Land Use Plan

The project site is approximately 1.2 miles southwest of the Moffett Federal Airfield, which is the closest airport to the site. The Moffett Federal Airfield CLUP, adopted by the Santa Clara County Airport Land Use Commission, is intended to safeguard the general welfare of the inhabitants within

the vicinity of the airport, as well as aircraft occupants.⁷¹ The CLUP includes noise exposure maps and guidelines intended to minimize the public's exposure to excessive noise and safety hazards. The CLUP identifies the AIA. The AIA is a composite of areas surrounding the Airfield that are affected by noise, height, and safety considerations. Within the AIA, the CLUP establishes a (1) noise restriction area, (2) height restriction area, and (3) safety restriction area.

The Santa Clara County ALUC has jurisdiction over new land uses in the vicinity of airports, and establishes 65 dBA CNEL as the maximum allowable noise level considered compatible with residential uses. Recommendations made by the ALUC are advisory in nature to the local jurisdictions, not mandatory.

City of Mountain View 2030 General Plan

The purpose of the City of Mountain View 2030 General Plan Noise Element is to guide policies for addressing exposure to current and projected noise sources in Mountain View. The Noise Element includes a land use compatibility section which outlines acceptable outdoor noise environment standards for land use categories, as shown below in Table 4.13-2.

⁷¹ Santa Clara County Airport Land Use Commission. *Moffett Federal Airfield Comprehensive Land Use Plan*. November 18, 2016.

Table 4.13-2: General Plan Outdoor Noise Acceptability Guidelines

Land Use Category	Community Noise Exposure in Decibels (CNEL) Day/Night Average Noise Level in Decibels (Ldn)						
	55	60	65	70	75	80	85
Residential-Single-Family, Duplex, Mobile Homes	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Residential-Multi-Family Transient Lodging-Motels, Hotels	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Schools, Libraries, Churches, Hospitals, Nursing Homes	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Auditoriums, Concert Halls, Amphitheaters, Sports Arenas, Outdoor Spectator Sports	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Clearly Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Playgrounds, Neighborhood Parks	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Golf Courses, Riding Stables, Water Recreation, Cemeteries	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
Office Buildings, Business Commercial and Professional	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Industrial, Manufacturing, Utilities, Agriculture	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Acceptable	Conditionally Acceptable	Conditionally Acceptable	Normally Unacceptable

NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE

New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

NORMALLY UNACCEPTABLE

New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE

New construction or development clearly should not be undertaken.

Source: State of California General Plan Guidelines, 2003.

The following General Plan policies are intended to reduce noise impacts and would be applicable to the proposed project.

Policy	Description
NOI 1.1	Land Use Compatibility. Use the Outdoor Noise Acceptability Guidelines as a guide for planning and development decisions.
NOI 1.2	<p>Noise-sensitive land uses. Require new development of noise-sensitive land uses to incorporate measures into the project design to reduce interior and exterior noise levels to the following acceptable levels:</p> <ul style="list-style-type: none"> • New single-family developments shall maintain a standard of 65 dBA L_{dn} for exterior noise in private outdoor active use areas. • New multi-family residential developments shall maintain a standard of 65 dBA L_{dn} for private and community outdoor recreation use areas. Noise standards do not apply to private decks and balconies in multi-family residential developments. • Interior noise levels shall not exceed 45 dBA L_{dn} in all new single-family and multi-family residential units. • Where new single-family and multi-family residential units would be exposed to intermittent noise from major transportation sources such as train or airport operations, new construction shall achieve an interior noise level of 65 dBA through measures such as site design or special construction materials. This standard shall apply to areas exposed to four or more major transportation noise events such as passing trains or aircraft flyovers per day.
NOI 1.3	Exceeding acceptable noise thresholds. If noise levels in the area of a proposed project would exceed normally acceptable thresholds, the City shall require a detailed analysis of proposed noise reduction measures to determine whether the proposed use is compatible. As needed, noise insulation features shall be included in the design of such projects to reduce exterior noise levels to meet acceptable thresholds, or for uses with no active outdoor use areas, to ensure acceptable interior noise levels.
NOI 1.4	Site planning. Use site planning and project design strategies to achieve the noise level standards in NOI 1.1 (Land Use Compatibility) and in NOI 1.2 (Noise Sensitive Land Uses). The use of noise barriers shall be considered after all practical design-related noise measures have been integrated into the project design.
NOI 1.5	Major roadways. Reduce the noise impacts from major arterials and freeways.
NOI 1.6	Sensitive uses. Minimize noise impacts on noise-sensitive land uses, such as residential uses, schools, hospitals and child-care facilities.
NOI 1.7	Stationary sources. Restrict noise levels from stationary sources through enforcement of the Noise Ordinance.

City of Mountain View Code of Ordinances

The City of Mountain View addresses noise regulations and goals in the zoning chapter of the City Code. The City's codes help protect the community from exposure to excessive noise and also specify how noise is measured and regulated. Noise is also regulated through standard project conditions of approval, and the Mountain View Police Department and the City Attorney's office enforce noise violations.

Construction noise impacts primarily occur when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses (e.g., residences), and/or when construction duration lasts over an extended period of time. Section 8.70.1 of the City Code restricts the hours of construction

activity to 7:00 a.m. to 6:00 p.m., Monday through Friday. No construction activity is permitted on Saturday, Sunday, or holidays without written approval from the City. Construction activities are defined to include any physical activity on the construction site or in the project's staging area, including the delivery of materials.

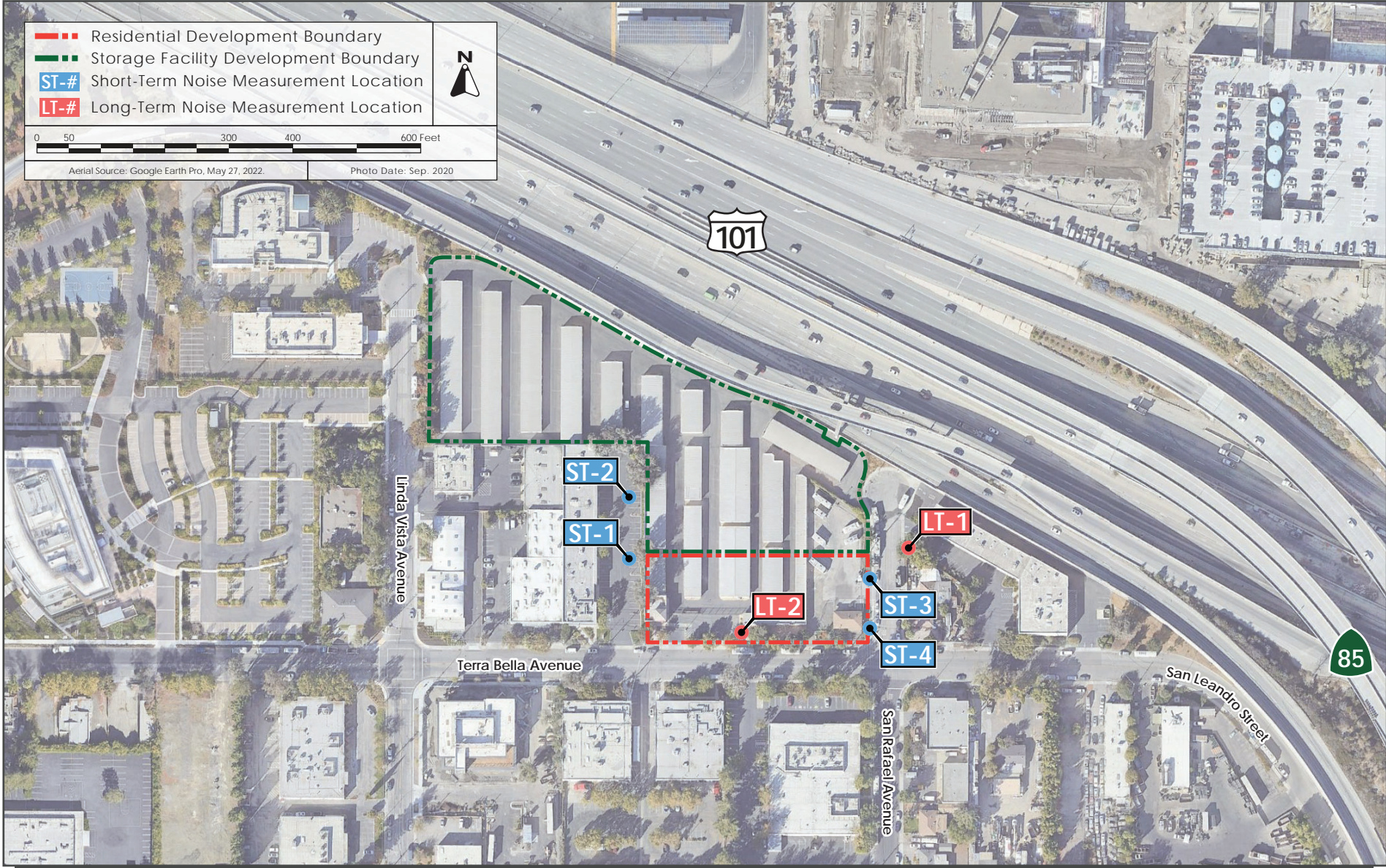
The City of Mountain View also identifies limits on noise from stationary equipment (such as heating, ventilation, and air conditioning mechanical systems, delivery truck idling, loading/unloading activities, recreation activities, and parking lot operations) in Section 21.26 of the City Code. The maximum allowable noise level is 55 dBA during the day and 50 dBA at night (10:00 p.m. to 7:00 a.m.), unless it has been demonstrated that such operation would not be detrimental to the health, safety, peace, morals, comfort or general welfare of residents subjected to such noise, and the use has been granted a permit by the Zoning Administrator.

4.13.1.3 *Existing Conditions*

The noise environment at the proposed project site is currently dominated by vehicular traffic along US 101. Secondary noise sources would include vehicular traffic along Terra Bella Avenue. A summary of the noise levels measured on-site are included in Table 4.13-3 and Table 4.13-4 below. The noise measurement locations are shown on Figure 4.13-1 below.

Table 4.13-3: Summary of Long-Term Noise Measurement Data (dBA)			
Noise Measurement Location	Daytime L_{eq} Range	Nighttime L_{eq} Range	Average Noise Level (L_{dn})
LT-1: ~ 280 feet southwest of the centerline of US 101	69 to 72	61 to 70	74
LT-2: ~ 505 feet southwest of the centerline of US 101 and 55 feet north of Terra Bella Avenue	61 to 66	54 to 65	64
Source: Illingworth & Rodkin, Inc. <i>1020 & 1040 Terra Bella Avenue CEQA Noise Assessment</i> . September 15, 2022.			

Table 4.13-4: Summary of Short-Term Noise Measurement Data (dBA)						
Noise Measurement Location	L_{max}	L₍₁₎	L₍₁₀₎	L₍₅₀₎	L₍₉₀₎	L_{eq}
ST-1a: ~485 feet from the Centerline of US 101, at a height of 5 feet	63	62	61	59	58	60
ST-1b: ~485 feet from the Centerline of US 101, at a height of 24 feet	62	67	66	65	63	65
ST-2a: ~400 feet from the Centerline of US 101, at a height of 5 feet	71	68	65	62	61	63
ST-2b: ~400 feet from the Centerline of US 101, at a height of 24 feet	72	71	70	69	67	69
ST-3: ~375 feet from the Centerline of US 101, at a height of 5 feet	72	68	66	64	63	65
ST-4: ~415 feet from the Centerline of US 101, at a height of 5 feet	72	69	66	63	62	64
Source: Illingworth & Rodkin, Inc. <i>1020 & 1040 Terra Bella Avenue CEQA Noise Assessment</i> . September 15, 2022.						



NOISE MEASUREMENT LOCATIONS

FIGURE 4.13-1

4.13.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

The CEQA Guidelines state that a project would normally be considered to have a significant impact if noise levels conflict with adopted environmental standards or plans, or if noise levels generated by the project will substantially increase existing noise levels at noise-sensitive receivers on a permanent or temporary basis. CEQA does not define what noise level increase would be substantial. 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.

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)
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Construction Noise

Project Construction

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive 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), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Construction of the entire project would take approximately 30 months and would be split into two main phases. The residential building and the westernmost storage facility building (Building 1) would

be constructed in Phase 1 and would take approximately 22 months to complete, with seven of those months consisting of overlapping construction at both portions of the project site. The easternmost storage facility building (Building 2) would be constructed in Phase 2 and would take approximately 12 months to complete. Project construction activities would include demolition, site preparation, grading and excavation, building construction, architectural coatings, and paving.

The City of Mountain View does not establish noise level thresholds for construction activities. In past practice, the City has required standard construction noise reduction measures if the hourly average noise levels exceed 60 dBA L_{eq} , and the ambient by at least five dBA L_{eq} , for a period of more than one year at adjacent residential land uses to reduce impacts to a less than significant level. The City currently utilizes the noise limits established by the Federal Transit Administration (FTA) to identify potential impacts due to substantial temporary construction noise, which are 80 dBA L_{eq} at residential land uses and 90 dBA L_{eq} at commercial and industrial land uses during daytime hours.

As described in additional detail in Appendix J, the nearest existing residence is located approximately 445 feet east as measured from the center of the project site.⁷² A new residential building approximately 515 feet west of the center of the project site is under construction, and would be constructed when the proposed project begins construction. The nearest non-residential use is the adjacent office building approximately 80 feet southwest of the center of the project site. The project specific analysis determined that construction noise levels would potentially reach 74 dBA L_{eq} on occasion at the nearest residential land use, and 80 dBA L_{eq} at the nearest existing commercial land use, as calculated from the center of the project site phases. The potential highest noise level for both the nearest residence and office use would occur in the grading and excavation phase of construction. Construction noise levels would not exceed 80 dBA L_{eq} at residential land uses near the site or 90 dBA L_{eq} at the commercial land uses near the site, however, comparing against City's past practices, project construction would exceed one year and would be subject to the following City standard conditions of approval to reduce construction noise impacts to surrounding land uses.

City Standard Conditions of Approval:

COA NOI-1.1: The project shall implement the following measures:

- **Work Hours** - No work shall commence on the job site prior to 7:00 a.m. nor continue later than 6:00 p.m., Monday through Friday, nor shall any work be permitted on Saturday or Sunday or any holiday unless prior approval is granted by the Chief Building Official. At the discretion of the Chief Building Official, the general contractor or the developer may be required to erect a sign at a prominent location on the construction site to advise subcontractor and material suppliers of the working hours. Violation of this condition of approval may be subject to the penalties outlined in Section 8.6 of the City Code and/or suspension of building permits.
- **Notice of Construction** - The applicant shall notify neighbors within 300 feet of the project site of the construction schedule in writing, prior to construction.

⁷² Similar to the air quality analysis, the noise assessment conservatively assumed that the former residential building east of the project site, currently occupied by a roofing company, is the closest residence.

A copy of the notice and the mailing list shall be submitted prior to issuance of building permits.

- **Construction Noise Reduction** - The following noise reduction measures shall be incorporated into construction plans and contractor specifications to reduce the impact of temporary construction-related noise on nearby properties: a. comply with manufacturer's muffler requirements on all construction equipment engines; b. turn off construction equipment when not in use, where applicable; c. locate stationary equipment as far as practicable from receiving properties; d. use temporary sound barriers or sound curtains around loud stationary equipment if the other noise reduction methods are not effective or possible; e. and shroud or shield impact tools and use electric powered rather than diesel-powered construction equipment.
- **Disturbance Coordinator** - The applicant shall designate a "disturbance coordinator" who shall be responsible for responding to any local complaints regarding construction noise. The coordinator (who may be an employee of the general contractor) shall determine the cause of the complaint and will require that reasonable measures warranted to correct the problem be implemented. A telephone number of the noise disturbance coordinator shall be conspicuously posted at the construction site fence and on the notification sent to neighbors adjacent to the site. The sign must also list an emergency after-hours contact number for emergency personnel.

The project, with the implementation of City standard conditions of approval COA NOI-1.1, would result in less than significant construction noise impacts by notifying neighbors of the project construction schedule, designating a disturbance coordinator, working within the allowed construction hours, and implementing noise reduction measures. **(Less than Significant Impact)**

Cumulative Construction

As discussed in Section 4.3 Air Quality under Impact AIR-1, there are two other development projects within 1,000 feet of the project site:

- 1001 North Shoreline Boulevard (150 feet west) – two buildings totaling 303 dwelling units and a five level parking garage(approved)
- 1155 & 1185 Terra Bella Avenue (400 feet southwest) – 20,000-square foot office building (proposed/pending)

The 1001 North Shoreline Boulevard project is developing two residential buildings. The first building is currently under construction approximately 515 feet west from the center of the 1020 and 1040 Terra Bella Avenue portion of the project site and is scheduled to be completed before construction of Phase 1 at the 1020 and 1040 Terra Bella Avenue portion of the project site begins. Construction of the second building at 1001 North Shoreline Boulevard is to begin in early 2024 and its construction would overlap with the construction of Phase 1 and 2 at the project site. During this overlapping construction period, temporary combined construction noise levels at nearby receptors may be up to two dBA higher than if only one project was under construction. Construction at nearby 1155 & 1185 Terra Bella Avenue (if approved) is scheduled to begin early 2024, which could overlap with construction at the project

site and 1001 North Shoreline Boulevard. During this overlapping construction period, temporary combined construction noise levels at nearby receptors may be up to three dBA higher than if only one project was under construction. However, in no case would construction noise levels exceed the 80 dBA noise limit at existing nearby residential properties or the 90 dBA noise limit at existing nearby commercial properties. Therefore, cumulative construction noise impact would be less than significant. **(Less than Significant Cumulative Impact)**

Operational Noise

Mechanical Equipment Noise

The proposed residential and commercial structures would include mechanical equipment such as air conditioning, heating systems, and exhaust fans. The project would implement the following City standard condition of approval to ensure that impacts from mechanical equipment noise would meet stationary equipment noise limits identified in City Code Section 21.26. During the building permit process, a project-specific acoustical analysis that demonstrates compliance with day and nighttime noise limits at the adjoining residentially used property would be required as part of the permit application.

City Standard Condition of Approval:

COA NOI-1.2: Mechanical Equipment -The noise emitted by any mechanical equipment shall not exceed a level of 55 dB(A) during the day or 50 dB(A) during the night, 10:00 p.m. to 7:00 a.m., when measured at any location on the adjoining residentially used property.

A qualified acoustical consultant shall be retained to review mechanical noise as these systems are selected to determine specific noise reduction measures necessary to reduce noise to comply with the City's noise level requirements. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels and installation of noise barriers, such as enclosures and parapet walls, to block the line-of-sight between the noise source and the nearest receptors. Alternate measures may include locating equipment in less noise-sensitive areas, such as the rooftop of the buildings away from the building's edge nearest the noise-sensitive receptors, where feasible. With implementation of the above City standard condition of approval COA NOI-1.2, project mechanical equipment would not substantially increase noise levels in the project area. **(Less than Significant Impact)**

Project Traffic

A significant noise impact would occur if traffic generated by the project would substantially increase noise levels at sensitive receivers in the vicinity. A substantial increase would occur if the noise level increase is three dBA DNL or greater, as existing noise levels at the nearby residences in the area would exceed 60 dBA DNL. Generally, traffic volumes need to double to result in a perceptible (three dB) noise increase. As discussed in the project-specific Transportation Analysis, the project would result in a net increase of 996 new daily vehicle trips.⁷³ The main source of traffic noise at the project

⁷³ Hexagon Transportation Consultants, Inc. *1020-1040 Terra Bella Avenue Transportation Analysis*. November 22, 2022. Page 14.

site is from US 101, and the number of trips generated by the project would not double traffic volumes on US 101. Therefore, the project-generated traffic would not increase ambient noise levels by three dBA DNL or more. For this reason, the project-generated traffic noise would result in a less than significant impact. **(Less than Significant Impact)**

Cumulative Traffic

Cumulative traffic noise could also result from the traffic generated by the project when added to the traffic generated by other reasonably foreseeable projects. Cumulative traffic conditions were reviewed to determine if the proposed project would make a cumulatively considerable contribution to significant traffic noise increases expected in the area. A significant cumulative traffic noise increase would occur if two criteria are met: 1) if the cumulative traffic noise level increase was three dBA DNL or greater for future levels exceeding 60 dBA DNL or was five dBA DNL or greater for future levels at or below 60 dBA DNL; and 2) if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan. Cumulative traffic noise levels were calculated to increase by less than two dBA DNL in the project vicinity. For these reasons, the cumulative traffic noise impact would be less than significant. **(Less than Significant Cumulative Impact)**

Impact NOI-2:	The project would not result in generation of excessive groundborne vibration or groundborne noise levels. (Less than Significant Impact with Mitigation Incorporated)
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Construction activities associated with the project may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. Construction activities would include site demolition, preparation work, foundation work, and new building framing and finishing. The proposed project is not expected to require pile driving, which can cause excessive vibration.

As discussed in Section 4.13 Cultural Resources, no historical buildings have been identified in proximity to the project site. The project-specific Noise and Vibration Assessment used two groundborne vibration levels to determine the threshold of significance at which buildings in the project vicinity would have the potential to be subject to a significant vibration impact. These thresholds were groundborne vibration levels in excess of 0.5 in/sec PPV for surrounding commercial/industrial structures and 0.3 in/sec PPV for surrounding residential buildings. Table 4.13-5 shows the estimated vibration levels at nearby structures resulting from operation of construction equipment at the project site.

Table 4.13-5: Vibration Source Levels for Construction Equipment						
Equipment		PPV at 25 ft. (in/sec)	Estimated Vibration Levels at Structures Surrounding the Project Site, in/sec PPV			
			Commercial South (10 feet)	Residence East (60 feet)	Church West (95 feet)	School West (120 feet)
Clam shovel drop		0.202	0.553	0.077	0.047	0.036
Hydromill (slurry wall)	in soil	0.008	0.003	0.002	0.001	0.003
	in rock	0.017	0.006	0.004	0.003	0.005
Vibratory Roller		0.210	0.575	0.080	0.048	0.037
Hoe Ram		0.089	0.244	0.034	0.020	0.016
Large bulldozer		0.089	0.244	0.034	0.020	0.016
Caisson drilling		0.089	0.244	0.034	0.020	0.016
Loaded trucks		0.076	0.208	0.029	0.018	0.014
Jackhammer		0.035	0.096	0.013	0.008	0.006
Small bulldozer		0.003	0.008	0.001	0.001	0.001
Small Vibratory Roller (CAT CP433E 8-ton vibratory compactor)		0.087	0.238	0.033	0.020	0.015
Pavement Grinder		0.089	0.244	0.034	0.020	0.016
Bolded = significant impact						

As shown in Table 4.13-5, operation of heavy equipment during the construction process would result in vibration levels of up to 0.575 in/sec PPV for the commercial uses to the south of the project site. This would exceed the 0.5 in/sec PPV threshold and would have the potential to result in cosmetic damage, which would be a significant impact. To reduced potential vibration impacts resulting from construction activities, the City requires implementation of the following City standard condition of approval.

City Standard Condition of Approval:

COA NOI-2.1: Vibration Best Management Practices Construction Measures:

- Avoid impact pile driving and drill piles instead where possible. Drilled piles cause lower vibration levels where geological conditions permit their use.
- Avoid using vibration rollers and tampers near sensitive areas.
- In areas where project construction is anticipated to include vibration generating activities, vibration studies shall be conducted to determine the

areas of impact and to present appropriate mitigation measures that may include the following:

- Identification of sites that would be exposed to project vibration compaction activities and could result in vibration impacts to structures;
- Develop a vibration monitoring and contingency plan;
- Construction contingency plan; and
- Conduct post-survey on structures where either monitoring has indicated high levels or complaints of damage have been made.

In compliance with the above City standard condition of approval, a vibration study was conducted, and the following mitigation measure is required.

Mitigation Measure:

MM NOI-2.1: The following measures shall be implemented during construction to reduce vibration levels to 0.5 in/sec PPV or less at adjacent commercial/industrial buildings south of the site.

- Place operating equipment on the construction site as far as possible from vibration-sensitive receptors.
- Use smaller vibratory rolling equipment, for example the Caterpillar model CP433E vibratory compactor, within 15 feet of the adjacent commercial/industrial buildings south of the site to reduce vibration levels to 0.5 in/sec PPV or less.
- Select demolition methods not involving impact tools.
- Avoid dropping heavy equipment, such as a clam shovel drop, within 15 feet of the adjacent commercial/industrial buildings south of the site, and use alternative methods for breaking up existing pavement, such as a pavement grinder.
- Designate a person responsible for registering and investigating claims of excessive vibration. The contact information of such person shall be clearly posted on the construction site.

With implementation of City standard condition of approval COA NOI-2.1 and mitigation measure MM NOI-2.1, impacts related to groundborne vibration at adjacent structures would be reduced to a less than significant level by avoiding the use of high vibration impact equipment near sensitive receptors, using lower vibration impact construction methods and equipment, and designating a person on the construction site to respond to and address claims of excessive vibration. **(Less than Significant Impact with Mitigation Incorporated)**

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 nearest airport to the project site is Moffett Federal Airfield, which is approximately 1.2 miles northeast of the site. While aircraft flyovers from Moffett Federal Airfield would at times be audible at the outdoor use areas on the project site, the site is outside of the Airfield's 65 dBA CNEL noise contour area. Therefore, the project would not expose people residing or working in the project area to excessive noise levels. **(Less than Significant Impact)**

4.13.3 Non-CEQA Effects

Per *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 has policies (including General Plan Policies NOI 1.2, NOI 1.3, NOI 1.4, NOI 1.5, and NOI 1.6 identified in Section 4.13.1.2 Regulatory Framework) that address existing noise conditions affecting a proposed project.

Future Exterior Noise Environment

The proposed residential building would face Terra Bella Avenue. The primary outdoor use areas would be a courtyard located on the third story on the south side of the building, enclosed by three residential levels on the north, east, and west sides, and the pedestrian plaza area on Terra Bella Avenue. The acoustical shielding provided by the building would reduce the noise level in the courtyard and pedestrian plaza to 51 dBA DNL and 64 dBA DNL, respectively, which is below the City's maximum acceptable outdoor noise exposure level for multiple-family residential areas of 65 dBA DNL.

The worst-case noise exposure for the storage facility buildings would remain at 75 dBA DNL, with Building 1 being partially shielded by an elevated ramp that reduces noise levels to 72 dBA at some portions of the building. The noise exposure at the storage facility manager's apartment unit would remain at 72 dBA DNL. No outdoor-use areas are planned around the storage buildings.

Future Interior Noise Environment

Residential units along the northeastern façade of the residential building nearest to US 101 and the manager's apartment unit in Storage Building 1 would be exposed to exterior noise levels as high as 72 dBA DNL. General Plan Policy NOI 1.2 requires that indoor noise levels for residences not exceed 45 dBA DNL. To meet the indoor noise level standard would require at least 27 decibels of attenuation to meet the required indoor level of 45 dBA DNL.

The project would be required to implement the following City standard condition of approval.

City Standard Condition of Approval:

COA NOI-4.1: The project would implement the following measures.

- **Interior Noise Levels** - Construction drawings must confirm that measures have been taken to achieve an interior noise level of 45 dB(A) L_{dn} that shall be reviewed and approved by a qualified acoustical consultant prior to building permit submittal.
- **Site Specific Building Acoustical Analysis** - A qualified acoustical consultant shall review final site plans, building elevations, and floor plans prior to construction to calculate expected interior noise levels as required by State noise regulations. Project-specific acoustical analyses are required by the California Building Code to confirm that the design results in interior noise levels reduced to 45 dB(A)DNL or lower. The specific determination of what noise insulation treatments are necessary shall be completed on a unit-by-unit basis. Results of the analysis, including the description of the necessary noise control treatments, shall be submitted to the City along with the building plans and approved prior to issuance of a building permit. Building sound insulation requirements shall include the provision of forced-air mechanical ventilation for all residential units as recommended by the qualified acoustical consultant, so that windows can be kept closed at the occupant's discretion to control noise. Special building techniques (e.g., sound-rated windows and building facade treatments) shall be implemented as recommended by the qualified acoustical consultant to maintain interior noise levels at or below acceptable levels. These treatments shall include, but are not limited to, sound-rated windows and doors, sound-rated wall construction, acoustical caulking, protected ventilation openings, etc.

The site-specific noise assessment conducted for the project found the proposed buildings, with standard construction and incorporation of adequate forced-air mechanical ventilation, can be feasibly designed to reduce noise levels below the 45 dBA DNL threshold for the residential units in the residential building and manager's apartment unit in Storage Building 1.

The performance method enforced in the CALGreen Code requires that interior noise levels for non-residential use be maintained at 50 dBA $L_{eq(1-hr)}$ or less during hours of operation. The proposed storage facility buildings would be exposed to exterior noise levels between 72 and 75 dBA DNL along US 101. The worst-case hourly L_{eq} would be 73 dBA at this location. Standard construction materials for commercial uses would provide approximately 25 dBA of noise reduction in interior spaces and the inclusion of adequate forced-air mechanical ventilation systems would provide an additional five dBA reduction which would satisfy the daytime threshold of 50 dBA $L_{eq(1-hr)}$.

Implementation of the above City standard condition of approval would ensure that interior noise levels are reduced to acceptable levels by utilizing specific design measures and construction materials.

4.14 POPULATION AND HOUSING

4.14.1 Environmental Setting

4.14.1.1 *Regulatory Framework*

State

Housing-Element Law

State requirements mandating that housing be included as an element of each jurisdiction's general plan is known as housing-element law. The Regional Housing Need Allocation (RHNA) is the state-mandated process to identify the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element. California housing-element law requires cities to: 1) zone adequate lands to accommodate its RHNA; 2) produce an inventory of sites that can accommodate its share of the RHNA; 3) identify governmental and non-governmental constraints to residential development; 4) develop strategies and a work plan to mitigate or eliminate those constraints; and 5) adopt a housing element and update it on a regular basis.⁷⁴ The City of Mountain View Housing Element and related land use policies were last updated in 2014, the City is currently in the process of updating their Housing Element for 2023 to 2031.

Regional and Local

Plan Bay Area 2050

Plan Bay Area 2050 is a long-range plan for the nine-county San Francisco Bay Area that provides strategies that increase the availability of affordable housing, support a more equitable and efficient economy, improve the transportation network, and enhance the region's environmental resilience. Plan Bay Area 2050 promotes the development of a variety of housing types and densities within identified Priority Development Areas (PDAs). PDAs are areas generally near existing job centers or frequent transit that are locally identified for housing and job growth.⁷⁵

ABAG allocates regional housing needs to each city and county within the San Francisco Bay Area, based on statewide goals. These allocations are designed to lay the foundation for Plan Bay Area 2050's long-term envisioned growth pattern for the region. ABAG also develops a series of forecasts and models to project the growth of population, housing units, and jobs in the Bay Area. ABAG, MTC, and local jurisdiction planning staff created the Forecasting and Modeling Report, which is a technical overview of the of the growth forecasts and land use models upon which Plan Bay Area 2050 is based.

⁷⁴ California Department of Housing and Community Development. "Regional Housing Needs Allocation and Housing Elements." Accessed July 5, 2022. <http://hcd.ca.gov/community-development/housing-element/index.shtml>.

⁷⁵ Association of Bay Area Governments and Metropolitan Transportation Commission. *Plan Bay Area 2050*. October 21, 2021. Page 20.

4.14.1.2 Existing Conditions

As of January 2022, the City of Mountain View had an approximate population of 83,864 with an average of 2.35 persons per household.⁷⁶ The City's current General Plan Housing Element projects the City's 2040 population and jobs to be 134,000 and 133,000, respectively.⁷⁷ As described above, the City is currently updating its General Plan Housing Element for the upcoming 2023-2031 cycle, and if adopted, the projected 2040 population and jobs would be 142,200 and 133,000, respectively.⁷⁸ The project site is currently developed with one uninhabitable single-story residence and 77,418 square feet of commercial space. The surface parking area adjacent to the single-story residence is currently being used as a safe parking lot. The safe parking lot is estimated to be closed by June 2023.

4.14.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)			

A project can induce substantial population growth by proposing new housing beyond projected or planned development levels, generating demand for housing as a result of new businesses, extending roads or other infrastructure to previously undeveloped areas, or removing obstacles to population growth (e.g., expanding capacity of a wastewater treatment plant beyond that necessary to serve planned growth).

The project site currently has a General Plan designation of General Industrial, which does not allow residential development and, therefore, was not projected to accommodate any population or housing growth at the buildout of the General Plan. The proposed project would construct a 108-unit residential building, and potentially an additional unit for the storage facility manager in Building 1 of the proposed storage facility, which would result in approximately 256 new residents more than what was

⁷⁶ California Department of Finance. "E-5 Population and Housing Estimates for Cities, Counties, and the State, 2020-2022." May 2022. Accessed August 24, 2022. <https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2022/>.

⁷⁷ City of Mountain View. *City of Mountain View Housing Element Update*. July 2022. Table 3-2.

⁷⁸ City of Mountain View. *City of Mountain View Housing Element Update*. July 2022. Table 3-2.

assumed in the 2030 General Plan buildout (approximately 0.2 percent more than assumed from the General Plan buildout).^{79,80} Although the project would result in an incremental increase in population beyond what was anticipated in the General Plan, the 0.2 percent increase in population would not be a substantial increase in unplanned population.

As discussed in Section 4.17 Transportation and Section 4.19 Utilities and Service Systems, the project would be adequately served by existing infrastructure and would not extend roads or other infrastructure. For these reasons, the project would not directly or indirectly induce substantial unplanned growth in the area. **(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. (Less than Significant Impact)
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As discussed in Section 4.14.1.2, there are no housing units or habitable residences on-site. There is a safe parking lot located on a portion of the project site for individuals who sleep overnight in their personal vehicles and park in the surface lot overnight. The leasing contract for the safe parking lot is estimated to expire in June 2023, and individuals who frequent this overnight parking location can visit one of the other two safe parking locations within the City. Therefore, implementation of the project would not displace individuals from the project site that would necessitate the construction of housing elsewhere. **(Less than Significant Impact)**

⁷⁹ The number of residents was estimated assuming a citywide average 2.3 residents per household. California Department of Finance. *Table 2: E-5 City/County Population and Housing Estimates, for January 1, 2021-2022*. May 2022.

⁸⁰ The population estimate uses the City's average of 2.35 persons per household for all of the dwelling units, including the two manager's units.

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.

Local

City of Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts due to public services impacts. The following goals and policies are applicable to the proposed project.

Policy	Description
Public Safety	
PSA 1.1	Adequate staffing. Maintain adequate police and fire staffing, performance levels and facilities to serve the needs of the community.
PSA 2.7	Police service levels and facilities. Ensure Mountain View Police Department service levels and facilities meet demands from new growth and development.

Policy	Description
Parks, Open Space and Community Facilities	
POS 1.1	Additional parkland. Expand park and open space resources to meet current City standards for open acreage and population in each neighborhood.
POS 1.2	Recreation facilities in new residential developments. Require new development to provide park and recreation facilities.
MOB 10.4	Emergency response. Monitor emergency response times and where necessary consider appropriate measures to maintain emergency response time standards. Measures to ensure provisions of adequate response times may include the expanded use of emergency vehicle signal preemption, evacuation route modifications, or the construction of new facilities (e.g., fire stations).

City of Mountain View Code of Ordinances

Chapter 41 of the City Code contains a Park Land Dedication Ordinance, which sets requirements for park land dedication or in-lieu fees. The City requires developers to dedicate at least three acres of park land for each 1,000 persons who will live in a new housing project (owned or rented), or to pay an in-lieu fee that would be used to offset the increased demands on park facilities. The City also allows developers to propose, for City Council consideration, a POPA space within a residential development site for park land credit, reducing the land or in-lieu fee obligation generated by the development. Section 41.11 of the City Code exempts affordable housing units from being counted towards the total number of dwelling units used to calculate the park land dedication requirement.

4.15.1.2 Existing Conditions

Fire Protection Services

Fire protection in the Master Plan area is provided by the City of Mountain View Fire Department (MVFD), which serves a population of approximately 83,000 and an area of 12 square miles. The MVFD provides fire suppression, rescue response, hazard prevention and education, and disaster preparedness services. In fiscal year 2020/2021, out of 8,512 emergency calls made to the MVFD, 6,003 of the calls were for medical aid and 445 were for fire.⁸¹ The MVFD has an established response time of six minutes for “Medical Code Three” calls (i.e., those requiring expedited transport).⁸²

The City of Mountain View also participates in a mutual aid program with neighboring cities, including Palo Alto, Los Altos, and Sunnyvale. Through this program, one or more of the mutual aid cities would provide assistance to Mountain View in whatever capacity was needed.

Station Five is closest to the project site. Station Five is located at 2159 North Shoreline Boulevard, approximately one mile north of the project site. The MVFD reviews applications for new projects to ensure that they comply with the City’s current fire codes and standards.

⁸¹ Mountain View Fire Department. *Fire Department Annual Report, Fiscal Year 2020-21*. Accessed July 6, 2022. <https://www.mountainview.gov/depts/fire/about/report.asp>

⁸² City of Mountain View. *Draft 2030 General Plan and Greenhouse Gas Reduction Program Final Environmental Impact Report*. SCH #2011012069. September 2012. Page 477.

Police Protection Services

Police protection in the project area is provided by the City of Mountain View Police Department (MVPD). MVPD consists of authorized staff of 143 full-time, part-time, and limited-period personnel.⁸³ Officers patrolling the area are dispatched from police headquarters, located at 1000 Villa Street, approximately one mile southwest of the project site.

The MVPD has a goal to respond to Priority E and Priority 1 calls in less than four minutes at least 55 percent of the time. Priority E and Priority 1 calls are considered the highest priority calls and signal emergency dispatch from the MVPD. Priority E calls are of higher importance, because they are often associated with violent crime incidents.⁸⁴ MVPD has a mutual aid agreement with the surrounding jurisdictions, under which the other agencies would assist the MVPD in responding to calls when needed.

Schools

The project site is located within Mountain View Whisman School District (MVWSD) and Mountain View-Los Altos Union High School District (MVLASD). MVWSD serves grades kindergarten through eighth grade and MVLAS services high-school age students. Students in the project area attend Theuerkauf Elementary School located at 1625 San Luis Avenue (approximately 0.60-mile southwest of the project site), Crittenden Middle School located at 1701 Rock Street (approximately 0.68-miles northwest of the project site), and Mountain View High School located at 3535 Truman Avenue (approximately 3.3 miles south of the project site).

Table 4.15-1 shows the existing school capacities and recent enrollment data at Theuerkauf Elementary School, Crittenden Middle School, and Mountain View High School.

Table 4.15-1: School Enrollment and Capacity					
School	2018 to 2019 Enrollment¹	2019 to 2020 Enrollment¹	2020 to 2021 Enrollment¹	2021 to 2022 Enrollment¹	Existing Capacity^{2,3}
Theuerkauf Elementary School	355	333	301	331	673
Crittenden Middle School	707	647	598	532	1,008
Mountain View High School	2,062	2,183	2,257	2,316	1,546
¹ California Department of Education. "Data Quest." Accessed July 12, 2022. Available at: https://www.cde.ca.gov/ds/ad/dataquest.asp ² MVWSD. <i>Level I Developer Fee Study</i> . Appendix E. May 5, 2022. Accessed July 12, 2022. ³ Aguilar, Irene. Assistant to the Associate Superintendent-Business Services, Mountain View Los Altos High School District. Personal Communication. July 7, 2022.					

⁸³ Mountain View Police Department. *2021 Annual Report*. Accessed July 6, 2022.

<https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=37694>

⁸⁴ City of Mountain View. *Draft 2030 General Plan and Greenhouse Gas Reduction Program Final Environmental Impact Report*. SCH #2011012069. September 2012. Page 483 and 484.

Parks and Open Space

The City of Mountain View currently owns or manages approximately 993 acres of parks and open space facilities, including 22 urban parks and the Stevens Creek Trail. The urban parks are divided among 18 mini-parks, 13 neighborhood/school parks (under joint-use agreements with local school districts), five neighborhood parks not associated with school sites, two community parks, and one regional park (Shoreline at Mountain View).⁸⁵ The City also maintains 10 parks under joint-use agreements with local school districts.

The nearest public park to the project site is Vernon Park, located approximately 0.25-mile south of the site on San Vernon Avenue. The park includes children's play equipment, a basketball court, and walking paths. Other nearby park facilities include Stevenson Park approximately 0.60-mile southwest of the site and Charleston Park approximately 0.89-mile northwest of the site. Rengstorff Park, approximately 1.3 miles southwest of the project site, is one of two large community parks in the City. The park is 16.92 acres in size and includes the City's Community Center and a number of sports fields and other facilities.

Libraries

The Mountain View Public Library, located at 585 Franklin Street, is the City's only library. It is located approximately 1.35 miles southwest of the project site.

4.15.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5) Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

⁸⁵ City of Mountain View. *2014 Parks and Open Space Plan*. Accessed July 6, 2022.
<https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=14762>

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)
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The project site is in an area that is currently served by the MVFD. Compared to existing conditions, the addition of up to 109 residential units (which would generate approximately 256 new residents) and expansion of the storage facility would incrementally increase demand for fire protection services in the City. Station Five is the nearest fire station to the project site, and the site is less than 1.5 miles from three other MVFD fire stations. In addition, the project would be constructed to comply with current Fire Code standards as adopted by the City of Mountain View, and MVFD would review project plans to ensure to adequate fire safety and prevention measures on-site. Based on this discussion, the project would not result in the need to expand any existing or construct any new fire protection 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)
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As discussed in Impact PS-1, the project would result in an increase of up to 109 residential units and approximately 256 new residents. The project would also expand the existing storage facility. The addition of approximately 256 new residents and additional customers generated by the storage facility would result in an incremental increase in the demand for police protection services in Mountain View. The project site is located in an area that is currently served by the MVPD. In addition, the project would include nighttime security lighting, privately accessed control points, and surveillance cameras. These safety features are incorporated to minimize and deter the opportunity for criminal activity. The City's General Plan policies (PSA 1.1 and PSA 2.7) ensure that the City maintains adequate police staffing and performance levels while continually exploring ways to improve police effectiveness. Based on this discussion, the project would not result in the need to expand any existing or construct any new police protection facilities in the City. **(Less than Significant Impact)**

Impact PS-3:	<p>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.</p> <p>(Less than Significant Impact)</p>
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The project would develop up to 109 residential units (including two manager's units). Based on the most recently available student generation rates provided by MVWSD and MVLASD, the project would generate approximately 61 elementary and middle school students and 34 high school students.⁸⁶

As discussed in Section 4.15.1.2, both Theuerkauf Elementary School and Crittenden Middle School have existing capacity to accommodate project generated students based on current enrollment numbers. Therefore, the addition of 61 elementary and middle school students would not require the expansion of those schools or construction of any new school facilities. As of the end of the 2021 to 2022 school year, Mountain View High School is over capacity by 770 students.⁸⁷ The school currently utilizes portable classrooms in addition to permanent education facilities to accommodate the additional students. The construction of permanent classroom facilities is underway through Measure E bond program funding and has undergone separate environmental review. The construction of these additional facilities would result in an overall capacity of 2,379 students, which would be sufficient to accommodate the currently enrolled students in addition to the approximately 34 new students that would be generated by this project.⁸⁸

As required by state law (Government Code Section 65996), the project proponent shall pay the appropriate school impact fees to offset and mitigate the increased demands on school facilities caused by the project. Based on this, the project would result in a less than significant impact to school facilities. **(Less than Significant Impact)**

⁸⁶ Based on the following student generation rates: Elementary and middle school students per market-rate multi-family unit = 0.124 (0.555 per below market-rate unit) Source: Mountain View Whisman School District. *Level 1 Developer Fee Study*. May 5, 2022. Appendix E.

High school students per market-rate multi-family unit = 0.047 (0.312 per below market-rate unit) Source: Mountain View/Los Altos Union High School District. *Level 1 Developer Fee Study*. July 27, 2020. Table 1.

⁸⁷ Current enrollment at Mountain View High School is 2,316 students with a school capacity of 1,546 students resulting in an overcapacity of 770 students. Capacity Source: Aguilar, Irene. Assistant to the Associate Superintendent-Business Services, Mountain View/Los Altos Union High School District. Personal Communication. July 7, 2022.

⁸⁸ Mountain View/Los Altos Union High School District. *Draft Mitigated Negative Declaration - Mountain View High School Expansion Project (SCH Number 2011092006)*. November 2018. Page 10.

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)
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As discussed in Section 4.16.1.1, the City Code exempts affordable housing units from paying park land dedication or in-lieu fees. Since the project would provide 100-percent (excluding manager's units) affordable housing units, it would not be required to contribute the park land dedication fee that is typically required for market-rate residential developments in the City. The new residents generated by the proposed project would incrementally increase the use of existing recreational facilities in the project area. The residential portion of the proposed project would include approximately 10,300 square feet of common amenity space on the podium deck of the building which would help offset the increase in demand on parks and recreational facilities. The ground-floor of the residential building would also include landscaped seating areas and an entry plaza. The inclusion of landscaping areas, walking paths, lounge areas, and play equipment on-site would offset the project's demand on City park facilities. As such, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental 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)
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Implementation of the proposed project would contribute to an incremental increase in demand for other public facilities, such as libraries, because it would add new residents to the City. The single library in the City currently serves the existing population of 83,864, and the addition of the approximately 256 project residents would result in a potential increase in patrons of less than 0.3 percent. This incremental increase in demand would not require the construction or expansion of new library facilities. **(Less than Significant Impact)**

4.16 RECREATION

4.16.1 Environmental Setting

4.16.1.1 *Regulatory Framework*

State

Government Code Section 66477

The Quimby Act (included within Government Code Section 66477) requires local governments to set aside parkland and open space for recreational purposes. It provides provisions for the dedication of parkland and/or payment of fees in lieu of parkland dedication to help mitigate the impacts from new residential developments. The Quimby Act authorizes local governments to establish ordinances requiring developers of new residential subdivisions to dedicate parks, pay a fee in lieu of parkland dedication, or perform a combination of the two.

Local

Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts due to recreation impacts. The following goals and policies are applicable to the proposed project.

Policy	Description
Parks, Open Space and Community Facilities	
POS 1.1	Additional parkland. Expand park and open space resources to meet current City standards for open acreage and population in each neighborhood.
POS 1.2	Recreation facilities in new residential developments. Require new development to provide park and recreation facilities.
POS 2.6	Diverse park amenities. Design parks to address a range of activities for diverse populations.
POS 4.2	Park design. Implement high-quality park amenities and design.
POS 6.1	Citywide network of pathways. Develop a citywide network of pedestrian and bicycle pathways to connect neighborhoods, employment centers, open space resources and major destinations within the city.

City of Mountain View Code of Ordinances

Chapter 41 of the City Code contains a Park Land Dedication Ordinance, which sets requirements for park land dedication or in-lieu fees. The City requires developers to dedicate at least three acres of park land for each 1,000 persons who will live in a new housing project (owned or rented), or to pay an in-lieu fee that would be used to offset the increased demands on park facilities. The City also allows developers to propose, for City Council consideration, a POPA space within a residential development site for park land credit, reducing the land or in-lieu fee obligation generated by the development. Section 41.11 of the City Code exempts affordable housing units from being counted towards the total number of dwelling units used to calculate the park land dedication requirement.

4.16.1.2 Existing Conditions

As discussed under Section 5.14 Public Services, the City of Mountain View currently owns or manages approximately 993 acres of parks and open space facilities, including 22 urban parks and the Stevens Creek Trail. The urban parks are divided among 18 mini-parks, 13 neighborhood/school parks (under joint-use agreements with local school districts), five neighborhood parks not associated with school sites, two community parks, and one regional park (Shoreline at Mountain View).⁸⁹ The City also maintains 10 parks under joint-use agreements with local school districts.

The nearest public park to the project site is Vernon Park, located approximately 0.25-mile south of the site on San Vernon Avenue. The park includes children's play equipment, a basketball court, and walking paths. Other nearby park facilities include Stevenson Park approximately 0.60-mile southwest of the site and Charleston Park approximately 0.89-mile northwest of the site. The City's parkland total includes other recreational facilities such as the Rengstorff Park Aquatics Center, the Rengstorff Park tennis courts, the Shoreline Golf Link, and a skatepark. The nearest recreational facilities to the project site are located at Rengstorff Park, which is 1.3 miles southwest of the project site.

4.16.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<hr/> 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) <hr/>				

As discussed in Section 4.15, the proposed project would construct up to 109 residential units which would result in an increase in population that would use park facilities. To offset the increase in demand on parks and recreational facilities, the residential portion of the proposed project includes approximately 10,300 square feet of common amenity space on the podium deck of the building. This third-floor courtyard space would include landscaping areas, lounge areas, and play equipment. The ground-floor of the residential building would also include landscaped seating areas and an entry plaza.

Since the project would be providing 100-percent (excluding manager's units) affordable housing units, it would not be required to contribute the park land dedication fee that is typically required for

⁸⁹ City of Mountain View. *2014 Parks and Open Space Plan*. Accessed July 6, 2022.
<https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=14762>

market-rate residential developments in the City. The inclusion of landscaping areas, walking paths, lounge areas, and play equipment on-site would offset the project's demand on City park facilities. As such, the project would not result in or accelerate the substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities. **(Less than Significant Impact)**

Impact REC-2:	The project does 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)
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The proposed project includes approximately 10,300 square feet of outdoor, common amenity space on the podium deck of the building. The common amenity space would include landscaping, lounge areas, play equipment, gardens, and gathering space. The construction impacts of the on-site common amenity space are evaluated throughout this Initial Study and found not to result in significant impacts with the implementation of identified conditions of approval (such as COAs, AIR-1.1, AIR-1.2, BIO-1.1, BIO-5.1, COA CUL-2.1, GEO-1.1, GEO-6.1, HAZ-2.1, HAZ-2.2, HYD-1.1, HYD-1.2, NOI-1.1, and NOI-2.1) and mitigation measures (AIR-1.1, CUL-2.1, and NOI-2.1). As discussed under Impact REC-1, the inclusion of on-site common space would offset the project's incremental increase in demand for park facilities. For these reasons, the project would not require the expansion of existing recreational facilities. **(Less than Significant Impact)**

4.17 TRANSPORTATION

The following is based, in part, on a Transportation Analysis (TA) prepared by Hexagon Transportation Consultants, Inc. dated November 22, 2022, and a TDM Plan prepared by Nelson Nygaard prepared in September 2022. This report is attached as Appendix K to this Initial Study.

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 the replacement of automobile delay—described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion—with VMT as the recommended metric for determining the significance of transportation impacts. The Governor’s Office of Planning and Research (OPR) approved the CEQA Guidelines implementing SB 743 on December 28, 2018. Local jurisdictions are required to implement a VMT policy by July 1, 2020.

SB 743 did not authorize OPR to set specific VMT impact thresholds, but it did direct OPR to develop guidelines for jurisdictions to utilize. CEQA Guidelines Section 15064.3(b)(1) describes factors that might indicate whether a development project’s VMT may be significant. Notably, projects located within 0.50 mile of transit should be considered to have a less than significant transportation impact based on OPR guidance.

Regional and Local

Congestion Management Program

VTA oversees the Congestion Management Program (CMP), which is aimed at reducing regional traffic congestion. The relevant state legislation requires that urbanized counties in California prepare a CMP in order to obtain each county’s share of gas tax revenues. State legislation requires that each CMP define traffic LOS standards, transit service standards, a trip reduction and transportation demand management plan, a land use impact analysis program, and a capital improvement element. VTA has

review responsibility for proposed development projects that are expected to affect CMP-designated intersections.

City of Mountain View 2030 General Plan

The following transportation-related policies from the General Plan are applicable to the project.

Policy	Description
Land Use and Design	
LUD 3.1	Land use and transportation. Focus higher land use intensities and densities within 0.5 mile of public transit service and along major commute corridors.
LUD 8.5	Pedestrian and bicycle amenities. Encourage attractive pedestrian and bicycle amenities in new and existing developments, and ensure that roadway improvements address the needs of pedestrians and bicyclists.
LUD 9.4	Enhanced pedestrian activity. Ensure commercial development enhances pedestrian activity through these strategies: <ul style="list-style-type: none">• Encourage the first level of the building to occupy a majority of the lot's frontage, with exceptions for vehicle and pedestrian access• Allow for the development of plazas and dining areas• Encourage the majority of a building's ground floor frontage to provide visibility into the building by incorporating windows and doors• Require that ground floor uses be primarily pedestrian-oriented• Ensure pedestrian safety and access when designing parking areas and drive-through operations
Minimize driveways	
LUD 17.2	Transportation Demand Management strategies. Require development to include and implement Transportation Demand Management strategies.
Mobility	
MOB 1.5	Public accessibility. Provide traffic calming, especially in neighborhoods and around schools, parks, and gathering places.
MOB 1.6	Traffic calming. Provide traffic calming, especially in neighborhoods and around schools, parks, and gathering places.
MOB 8.3	Multi-modal transportation monitoring. Monitor the effectiveness of policies to reduce vehicle miles traveled (VMT) per service population by establishing transportation mode share targets and periodically comparing travel survey data to established targets.

2030 General Plan Action Item MOB 8.1.3

General Plan Action Item MOB 8.1.3 established interim Level of Service (LOS) standards for the City to use based on the LOS standards from the 1992 General Plan. These standards include a target peak hour LOS policy of LOS D for all intersections and roadway segments, except for intersections and street segments within the Downtown Core and San Antonio areas and intersections and street segments on CMP designated roadways in Mountain View which have a target of LOS E.

Mountain View VMT Policy

The Mountain View City Council adopted a Vehicle Miles Traveled Policy on June 30, 2020, which replaces LOS with VMT as the metric for determining a significant transportation impact under CEQA consistent with SB 743. The City's VMT policy includes screening criteria for projects which are presumed to have a less than significant transportation impact. Specifically, the City's VMT Policy states that projects would have a less than significant VMT impact and do not require further project-specific VMT analysis if the project meets the screening criteria for small project screening, map-based screening, transit screening, or affordable housing screening. Projects determined by the City to be local-serving retail would also be exempt from being required to conduct a detailed CEQA VMT analysis.

Mountain View Comprehensive Modal Plan

The City identifies the level of comfort for pedestrians on any given roadway using the Pedestrian Quality of Service (PQOS) metric. The Mountain View Comprehensive Modal Plan (AccessMV) identifies the continuity or gaps in the City's pedestrian facilities and identifies PQOS scoring ranging from 1 to 5. A higher PQOS score indicates a low quality of service. The PQOS metric covers the following factors:

- Proximity to a variety of destinations and amenities
- Street connectivity and directness of routes to destinations
- Presence of a continuous network of pedestrian facilities
- Motor vehicle traffic speed; and
- Street width and intersection conditions

The City also identifies the perceived comfort and safety of existing roads and bikeway facilities from the perspective of cyclists using the Bicycle Level of Traffic Stress (BLTS) metric. AccessMV identifies the BLTS scoring ranging from 1 to 4. A higher BLTS score indicates that the bikeway is comfortable for a more confident adult. A BLTS score of 1 is comfortable for all ages and abilities, a BLTS score of 2 is comfortable for an average adult, while a BLTS score of 4 indicates that the streets are comfortable only for highly confident riders. The metric (ranging from 1 to 4) in the AccessMV document covers the following factors:

- Number of through lanes or street width
- Posted speed limit or prevailing vehicle speed
- Presence and type of bicycle facilities
- Presence of traffic signals

Shoreline Boulevard Transportation Corridor Study

In November 2014, the Mountain View City Council approved the Shoreline Boulevard Transportation Corridor Study which determined the feasibility of, and developed a conceptual design for, integrated transit, bicycle, and pedestrian facilities in the Shoreline Boulevard Corridor from the Downtown Transit Center to North Bayshore. The Corridor Study provided a phasing program for the transportation improvements to achieve the North Bayshore commute mode-share goals and identified recommended Shoreline Boulevard bus lane and utility improvements.

2015 Bicycle Transportation Plan

The 2015 Bicycle Transportation Plan (BTP) provides a vision, strategies, and actions for improving and encouraging bicycle travel in and through the City. The 2015 BTP also expands on the City's 2030 General Plan mobility goals by more specifically addressing bicycle-related needs of the community. The 2015 BTP proposes Class IV cycle tracks along Shoreline Boulevard and Moffett Boulevard and a Class II full time bike lane along Middlefield Road.

4.17.1.2 *Existing Conditions*

Roadway Network

Regional access to the project site is provided by US 101 and State Route (SR) 85. Local access to the project site is provided via Shoreline Boulevard, Middlefield Road, Moffett Boulevard, Terra Bella Avenue, San Rafael Avenue, and Linda Vista Avenue. These roadways are briefly described below.

- *US 101* is an eight-lane highway wide with three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction in the vicinity of the project site. US 101 provides access to the study area via a full interchange at Shoreline Boulevard.
- *SR 85* is a freeway that begins at US 101, east of North Shoreline Boulevard, extends south towards San José, and terminates at US 101 east of the Silicon Valley Boulevard and Bernal Road interchange. SR 85 is six lanes wide (two mixed-flow lanes and one HOV lane in each direction) in the vicinity of the project site. SR 85 provides access to the project site via an interchange at Moffett Boulevard.
- *Shoreline Boulevard* is a north-south, four-lane arterial road⁹⁰ in the vicinity of the project site. It begins near Shoreline Lake in the north and extends to El Camino Real in the south, where it becomes Miramonte Avenue. Shoreline Boulevard has left-turn pockets at intersections. Access to the project site from Shoreline Boulevard is provided via Terra Bella Avenue.
- *Middlefield Road* is an east-west, four-lane arterial road that runs parallel to US 101. It begins at the intersection of Central Expressway in Mountain View and traverses westward through Redwood City. Middlefield Road has landscaped medians with left-turn pockets at signalized intersections. Access to the project site from Middlefield Road is via Shoreline Boulevard and Linda Vista Avenue.
- *Moffett Boulevard* is a north-south, four-lane arterial that begins from R T Jones Road in the north and extends to Central Expressway in the south, where it becomes Castro Street. Moffett Boulevard has landscaped medians with left-turn pockets at signalized intersections. Access to the project site from Moffett Boulevard is via Middlefield Road.
- *Terra Bella Avenue* is a two-lane east-west roadway that is adjacent to the southern border of the project site. Terra Bella Avenue has on-street parking on both sides of the street.

⁹⁰ Arterial road is a high-capacity road that sits below freeways on the road hierarchy in terms of traffic flow and speed. Source: U.S. Department of Transportation, Federal Highway Administration. *Road Function Classification*. November 2000. https://safety.fhwa.dot.gov/speedmgt/data_facts/docs/rd_func_class_1_42.pdf

- *San Rafael Avenue* is a two-lane dead end north-south roadway with on-street parking on both sides of the street. A driveway on San Rafael Avenue provides access to the existing, dilapidated, uninhabitable single-family residence.
- *Linda Vista Avenue* is a two-lane dead end, north-south roadway with on-street parking on both sides of the street. A driveway at the end of Linda Vista Avenue provides emergency access to the existing storage facility buildings.

Existing Transit Facilities

Existing transit services in the area are provided by the Valley Transportation Authority (VTA) and the Mountain View Transportation Management Association (MVTMA). The closest bus stops serviced by the VTA and the MVTMA are located along Shoreline Boulevard, approximately 1,100 feet west of the project site. The VTA operates bus and light rail transit services in Santa Clara County, and the TMA provides free MVgo shuttle service between the Mountain View Transit Center (MVTC) and corporate campuses in the North Bayshore and East Whisman areas. The VTA bus route and MVgo shuttle route in the project vicinity and the bus/shuttle stops near the project site are shown on Figure 4.17-1.

VTA Bus Service

VTA Local Route 40 serves the project vicinity with bus stops in each direction on Shoreline Boulevard. Local Route 40 runs between Foothill College and the MVTC. The MVTC provides connections to Caltrain, VTA light rail transit, several VTA bus routes (21, 40, and 52), MV community shuttle, and MVgo shuttle routes.

Mountain View Transportation Management Association Shuttles

The MVTMA operates the MVgo shuttle system. This shuttle system is provided through the collection of TMA member dues. MVgo operates four shuttle routes that provide service to employment areas from the MVTC. Three routes serve the North Bayshore area, and one route serves the East Whisman area. The shuttles are timed to meet Caltrain arrivals during the a.m. and departures during p.m. commute periods. MVgo shuttle Route B provides service to the project area, with one bus stop within the vicinity of the project site.



Source: Hexagon Transportation Consultants, Inc., August 26, 2022.

EXISTING TRANSIT FACILITIES

FIGURE 4.17-1

Existing Bicycle Facilities

The bicycle facilities proximate to the project site (see Figure 4.17-2) consist of Class II bikeways, which are striped bike lanes on roadways that are marked by signage and pavement markings. Striped bike lanes are present on the following roadway segments:

- Shoreline Boulevard, between Charleston Road and Central Expressway; and
- Middlefield Road (part-time, open during the daytime and peak hours), within Mountain View city limits

Other nearby bicycle facilities include the Stevens Creek Trail, which is a multi-use trail system that runs through the City of Mountain View and is shared between pedestrians and bicyclists and is separated from motor vehicle traffic. Within the City, Stevens Creek trail is a five-mile continuous Class I bikeway from Shoreline at Mountain View Park in the north to Dale Avenue and Heatherstone Way in the south. This trail system can be accessed via a trailhead on Middlefield Road, approximately one-mile walking distance southeast of the project site.

Based on the BLTS map, the following streets in the project vicinity have a BLTS greater than 2, which is undesirable:

- Shoreline Boulevard (BLTS 3)
- Middlefield Road (BLTS 3)
- Moffett Boulevard (BLTS 4)

Existing Pedestrian Facilities

Pedestrian facilities near the project site consist of sidewalks along all surrounding streets, including along Terra Bella Avenue, Linda Vista Avenue, and San Rafael Avenue. Crosswalks and pedestrian signal heads are present at the following intersections:

- North, west, and east legs of the Shoreline Boulevard and US 101 Northbound Off-Ramp and La Avenida Street intersection;
- West leg of the Shoreline Boulevard and US 101 Southbound Ramps intersection; and
- All legs of the Shoreline Boulevard and Terra Bella Avenue intersection.

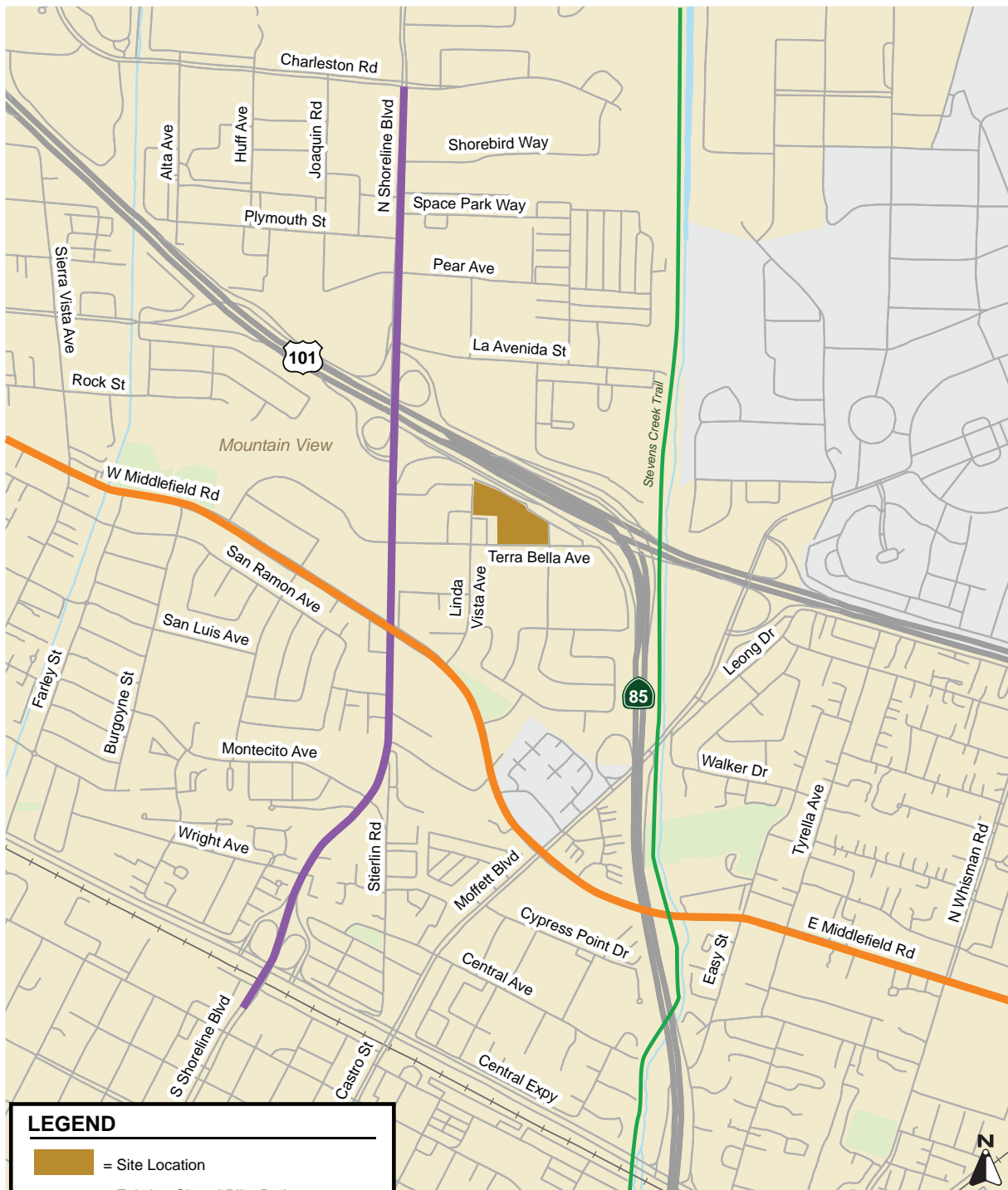
In addition, crosswalks are provided at all legs of the Linda Vista Avenue and Terra Bella Avenue intersection and at the north leg of the Linda Vista Avenue and Middlefield Road intersection. Americans with Disabilities Act (ADA) compliant curb ramps are located at most intersections within the project vicinity, with the exception of the northwest, southwest, and southeast corners of the Shoreline Boulevard and Terra Bella Avenue intersection.

Pedestrian generators in the project vicinity include office buildings and bus stops along Shoreline Boulevard and Middlefield Road.

Based on the PQOS map, the following streets in the project vicinity have a PQOS greater than 2:

- Terra Bella Avenue (PQOS 3)
- Linda Vista Avenue (north of San Ardo Way) (PQOS 3)

- Linda Vista Avenue (south of San Ardo Way (PQOS 5)
- San Rafael Avenue (PQOS 4)
- Middlefield Road (between Shoreline Boulevard and Moffett Boulevard) (PQOS 4&5)
- Shoreline Boulevard (north of Middlefield Road (PQOS 5)



Source: Hexagon Transportation Consultants, Inc., August 26, 2022.

EXISTING BICYCLE FACILITIES

FIGURE 4.17-2

4.17.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
1) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)				

Roadway Network

2030 General Plan Action Item MOB 8.1.3

Compared to existing conditions, the project is estimated to generate 996 net new daily vehicle trips, with 68 trips during the AM peak hour, and 98 trips during the PM peak hour. While a project's effect on automobile delay is no longer considered an impact under CEQA, local jurisdictions have roadway LOS standards. Per 2030 General Plan Action Item MOB 8.1.3, the City's interim standard for signalized intersections is LOS D. The City does not have an adopted level of service standard for unsignalized intersections; however, the City strives to maintain LOS D for unsignalized intersections. As discussed in more detail in Appendix K, the results of the LOS analysis conducted for the project show that one signalized intersection (Shoreline Boulevard and US 101 northbound offramp/La Avenida Street) would have a substandard LOS F with or without the project being constructed, and one unsignalized intersection (Linda Vista Avenue and Middlefield Road) would have its LOS degrade from LOS D to LOS E during the PM peak hour under project conditions. Although the signalized intersection (Shoreline Boulevard and US 101 northbound offramp/La Avenida Street) would have a substandard LOS in the future, the increase in average critical delay would not be greater than four seconds, therefore, no adverse effect would be caused by the project. In addition, the residential development proposes to implement a TDM plan, which is estimated to reduce the residential vehicle trips by 15 percent. With the implementation of a TDM plan, the PM peak hour would no longer degrade to LOS E and would not have an adverse effect on traffic operations at this intersection. Furthermore, the unsignalized intersection does not have volume of at least 100 vehicles per hour, it does not warrant installation of a traffic signal. The project is consistent with General Plan Action Item MOB 8.1.3. **(Less than Significant Impact)**

Transit Facilities

As described in Section 4.17.1.2 Existing Conditions, the project site is currently served by transit routes with existing bus stops proximate to the site that facilitate travel to the MVTC (which provides access to Caltrain and VTA light rail service) and nearby employment centers. The project-specific TA estimated that the addition of project residents could result in a slight increase in transit use that would equate to approximately two to three new transit riders during AM and PM peak hours. That projected increase would be minimal and existing transit services would be able to accommodate the additional riders. The City identified Shoreline Boulevard bus lane and utility improvements in the Shoreline Boulevard Transportation Corridor Study that would construct several improvements at the intersection of Terra Bella Avenue and North Shoreline Boulevard, including four new bus stops and dedicated bus lanes in with direction. Implementation of the project would not interfere with these planned improvements. Based on this discussion, the project would not conflict with a program, plan, ordinance or policy addressing transit. **(Less than Significant Impact)**

Bicycle Facilities

As described in Section 4.17.1.2 Existing Conditions, existing bicycle facilities near the project site are limited to Class II striped bike lanes on North Shoreline Boulevard and lanes that are available part-time on Middlefield Road. Shoreline Boulevard, Middlefield Road, and Moffett Boulevard have a BLTS score of 3 or more, and the project would add bicyclist demand to these roadways. The City's 2015 BTP proposes Class IV cycle tracks along Shoreline Boulevard and Moffett Boulevard and a Class II full time bike lane along Middlefield Road. In addition, the City's Shoreline Boulevard Bus Lane and Utility Improvements project, currently in implementation, would upgrade the bicycle facilities along Shoreline Boulevard, between US 101 and Montecito Avenue with protected bike lanes. These planned improvements by the City of Mountain View would increase bicyclist comfort and safety while improving the BLTS and are consistent with the guidelines described in the City's Comprehensive Modal Plan. The North Bayshore Precise Plan also identified a new Bicycle and Pedestrian Overcrossing that would provide a dedicated overcrossing to bicyclists and pedestrians. Implementation of the project would not interfere with any of these identified improvements or result in the need for additional improvements.

The residential portion of the project proposes a total of 108 long-term bicycle parking spaces located in a secure storage room on the ground floor of the residential building and 12 short-term bicycle parking spaces on racks outside of the building adjacent to Terra Bella Avenue. The storage facility portion of the project would provide short-term bicycle parking spaces on racks outside of the rental office. The amount of provided bicycle parking spaces would comply with City requirements. For these reasons, the project would not conflict with any programs, plans, ordinances, or policies addressing bicycle facilities. **(Less than Significant Impact)**

Pedestrian Facilities

As discussed in Section 4.17.1.2 Existing Conditions, pedestrian facilities in immediate site vicinity include continuous sidewalks on both sides of all surrounding streets, including Terra Bella Avenue, Linda Vista Avenue, and San Rafael Avenue. In addition, there are crosswalks and pedestrian signal heads at all signalized intersections surrounding the project site, with the exception of several corners of the Shoreline Boulevard and Terra Bella Avenue intersection. Based on the City's PQOS map, Terra Bella Avenue, San Rafael Avenue, Linda Vista Avenue, and Middlefield Road and Shoreline Boulevard have a PQOS score of 3 or more, and the project would add pedestrian demand to these roadways. However, as discussed in Section 3.0, the project would reconstruct and widen the project frontages on Terra Bella Avenue, Linda Vista Avenue, and San Rafael Avenue to include planter strips and new streetlights to create a more walkable pedestrian space adjacent to the project site. Crosswalks would be striped at all four sides of the intersection of Terra Bella Avenue and San Rafael Avenue, and curb ramps would be reconstructed at the intersection as necessary. These improvements would increase pedestrian comfort and safety while improving the pedestrian quality of service and be consistent with the City's Comprehensive Modal Plan and General Policy LUD 8.5 by ensuring that roadway improvements address the needs of pedestrians. For these reasons, the project would not conflict with a program, plan, ordinance, or policy addressing the pedestrian circulation system. **(Less than Significant Impact)**

Impact TRN-2:	The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). (Less than Significant Impact)
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As discussed in Section 4.17.1.1 and Impact TRN-1, the City's VMT policy includes screening criteria for projects which are presumed to have a less than significant transportation impact. The project would construct 108, 100 percent affordable residential units (excluding manager's units) and two storage facility buildings totaling of 408,964 square feet. Under the City's VMT policy, projects with 100 percent affordable housing are presumed to result in less than significant transportation impacts. Therefore, the residential portion of the project would not be required to complete a detailed VMT analysis.

The City's VMT policy does not provide any specific screening criteria for storage facility projects; however, the City has a methodology for evaluating the VMT of this type of use, which assumes that demand for storage facilities is constant, and the addition of a new (or redeveloping) self-storage site would redistribute existing personal storage-based trips within the City instead of creating new trips. If the project trip length is less than the average personal storage trip length for this type of use, then the project is considered to have a less than significant VMT impact.

There are 13 personal storage facilities in the City and, are on average, 2.1 miles to the City's geographic center. The proposed storage facility would be approximately 1.4 miles to the City's geographic center. Therefore, it is concluded that the proposed project would reduce the average distance traveled for this type of development and would result in a less than significant VMT impact.

Based on the discussion above, the project would comply with the City's VMT policy, consistent with the requirements of CEQA Guidelines Section 15064.3, subdivision (b). **(Less than Significant Impact)**

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)**

Site Access

The driveway to the residential parking garage on Terra Bella Avenue would be approximately 22 feet wide, and the driveway on San Rafael Avenue would be approximately 20 feet wide. Both driveway widths meet the required width of 18 feet for a two-way driveway, as described in the City of Mountain View's Zoning Ordinance. To ensure adequate sight distance for vehicles entering and exiting the residential driveways, it is recommended that 25 feet of red curb be painted on both sides of the driveways along Terra Bella Avenue and San Rafael Avenue to prohibit on-street parking. Both driveways to the storage facility buildings would be 26 feet wide, which would meet the requirement of 18 feet for two-way driveways. To ensure adequate sight distance for vehicles entering and exiting the two driveways, it is recommended that the entire cul-de-sac on Linda Vista Avenue be painted with red curb and that the western half of the San Rafael Avenue cul-de-sac be painted with red curb.

Conditions of Approval

COA TRN-3.1: The project would implement the following measures:

- Paint 25 feet of red curb on both sides of the driveways along Terra Bella Avenue and San Rafael Avenue to prohibit street parking
- Paint the cul-de-sac on Linda Vista Avenue and the western half of the San Rafael Avenue cul-de-sac with red curb

Implementing these conditions of approval would increase the level of visibility that motorists would have while approaching or exiting the driveway, which would limit conflicts vehicles, pedestrians, and bicyclists.

Based on the number of projected trips generated by both portions of the project and the relatively low traffic volume on surrounding streets, significant operational issues related to vehicle queuing and vehicle delay are not expected to occur at any of the four driveways on-site. The driveways would operate acceptably and not introduce any significant hazards.⁹¹ In addition, the project would not construct any geometric design changes to the existing streets surrounding the site.

Intersection Queuing

The project would add additional turning vehicles at the intersection of Shoreline Boulevard and Terra Bella Avenue and contribute to the insufficient storage for the southbound left-turn movement during the AM peak hour. However, the proposed residential TDM plan is estimated to reduce the residential vehicle trips by 15 percent. With this reduction, the project is estimated to add 10 vehicles during the AM peak hour to the southbound left-turn movement and would not extend the 95th percentile AM peak hour queue under background conditions and would not have a noticeable effect on traffic operations at this intersection or cause unsafe traffic conditions.

⁹¹ Hexagon Transportation Consultants, Inc. *1020-1040 Terra Bella Avenue Transportation Analysis*. November 22, 2022. Pages 33 to 39.

Land Use Compatibility

Although the development surrounding the project site consists primarily of office and industrial uses, there are already storage facilities on-site and there are residential land uses approximately 700 feet south of the project site. Furthermore, as discussed in Section 4.3 Air Quality and Section 4.13 Noise, there is a residential development project west of the project site that is under construction. The project, therefore, does not propose a use that is incompatible with the existing mix of uses in the project area or propose a use that would bring unusual equipment on the roadways (e.g., farm equipment). For this reason, the project would not result in a significant impact due to incompatible uses. **(Less than Significant Impact)**

Impact TRN-4:	The project would not result in inadequate emergency access. (Less than Significant Impact)
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Access to the project site for emergency vehicles would be provided via the new two-way driveways. The project site would be reviewed by the MVFD and be required to meet the standards set forth by the City's fire code to ensure the project includes the appropriate fire building safety design features and adequate emergency access. As a result, the project would not result in inadequate emergency access. **(Less than Significant Impact)**

4.18 TRIBAL CULTURAL RESOURCES

4.18.1 Environmental Setting

4.18.1.1 *Regulatory Framework*

State

Assembly Bill 52

AB 52, effective July 2015, established a new category of resources for consideration by public agencies called Tribal Cultural Resources (TCRs). AB 52 requires lead agencies to provide notice of projects to tribes that are traditionally and culturally affiliated with the geographic area if they have requested to be notified. Where a project may have a significant impact on a TCR, consultation is required until the parties agree to measures to mitigate or avoid a significant effect on a TCR or until it is concluded that mutual agreement cannot be reached.

Under AB 52, TCRs are defined as follows:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are also either:
 - Included or determined to be eligible for inclusion in the California Register of Historic Resources, or
 - Included in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).
- A resource determined by the lead agency to be a TCR.

4.18.1.2 *Existing Conditions*

As discussed in Section 4.5 Cultural Resources, based on a site-specific records search and literature review, there are no known archaeological sites on-site. However, the record search found a single Native American resource within one-half mile of the project site, which was located approximately 0.4-mile east of the site. The NAHC was contacted on May 18, 2022, per AB 52, to initiate tribal consultation and a Sacred Lands File search. On June 27, 2022, the NAHC responded and determined the results of the search were positive, and provided a list of nine Native American organizations to reach out to for additional information. These organizations were contacted on July 8, 2022 and the AB 52 30-day consultation window ended on August 7, 2022. No responses to initiate tribal consultation have been received to date.

4.18.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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)**

The project site does not contain any known TCRs. As discussed in Section 4.18.1.2, the City contacted the nine tribes identified by the NAHC to invite them to initiate tribal consultation with the City, pursuant to AB 52, and no responses have been received to date.

The project would implement mitigation measure MM CUL-2.1, identified in Section 4.5 Cultural Resources, to reduce the potential for adverse impacts to buried cultural resources (including TCRs) to a less than significant level. The mitigation measure would provide cultural sensitivity training to educate all contractors on types of artifacts and features that may be encountered and what to do if those items are encountered. In addition, the project would implement the City standard condition of approval (COA CUL-2.1) identified in Section 4.5 Cultural Resources that would ensure that any objects encountered during ground-disturbing activities are appropriately evaluated for cultural significance and protected if significant, and if human remains are found, determine if the remains are Native American. Based on this discussion, the project would not cause a substantial adverse change in the significance of a TCRs. **(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)**

Please refer to the discussion under Impact TCR-1 above. **(Less than Significant Impact with Mitigation Incorporated)**

4.19 UTILITIES AND SERVICE SYSTEMS

The following discussion is based on a Utility Impact Study completed by Schaaf & Wheeler dated October 21, 2022. This Utility Impact Study is included as Appendix M of this Initial Study.

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 Mountain View adopted its most recent UWMP in June 2021.

Assembly Bill 939

The California Integrated Waste Management Act of 1989, or AB 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures.

Assembly Bill 341

AB 341 sets forth the requirements of the statewide mandatory commercial recycling program. Businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in California are required to recycle. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Senate Bill 610

SB 610 amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 requires preparation of a WSA containing detailed information regarding water availability to be provided to the decision-makers prior to approval of specified large development projects that also require a General Plan Amendment. This WSA must be included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects. Under SB 610, WSAs must be furnished to local governments for inclusion in any environmental documentation for certain projects subject to CEQA.

Pursuant to the California Water Code (Section 10912[a]), projects that require a WSA include any of the following:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- A mixed-use project that includes one or more of the projects identified in this list; or
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

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. CalRecycle released an analysis titled “Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals” in August of 2020, which recommended maintaining the disposal reduction targets set forth in SB 1383.⁹²

California Green Building Standards Code

CALGreen establishes mandatory green building standards for all buildings in California. CALGreen 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 65 percent of nonhazardous construction and demolition debris; and
- Providing readily accessible areas for recycling by occupants.

⁹² CalRecycle. “Analysis of the Progress Toward the SB 1383 Organic Waste Reduction Goals.” August 18, 2020. [https://www2.calrecycle.ca.gov/Publications/Details/1693#:~:text=Analysis%20of%20the%20Progress%20Toward,\(DRRR%2D2020%2D1693\)&text=SB%201383%20establishes%20targets%20to,75%20percent%20reduction%20by%202025](https://www2.calrecycle.ca.gov/Publications/Details/1693#:~:text=Analysis%20of%20the%20Progress%20Toward,(DRRR%2D2020%2D1693)&text=SB%201383%20establishes%20targets%20to,75%20percent%20reduction%20by%202025).

Local

Mountain View 2030 General Plan

The General Plan contains goals and policies to avoid significant impacts due to utilities impacts. The following goals and policies are applicable to the proposed project.

Policy	Description
Infrastructure and Conservation	
INC 1.3	Utilities for new development. Ensure adequate utility service levels before approving new development.
INC 1.4	Existing capital facilities. Maintain and enhance existing capital facilities in conjunction with capital expansion.
INC 4.1	Water supply. Maintain a reliable water supply.
INC 5.2	Citywide water conservation. Reduce water waste and implement water conservation and efficiency measures throughout the city.
INC 8.2	National Pollutant Discharge Elimination System Permit. Comply with requirements in the Municipal Regional Stormwater National Pollutant Discharge Elimination System Permit (MRP).
INC 8.4	Runoff pollution prevention. Reduce the amount of stormwater runoff and stormwater pollution entering creeks, water channels and the San Francisco Bay through participation in the Santa Clara Valley Urban Runoff Pollution Prevention Program.
INC 8.5	Site-specific stormwater treatment. Require post-construction stormwater treatment controls consistent with MRP requirements for both new development and redevelopment projects.
INC 8.7	Stormwater quality. Improve the water quality of stormwater and reduce flow quantities.
INC 11.1	Waste diversion and reduction. Meet or exceed all federal, state and local laws and regulations concerning solid waste diversion and implementation of recycling and source reduction programs.
INC 11.2	Recycling. Maintain and expand recycling programs.
INC 11.4	Solid waste. Ensure all municipal solid waste generated within the city is collected, transported and disposed of in a manner that protects public health and safety.
Public Safety	
PSA 3.5	Peak water supply. Ensure sufficient peak-load water supply to address fire and emergency response needs when approving new development.

Mountain View Mandatory Organic Waste Disposal Reduction Ordinance

Consistent with SB 1383, City Council adopted the Mandatory Organic Waste Disposal Reduction Ordinance (City Code Chapter 16 Article IV) mandating organic waste disposal reduction. The ordinance requires all residents and businesses to separate organics out of the trash.⁹³

4.19.1.2 *Existing Conditions*

Water Supply and Demand

The City of Mountain View provides water service to the project site. The City is the water retailer for the area and purchases water from two wholesale water suppliers, the SFPUC and Valley Water. In 2020, the City's water supply production was 84 percent SFPUC, 10 percent Valley Water, two percent groundwater, and four percent recycled water. As of 2020, the City's existing water supply is 10,456 acre-feet per year (AFY) and the City's water demand is 9,856 AFY.⁹⁴ When accounting for recent updates to the plumbing code, the UWMP has a projected citywide water demand of 12,058 AFY in 2025 and 14,163 AFY in 2045.⁹⁵

The project site is currently developed with 18 storage facility buildings (including an on-site rental office) and one dilapidated, uninhabitable residence. These land uses combined have an estimated water demand of approximately 3,980 gallons per day (gpd). Water is supplied to the project site by existing 12-inch water mains in Terra Bella Avenue and San Rafael Avenue and an eight-inch water main in Linda Vista Avenue.

Water System

Water Storage

The State Water Resources Control Board Division of Drinking Water (DDW) requires cities to store enough water to meet eight hours of Maximum Day Demand (MDD) in addition to four hours of fire flow volume. In order to meet DDW requirements for existing development in the City, the City must have storage capacity for 13.67 million gallons (mg) of water. The City's maximum water storage capacity is approximately 17 mg; however, the City currently operates with only the operational active storage of 14.3 mg which provides sufficient storage capacity for current needs.

Hydraulic Conveyance

The water system must meet minimum allowable pressure levels under two scenarios, Maximum Day Demand with Fire Flow (MDD+FF) and Peak Hour Demand (PHD). The minimum allowable pressure for the PHD scenario is 40 pound-force per square inch (psi) and the minimum allowable pressure for the MDD+FF scenario is 20 psi. Mountain View is split into three different pressure zones, and the project site is located in Pressure Zone 1. Under existing conditions, the pressure citywide (i.e., in all three pressure zones) under the PHD scenario meets the performance criteria of 40 psi.

⁹³ City of Mountain View. "Food Scraps Composting Program." Accessed September 1, 2022. https://www.mountainview.gov/depts/pw/recycling_and_zero_waste/includefood/default.asp.

⁹⁴ City of Mountain View. *2020 Urban Water Management Plan*. June 2021. P. 34.

⁹⁵ Ibid. P. 18.

Fire Flow

Based on existing conditions, the fire flow rate required for the project site is approximately 3,500 gallons per minute (gpm). This demand is adequately served by the existing fire flow nodes in the area, which can provide maximum flow rates ranging from 3,747 gpm to 6,761 gpm. There are several nodes within Pressure Zone 1 with existing deficiencies that do not meet the required flow rate; however, these are not near the project site.

Wastewater Treatment and Sanitary Sewer System

Wastewater Treatment

The City of Mountain View maintains its own wastewater collection system. Sanitary drains in the City are operated and maintained by the Wastewater Section of the Public Works Department. The City pumps its wastewater to the Palo Alto Regional Water Quality Control Plant (PARWQCP) for treatment. The PARWQCP has an overall 40 million gallons per day (mgd) average annual treatment capacity. The City has an average annual flow treatment allocation of 15.1 mgd at the PARWQCP. In 2020, approximately 6.9 mgd of wastewater from Mountain View was collected and treated by the PARWQCP.⁹⁶

Sanitary Sewer System

The existing buildings on-site are estimated to generate approximately 353,320 gallons of wastewater per year, or 968 gpd. The project site is served by an eight-inch sewer main in Linda Vista Avenue and a 15-inch sewer main in Terra Bella Avenue.

The performance criteria of the sanitary sewer system is calculated by dividing the maximum flow depth of the sewage by the diameter of the pipe (d/D). Based on the City's standard design guidelines, for pipes with a diameter equal to or less than 12 inches, a d/D performance criteria ratio of 0.50 or less is considered adequate, and any ratio higher than that would be considered deficient. Pipes with a diameter greater than 12 inches would have to meet a d/D performance criteria ratio of 0.75 or lower to be considered adequate, and any ratio higher than that would be considered deficient.

The sewer system meets the City's d/D performance criteria along the project flow path. There are no pipes along the flow path that are at risk of surcharging. The system meets d/D performance criteria in all pipes downstream of the project site.

Stormwater Drainage

The storm drainage system that serves the project site is owned and maintained by the City of Mountain View. The project site is currently developed with 18 storage facility buildings and one dilapidated, uninhabitable residence, surface parking lots, and landscaping. The current project site consists of approximately 4.54 acres (or 95 percent) of impervious area, including the rooftops of the existing buildings and surface parking areas. The remaining 0.26 acre (or five percent) of the site consists of pervious area, which is comprised of landscaping and other permeable surfaces. Stormwater runoff from the project site is collected by a municipal storm drain system consisting of storm drain inlets,

⁹⁶ Ibid. P. 31.

conveyance pipes, culverts, channels and retention basins operated by the City of Mountain View Public Works Department. Drainage into the City system generally flows north towards the San Francisco Bay. The project site is served by an existing 21-inch storm sewer line in Terra Bella Avenue, 15-inch storm sewer line in Linda Vista Avenue, and 18-inch storm sewer line in San Rafael Avenue.

Solid Waste

Solid waste collection and recycling services for residents and businesses in Mountain View are provided by Recology Mountain View. Once collected, solid waste and recyclables are transported to the SMaRT Station® in Sunnyvale for sorting, and commercial compostable are transported to a composting facility in Vernalis, California. Non-recyclable waste is transported and landfilled at Kirby Canyon Sanitary Landfill in south San José. Kirby Canyon Landfill has an estimated remaining capacity of approximately 14.6 million tons, and a closing date of approximately January 1, 2071.⁹⁷

It is estimated that the uses on-site generate approximately 74.03 tons of solid waste per year.⁹⁸

Electric Power and Telecommunications Systems

The project site is served by existing phone and electrical services. Phone service is provided to the site by AT&T, and electrical service is provided by SVCE and delivered over PG&E's existing utility lines. The site is served by existing electrical vaults on the western border of the site and on northeastern border of the site, in addition to an electric main in Linda Vista Avenue.

4.19.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

⁹⁷ Azevedo, Becky. Technical Manager, Waste Management. Personal Communications. December 27, 2021.

⁹⁸ Illingworth & Rodkin, Inc. *Terra Bella Public Storage & Housing Project Air Quality & Greenhouse Gas Assessment*. November 15, 2022.

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5) Be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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)**

Water Supply and Demand

Water supply is analyzed cumulatively based on the buildout of the General Plan and implementation of recommended Capital Improvement Projects (CIPs). The Average Daily Demand (ADD) under future cumulative conditions (2030 General Plan buildout) is estimated to be approximately 18.01 mgd. According to the Utility Impact Study conducted for this project, the project demand for potable water on-site under future cumulative conditions would increase from approximately 5,370 to 35,438 gpd, which results in a net increase of 30,068 gpd (approximately 0.0299 mgd). The storage facility would make up 24,638 gpd (approximately 70 percent) of the water demand and the residential building would make up 10,800 gpd (approximately 30 percent) of the water demand. The project's net increase in water demand would account for 0.16 percent of the citywide ADD. This incremental increase in demand for water would not substantially impact the City's ability to meet total system demand. The post project demand under PHD would be 50.25 mgd and the total supply available to the City under PHD is projected to be 52.19 mgd, which is adequate to meet the demand from buildout of the General Plan and the project. For these reasons, no improvements to or expansion of existing water supply infrastructure is required to serve the proposed project. **(Less than Significant Impact)**

Water System

Water Storage

The proposed project's impact on the utility system for water storage was analyzed under cumulative conditions. The cumulative condition scenario incorporates the projected buildout under the 2030 General Plan and recommended CIPs. As discussed in Section 4.19.1.2, the City must maintain a

storage capacity of 13.67 mg of water. The City's maximum water storage capacity is approximately 17 mg; however, the City currently operates with only the operational active storage of 14.3 mg which provides sufficient storage capacity for current needs. Post-project, the citywide total for eight hours of MDD would remain the same at 13.67 mg. Since there is no increase in the DDW requirement, implementation of the project would not require any additional increases in storage capacity, as the City's infrastructure is capable of storing 14.3 mg. Therefore, the project would have a less than significant impact on water storage infrastructure. **(Less than Significant Impact)**

Hydraulic Conveyance

The proposed project's impact on the utility system for hydraulic conveyance was analyzed under existing conditions and cumulative conditions. The existing conditions scenario models the project's impact on the existing condition and configuration of the utility system. The cumulative condition scenario incorporates the projected 2030 General Plan buildout of the City, including the recommended CIPs and other recommended upgrades that have been previously identified. As discussed in Section 4.19.1.2, the water system must meet minimum allowable pressure levels under two scenarios, MDD+FF and PHD. The minimum allowable pressure for the PHD scenario is 40 psi and the minimum allowable pressure for the MDD+FF scenario is 20 psi.

Under existing conditions, the performance criteria under the PHD scenario is met system-wide in both the pre- and post-project scenarios. Under future cumulative conditions, the analysis in the Utility Impact Study found that the system would continue to maintain an adequate pressure level with the exception of several nodes by Shoreline Golf Links that are just under the performance criteria of 40 psi, but not below 37 psi; however, no new deficiencies result from the project. The analysis in the Utility Impact Study found that despite this slight shortfall in performance criteria in both pre- and post-project scenarios, the system would still maintain adequate pressures.⁹⁹

Based on this analysis, the project would have a less than significant impact on pressure levels within the system. **(Less than Significant Impact)**

Fire Flow

The proposed project's impact on the utility system for fire flow was analyzed under existing conditions and cumulative conditions. The existing conditions scenario models the project's impact on the existing condition and configuration of the utility system. The cumulative condition scenario incorporates the projected 2030 General Plan buildout of the City, including the recommended CIPs and other recommended upgrades that have been previously identified.

Under existing conditions, the planning-level required flow rate is 3,500 gpm in both pre- and post-project scenarios. Based on the analysis in the Utility Impact Study, the hydrant locations at the project site would continue to maintain adequate fire flow under existing conditions in both pre- and post-project scenarios. Post-project, the available flow rate from these hydrants would decrease slightly to provide a flow rate ranging from 3,736 gpm to 6,712 gpm, which would continue to meet the required rate of 3,500 gpm. As discussed in Section 4.19.1.2, there are several nodes within Pressure Zone 1 with existing deficiencies that do not meet the required flow rate; however, these are not near the

⁹⁹ Schaaf & Wheeler. *1020 and 1040 Terra Bella & 1055 San Leandro Avenue Utility Impact Study*. October 21, 2022. Page 3-5.

project site. Implementation of the project would result in a slight decrease in available fire flow at these deficient nodes; however, the decrease would be less than one percent and is not considered significant.¹⁰⁰

Under future cumulative conditions, the required planning-level fire flow rate would be 3,500 gpm for both pre- and post-project scenarios. Based on the analysis in the Utility Impact Study, two of the three hydrant locations at the project site provide an adequate fire flow rate and one is considered deficient as its pre-project available flow is limited to 3,330 gpm, which is below the required flow rate of 3,500 gpm. Implementation of the project would result in an incremental increase in this existing deficiency, as the post-project available flow rate would decrease to 3,319 gpm. The increase in water demand would result in less than a one percent decrease in available fire flow at the nearest deficient nodes; therefore, the impact is not considered significant. In addition, although the fire flow rate at this hydrant would not meet the required planning level flow rate of 3,500, the project would install fire sprinklers in all three buildings which would be consistent with California Fire Code (CFC) Section B105.2. The installation of these automatic fire sprinklers in each building would reduce the project-specific fire flow rate requirement to 1,500 gpm, which would be met by all three fire hydrants at the project site.¹⁰¹ Based on this discussion, the project would have a less than significant impact on required fire flow rates at the project site. **(Less than Significant Impact)**

Sanitary Sewer Infrastructure

The project site is served by an eight-inch sewer main in Linda Vista Avenue and a 15-inch sewer main in Terra Bella Avenue. The residential portion of the proposed project would construct new domestic sanitary sewer lateral connections to the existing sanitary sewer main in Terra Bella Avenue. The storage facility portion of the project would construct new sanitary sewer lateral connections to the existing sanitary sewer main in Linda Vista Avenue. Under existing plus project conditions, the estimated sewer flow would be 26,579 gpd (18,479 for the storage facility and 8,100 gpd for the residential building), which is an increase of 25,611 gpd compared to the existing sewer flow on-site of 968 gpd. The storage facility would make up 18,479 gpd (approximately 69.5 percent) of the sewer flow and the residential building would make up 8,100 gpd (approximately 30.5 percent) of the sewer flow.

Existing Plus Project Impacts

Under existing conditions, the sewer system would meet the City's d/D performance criteria along the project flow path in both pre- and post-project scenarios. There would be no pipes with deficiencies downstream of the project site under either scenario.

Cumulative Plus Project Impacts

The future cumulative condition assumes that the CIPs recommended as part of the 2030 General Plan Update Utility Impact Study (GPUUIS) are constructed. Four of the recommended CIPs from the GPUUIS are located downstream of the project site. The model also accounts for the buildout of the 2030 General Plan and other additional projects that are currently under review, under construction, approved, or recently completed as of June 2022.

¹⁰⁰ Ibid. Page 3-4.

¹⁰¹ Ibid. Page 2.2.

Under these future cumulative conditions, the sewer system downstream of the project site would meet the City's d/D performance criteria along the project flow path in both pre- and post-project scenarios. There would be no new deficiencies downstream of the project site due to the projects incremental increase in sewer flow under either scenario.

City policy requires that a project's contribution to recommended CIPs be calculated to determine the fair share fee required from developers to assist in the implementation of the CIP. The City has determined that contributions of less than one percent fall within the margin of error for variability within the model. Therefore, only projects that contribute more than one percent would be responsible for the fair share fee associated with the CIP. Of the four GPUUIS recommended CIPs downstream of the project site, the storage facility would result in a contribution of more than one percent to CIP #P-100 at 13 pipe segments, ranging from 1.04 to 1.07 percent. The residential building would result in a contribution under one percent to CIP #P-100, ranging from 0.38 to 0.47 percent. The storage facility applicant would be required to pay the appropriate fair share fee prior to redevelopment of the project site given the storage facility's contribution of more than one percent. The fees would be used by the City to fund the identified CIP and reduce the project's impact to the sanitary sewer system to a less than significant level. The Future CIPs required within the City would be subject to a separate project specific environmental review at the time the design and construction details of the CIPs are known. Mitigation measures for construction-related impacts (such as the ones discussed in this Initial Study) typically reduce construction-related impacts to a less than significant level. **(Less than Significant Impact)**

Stormwater Drainage Infrastructure

The project site is currently comprised of 4.54 acres (or approximately 95 percent) of impervious area, and 0.26 acre (or approximately five percent) of pervious area. The proposed project would reduce the amount of impervious surface to 3.89 acres (or 81 percent). The project would replace portions of the project site that are currently impervious with improvements such as bioretention areas, landscaping, and rain gardens. These improvements would result in a reduction of impervious surface would result in a corresponding decrease the amount of runoff from the project site. Runoff from the project site currently flows into an existing 21-inch storm drain line in Terra Bella Avenue, 15-inch storm drain line in Linda Vista Avenue, and 18-inch storm drain line in San Rafael Avenue.

Both the residential and storage facility portions of the project would construct new storm drain inlets on-site and make lateral connections to the existing storm drain lines in Terra Bella Avenue, Linda Vista Avenue, and San Rafael Avenue. The storm drain improvements needed in order to convey stormwater to the existing storm drain lines would require trenching during construction. Construction related impacts from trenching for the storm drain improvements would be less than significant. **(Less than Significant Impact)**

Electric Power and Telecommunications Facilities

Existing electricity and telecommunications utility infrastructure currently serve the project site and would continue to serve the site under the proposed project. The project would be 100 percent electric and no new natural gas connections are proposed. Electric lines for the residential portion of the project would connect to an existing electrical vault on San Rafael Avenue northeast of the proposed building,

and overhead electricity lines along the project frontage on Terra Bella Avenue would remain in place. The storage facility portion of the project would install electric lines and transformers on-site to connect to the existing electric main in Linda Vista Avenue. The work would be completed within the boundaries of the project area, limiting the impact on the public right-of-way. Construction-related impacts from these improvements are less than significant. **(Less than Significant Impact)**

Impact UTL-2:	The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. (Less than Significant Impact)
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The current water demand at the project site is estimated to be approximately 5,370 gpd based on the existing land uses and densities. That demand would increase by 30,068 net gpd for a total of 35,438 gpd after the project is completed. The proposed residential building would achieve GreenPoint Rated Gold certification level, in part, by installing drought tolerant landscaping with high-efficiency irrigation and water efficient interior fixtures to further reduce the demand for water on-site. The storage facility buildings would have a limited number of water fixtures given the use of the buildings; however, the two buildings would also install water efficient interior fixtures and high-efficiency irrigation for the drought tolerant landscaping around the perimeter of the site.

As of 2020, the City's existing water supply is 10,456 acre-feet per year (AFY) and the City's water demand is 9,856 AFY.¹⁰² The project's estimated net increase in water demand compared to existing conditions of 30,068 gpd (approximately 33.7 AFY) would account for approximately 0.3 percent of the overall water supply in the city. The project would result in an incremental increase in demand for water in the city; however, Mountain View would maintain sufficient supply to accommodate the small increase in demand during normal years. As discussed in Section 4.19.1.2, the City's 2020 UWMP found that the City had adequate water supplies to meet demand through 2045 in normal years, with potential shortfalls up to 20 percent due to cuts in supply from SFPUC in dry years.¹⁰³

To maintain adequate water supply during dry and multiple dry years where there may be shortfalls in supply, the City would institute mandatory conservation measures, with escalating levels of conservation requirements as the shortages in water supply increase. These measures include limiting outdoor water use, encouraging further conservation through outreach programs, and requiring the rapid repair of leaks. The entire City, including the proposed project, would be subject to these measures during dry and multiple dry years. Compliance with mandatory conservation measures in the City would ensure that sufficient water supply is maintained in normal, dry, and multiple dry years. **(Less than Significant Impact)**

¹⁰² City of Mountain View. *2020 Urban Water Management Plan*. June 2021. Page 34.

¹⁰³ Ibid. Page ES-7.

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)**

Existing Plus Project Impacts

As discussed in Section 4.19.1.2, the PARWQCP treats wastewater from the City and has an overall average annual treatment capacity of 40 mgd. The City has an average annual flow treatment allocation of 15.1 mgd at the PARWQCP. In 2020, approximately 6.9 mgd of wastewater from Mountain View was sent to the PARWQCP for treatment.¹⁰⁴ This results in an available capacity of approximately 8.2 mgd of available treatment capacity for the City at the PARWQCP. As discussed under Impact UTL-1, the project would generate approximately 25,611 gpd (0.026 mgd) more than the current development on-site under existing conditions. Based on this information, the PARWQCP would have adequate capacity to treat the existing demand in addition to the increase in wastewater resulting from the proposed project. **(Less than Significant Impact)**

Cumulative Plus Project Impacts

Under future cumulative conditions, it is estimated that the City would generate approximately 14.15 mgd of wastewater in the pre-project scenario, which would account for approximately 93.7 percent of the capacity available to the City at the PARWQCP. In the post-project scenario, that total would increase to 14.176 mgd (approximately 93.88 of the capacity available to the City), which is an increase of approximately 0.026 mgd contributed by the project. Under the Basic Agreement between the City, Palo Alto, and Los Altos, an engineering study to redefine the anticipated future needs of the treatment plant is required once each respective service area reaches 80 percent of their contractual capacity rights. Based on this agreement, the City would be required to conduct this engineering study once the average annual flow to the PARWQCP increases to 12.08 mgd during the buildout of the General Plan. Any recommendations regarding physical improvements to the PARWQCP resulting from this engineering study would be subject to separate environmental review. Although the project would contribute to the increased generation of wastewater associated with the buildout of the General Plan, it would only account for less than a quarter of one percent of the overall capacity need in the City. Based on this discussion, the project's contribution would be considered less than significant. **(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)**

In compliance with CALGreen requirements, the project would be required to recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition debris resulting from construction activities. The proposed project would limit the amount of operational waste disposed of through the provision of on-site recycling collection, as required by AB 341.

¹⁰⁴ Ibid. Page 31.

As discussed in Section 4.19.1.2, the existing improvements on-site produce approximately 74.03 tons of solid waste per year. Once operational, the project would generate an additional 360.53 tons of solid waste compared to existing conditions, for an annual total of approximately 434.56 tons. Solid waste generated by the project would be sorted at the SMaRT Station® in Sunnyvale, and any non-recyclable waste would be transported to Kirby Canyon Landfill, which has an estimated remaining capacity of approximately 14.6 million tons and a closing date of approximately January 1, 2071. Based on the remaining capacity at Kirby Canyon Landfill and the estimated amount of waste generated by the project, the landfill would have sufficient capacity to serve the project.

Because the project can be served by a landfill with capacity and would be required to comply with existing local and state programs and regulations, the project's impacts related to solid waste and landfill capacity and attainment of solid reduction goals would be less than significant. **(Less than Significant Impact)**

Impact UTL-5:	The project would be compliant with federal, state, or local management and reduction statutes and regulations related to solid waste. (Less than Significant Impact)
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As discussed under Impact UTL-4, the proposed project would comply with state and local regulations related to solid waste reduction. The project would comply with CALGreen standards for construction waste recycling and divert at least 65 percent of construction waste resulting from construction activities on-site. The proposed project would comply with AB 341 by utilizing the City's garbage service, which commercially sorts recyclable material at the SMaRT Station®. In addition, the residential portion of the project would comply with SB 1383 and City Code by offering compost bins in the on-site trash collection rooms that residents could utilize to dispose of their organic waste (i.e., food scraps). Furthermore, solid waste from the project site would be disposed of at the Kirby Canyon Landfill in San José, as discussed under Impact UTL-4. The project would not result in a substantial increase in waste landfilled at Kirby Canyon, nor would it be served by a landfill without sufficient capacity. In compliance with the City Code and General Plan policies, the project would not conflict with state and federal solid waste regulations and statutes. **(Less than Significant Impact)**

4.20 WILDFIRE

4.20.1 Environmental Setting

4.20.1.1 *Existing Conditions*

The proposed project site is in an urban area surrounded by existing development. The site is not located within an identified Very High Fire Hazard Severity Zone in a State Responsibility Area (SRA) or a Local Responsibility (LRA).^{105,106} The project site is not located near wildlands that could present a fire hazard.

4.20.2 Impact Discussion

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones; therefore, the project would not result in wildfire impacts. **(No Impact)**

¹⁰⁵ California Department of Forestry and Fire Protection. *Santa Clara County Fire Hazard Safety Zone Map – State Responsibility Area*. November 2007.

¹⁰⁶ California Department of Forestry and Fire Protection. *Santa Clara County Fire Hazard Safety Zone Map – Local Responsibility Area*. October 2008.

4.21

MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
1) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Impact MFS-1: The project does not have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. **(Less than Significant Impact with Mitigation Incorporated)**

As discussed in Section 4.0 of this Initial Study, the proposed project would not degrade the quality of the environment with implementation of City standard conditions of approval and the identified mitigation measures. As discussed in Section 4.4 Biological Resources, the project would not impact sensitive habitats or special-status species. The project would implement City standard condition of approval COA BIO-1.1 to reduce impacts to nesting birds to a less than significant level. As discussed in Sections 4.5 Cultural Resources and 4.18 Tribal Cultural Resources, there are no known pre-historic or historic cultural resources on-site. The project would implement mitigation measure MM CUL-2.1 and City standard condition of approval COA CUL-2.1 to reduce potential impacts to unknown resources (if encountered on-site during construction) to a less than significant level. **(Less than Significant with Mitigation Incorporated)**

Impact MFS-2:	The project does not have impacts that are individually limited, but cumulatively considerable. (Less than Significant Impact with Mitigation Incorporated)
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Under Section 15065(a)(3) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects “that are individually limited, but cumulatively considerable.” As defined in Section 15065(a)(3) of the CEQA Guidelines, cumulatively considerable means “that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”

As discussed in Sections 4.2, 4.12, and 4.20, the project would not impact agricultural or forestry resources, mineral resources, or wildfire. Therefore, the project would not contribute to a cumulative impact to these resources.

In general, an individual project’s impact on broader resources including air quality, energy, GHGs, and VMT are evaluated at a cumulative level. That is, if a project results in a significant impact to air quality (specifically criteria air pollutants), energy, GHGs, and VMT, the project would be considered to have a significant cumulative impact to those resources. As discussed in Sections 4.3, 4.6, 4.8, and 4.17, the project would not result in significant (individual and cumulative) impacts to those resource areas with the implementation of the identified City standard conditions of approval (COA AIR-1.1 and AIR-3.1) and mitigation measure (MM AIR-1.1). Cumulative health risk impacts are discussed in Section 4.3.2 and found to be less than significant with the implementation of City standard condition of approval COA AIR-1.1 and mitigation measure MM AIR-1.1. Cumulative utility impacts are discussed in Section 4.19.2 and found to be less than significant with the implementation of planned CIPs.

The project’s impacts to cultural resources and TCRs are specific to the site, and as discussed in Sections 4.5 and 4.18, implementation of mitigation measure MM CUL-2.1 and City standard condition of approval COA CUL-2.1 would reduce those impacts to a less than significant level.

The geographic area for cumulative aesthetic, cultural resources (including TCRs), geology and soils, hazards and hazardous materials, and noise impacts is generally the immediate vicinity of the project site because it would affect common resources and impacts would be limited to the immediate vicinity. In regard to cumulative aesthetic impacts, there are two cumulative projects in the immediate vicinity of the project: 1) a commercial office project located 1155 & 1185 Terra Bella Avenue that proposes to construct a 20,000 square foot office building and surface parking lot and 2) a mixed-use project located at 1001 North Shoreline Boulevard that would construct a seven-story, 203-unit apartment building, a seven-story, 100 condominium-unit building, and a six-level parking structure to accommodate the existing office building on-site. These cumulative projects would not result in a significant cumulative aesthetics impact because the cumulative projects are required to undergo the same DRC review process to ensure compliance with General Plan policies and City Code regulations regarding view preservation, minimization of light and glare, and neighborhood compatibility. Cumulative projects are subject to the same existing state, regional, and local regulations including the MBTA, Fish and Game Code, City Tree Preservation Ordinance, CBC, MRP provisions, PCB/ACM/LBP regulatory screening requirements, NPDES permit requirements, General Plan policies, and City Code regulations identified in Sections 4.4, 4.5, 4.7, 4.9, 4.10, and 4.18. Compliance

with these regulations, in addition to implementation of City standard conditions of approval (such as COAs, BIO-1.1, BIO-5.1, CUL-2.1, GEO-1.1, GEO-6.1, HAZ-2.1, HAZ-2.2, HYD-1.1) would ensure significant individual and cumulative biological resources, cultural resources (including TCRs), geology and soils, hazards and hazardous materials, hydrology and water quality, are reduced to a less than significant level. Cumulative noise impacts are discussed in Section 4.13.2 and found to be less than significant.

In addition, except for affordable housing projects, cumulative residential developments are required to pay park land dedication fees required by the City. Cumulative residential projects are also required to pay school impact fees in accordance with California Government Code Section 65996 and comply with General Plan Policy MOB 10.4, which would ensure adequate emergency response times. For these reasons, cumulative projects would not contribute to a cumulative significant recreation or public services impact.

Land uses in the City are regulated through the General Plan, Zoning Ordinance, and depending on the location of the site, the Moffett Federal Airfield CLUP. The project requires a General Plan amendment and rezoning to allow for construction of residential uses on-site. As discussed in Section 4.11, the project would comply with the Moffett Federal Airfield CLUP by implementing condition of approval COA HAZ-5.1 and notifying the FAA if any construction equipment on-site would exceed 146 feet in height.

As discussed in Section 4.14, the proposed project would result in up to 109 residential units (and approximately 256 new residents) that were not accounted for in the 2030 General Plan buildout. The project's number of residential units and estimated residents represents a 0.2 percent increase in population compared to the General Plan buildout. Given this incremental increase and the projected City growth, the project would not result in a significant cumulative population and housing impact.

As discussed in Section 4.19.2, a cumulative utility analysis was conducted to evaluate the potential impacts of the proposed project on the water and sanitary sewer system in the City. This cumulative analysis determined that the project would have a less than significant impact on the water and sanitary sewer system under future cumulative conditions. Future cumulative projects would be required to confirm sufficient water supply, wastewater treatment capacity, and solid waste disposal capacity. In addition, cumulative projects would detail the exact locations for all utility connections and utility plans as part of the design review process. Therefore, cumulative projects would not result in a significant cumulative utility and service impact.

Given the above considerations, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Impact MFS-3:	The project does not have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly. (Less than Significant Impact with Mitigation Incorporated)
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Consistent with Section 15065(a)(4) of the CEQA Guidelines, a lead agency shall find that a project may have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly.

Under this standard, a change to the physical environmental that might otherwise be minor must be treated as significant if it would cause substantial adverse effects to humans, either directly or indirectly. This factor relates to adverse changes to the environment of human beings generally, and not effects on particular individuals.

The potential for the proposed project to result in changes to the environment that could directly or indirectly affect human beings is evaluated in each section of this Initial Study using the CEQA Checklist. In particular, the resource areas that could directly affect human beings include air quality, geology and soils, hazards and hazardous materials, and noise. The potential project-related impacts discussed in Sections 4.3, 4.7, 4.9, 4.13 would all be reduced to a less than significant level with adherence to existing regulations and implementation of the identified mitigation measures (MM AIR-1.1 and NOI-2.1) and City standard conditions of approval (COAs AIR-1.1, AIR-1.2, AIR-5.1, GEO-1.1, HAZ-2.1, HAZ-2.2, NOI-1.1, NOI-1.2, NOI-2.1, and NOI-4.1). No other direct or indirect adverse effects of the project on human beings have been identified. **(Less than Significant Impact with Mitigation Incorporated)**

SECTION 5.0 REFERENCES

The analysis in this Initial Study 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 6.0 LEAD AGENCY AND CONSULTANTS

6.1 LEAD AGENCY

City of Mountain View

Community Development Department

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Rebecca Shapiro, Deputy Zoning Administrator Edgar Maravilla, Senior Planner

6.2 CONSULTANTS

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Environmental Consultants and Planners

Kristy Weis, Vice President/Principal Project Manager

Amy Wang, Project Manager

Nick Towstopiat, Assistant Project Manager

Ryan Osaka, Graphic Artist

Archaeological/Historical Consultants

Archaeological Consultants

Daniel Shoup, Principal/Owner

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Hazardous Materials Consultants

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Daniel Phelps, Staff II Geologist

SECTION 7.0 ACRONYMS AND ABBREVIATIONS

ABAG	Association of Bay Area Governments
ACM	Asbestos-Containing Material
ADA	Americans with Disabilities Act
ADT	Average Daily Trips
AFY	Acre-Feet per Year
APN	Assessor's Parcel Number
AIA	Airport Influence Area
ATCM	Air Toxics Control Measure
BAAQMD	Bay Area Air Quality Management District
BGS	Below Ground Surface
BLTS	Bicycle Level of Traffic Stress
BMPs	Best Management Practices
BTP	Bicycle Transportation Plan
Btu	British thermal units
CAL FIRE	California Department of Forestry and Fire Protection
CalARP	California Accidental Release Prevention
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health
CALTRANS	California Department of Transportation
CAL FIRE	California Department of Forestry and Fire Protection
CAP	Clean Air Plan
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFCs	Chlorofluorocarbons
CGS	California Geological Survey
CIPs	Capital Improvement Projects
CLUP	Comprehensive Land Use Plan

CMP	Congestion Management Program
CMU	Concrete Masonry Unit
CO ₂	Carbon Dioxide
CO ₂ e	CO ₂ Equivalents
CPR	Climate Protection Roadmap
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agency
DDW	State Water Resources Control Board Division of Drinking Water
DRC	Development Review Committee
DTSC	Department of Toxic Substances Control
DU/AC	Dwelling Units per Acre
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
EPC	Environmental Planning Commission
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FAR	Federal Aviation Regulations
FEMA	Federal Emergency Management Agency
FEPD	Fire and Environmental Protection Division
FIRM	Flood Insurance Rate Maps
FMMP	Farmland Mapping and Monitoring Program
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GPUUIS	2030 General Plan Update Utility Impact Study
GWh	Gigawatt Hours
GWMP	Groundwater Management Plan
GWP	Global Warming Potential
HAZWOPER	Hazardous Waste Operations and Emergency Response
HFCs	Hydrofluorocarbons
HI	Hazard Index
HMCD	Hazardous Materials Compliance Division
HOV	High-Occupancy Vehicle

HSWA	Hazardous and Solid Waste Amendments
HVAC	Heating, Ventilation, and Air Conditioning
LID	Low Impact Development
LOS	Level of Service
LRA	Local Responsibility Area
LUST	Leaking Underground Storage Tank
MBTA	Migratory Bird Treaty Act
MDD	Maximum Day Demand
MDD+FF	Maximum Day Demand with Fire Flow
MND	Mitigated Negative Declaration
MRP	Municipal Regional Stormwater NPDES Permit
MVFD	Mountain View Fire Department
MVGBC	Mountain View Green Building Code
MVLASD	Mountain View-Los Altos Union High School District
MVPD	Mountain View Police Department
MVTC	Mountain View Transit Center
MVTMA	Mountain View Transportation Management Association
MVWSD	Mountain View Whisman School District
NAHC	Native American Heritage Commission
NCP	National Contingency Plan
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act of 1966
NOD	Notice of Determination
NOI	Notice of Intent
NO _x	Nitrogen Oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
O ₃	Ground-level Ozone
OITC	Outdoor-Indoor Transmission Class
OPR	Governor's Office of Planning and Research
PCB	Polychlorinated Biphenyls
PDA	Priority Development Areas

PFCs	Perfluorocarbons
PHD	Peak Hour Demand
PM	Particulate Matter
PPV	Peak Particle Velocity
PQOS	Pedestrian Quality of Service
PSI	Pound-Force per Square Inch
RCRA	Resource Conservation and Recovery Act
RHNA	Regional Housing Need Allocation
ROG	Reactive Organic Gases
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCCDEH	Santa Clara County Department of Environmental Health
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy
SFHA	Special Flood Hazard Areas
SFPUC	San Francisco Public Utilities Commission
SHMA	Seismic Hazards Mapping Act
SMARA	Surface Mining and Reclamation Act
SO _x	Sulfur Oxides
SRA	State Responsibility Area
STC	Sound Transmission Class
SVCE	Silicon Valley Clean Energy
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TA	Transportation Analysis
TACs	Toxic Air Contaminants
TCRs	Tribal Cultural Resources
TDML	Total Maximum Daily Loads
TSCA	Toxic Substances Control Act
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
USGS	US Geologic Service
UWMP	Urban Water Management Plan

VMT	Vehicle Miles Traveled
VTA	Santa Clara Valley Transportation Authority
WUI	Wildland Urban Interface



Memorandum

DATE: January 24, 2023

TO: Edgar Maravilla, City of Mountain View

FROM: Amy Wang, Project Manger
Kristy Weis, Principal Project Manager

SUBJECT: Draft Initial Study/Mitigated Negative Declaration for the Terra Bella Public Storage & Alta Housing Project – Responses to Comments Received and Text Revisions

The purpose of this memorandum is to provide responses to comments received on the Draft Initial Study/Mitigated Negative Declaration (IS/MND) and describe changes to the text of the Draft IS/MND following its publication on November 28, 2022. The 30-day public review period for the Draft IS/MND concluded on December 28, 2022. Subsequent to the publication of the Draft IS/MND, the applicant revised the project to remove nine parking spaces and mechanical parking stalls in the proposed residential building. The text revisions below address this change and make other clarifications or insignificant modifications to the IS/MND.

The comments received, responses to comments, and text revisions do not constitute substantial revisions pursuant to CEQA Guidelines Section 15073.5, therefore, no recirculation of the IS/MND is required prior to adoption.

I. RESPONSE TO COMMENTS

One comment letter from the Department of Toxic Substances Control dated December 22, 2022 was received by the City during the public review period for the IS/MND. Responses to the comments are provided below. A copy of the comment letter is provided in Attachment A of this memorandum.

Comment 1: The Department of Toxic Substances Control (DTSC) received a Mitigated Negative Declaration (MND) for the Terra Bella Public Storage & ALTA Housing Project (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

Response 1: The comments pertaining to the topics mentioned in the above comment are responded to below.

Comment 2: The MND references the listing compiled in accordance with California Government Code Section 65962.5, commonly known as the Cortese List. Not all sites impacted by hazardous waste or hazardous materials will be found on the Cortese List. DTSC recommends that the Hazards and Hazardous Materials section of the MND address actions to be taken for any sites impacted by hazardous waste or hazardous materials within the Project area, not just those found on the Cortese List.

Response 2: Section 4.9.1.2 of the IS/MND summarizes the site history and hazardous materials contaminations documented in the project area based on Phase I Environmental Site Assessments (ESAs) completed for the project site. The Phase I ESAs were prepared in accordance with American Society for Testing and Materials (ASTM) standard practices and included a search of databases that comprise the Cortese List (including DTSC's EnviroStor and the State Water Resources Control Board's GeoTracker) and other federal, state, tribal, and county regulatory databases. The other federal, state, tribal, and county regulatory databases searched included the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS), RCRAInfo, Leaking Underground Fuel Tank Reports, Aboveground Storage Tanks, Leaking Underground Storage Tanks on Indian Lands, Underground Storage Tanks on Indian Lands, Santa Clara County – CUPA Facilities List, and Santa Clara County – Local Oversight Program Listing databases. Refer to Appendices E and G of the IS/MND for the names of all databases searched and the results.

Comment 3: DTSC recommends consulting with other agencies that may provide oversight to hazardous waste facilities and sites in order to determine a comprehensive listing of all sites impacted by hazardous waste or hazardous materials within the Project area.

Response 3: The IS/MND was submitted to the State Clearinghouse, where it was distributed to state agencies including the DTSC, State Water Resources Control Board, and the San Francisco Regional Water Quality Control Board (Water Board). The City also provided the Notice of Intent to adopt the IS/MND to the public,

responsible and trustee agencies, and the Santa Clara County Clerk. The City did not receive comments from other agencies besides DTSC.

Comment 4: DTSC hazardous waste facilities and sites with known or suspected contamination issues can be found on DTSC's EnviroStor data management system. The EnviroStor Map feature can be used to locate hazardous waste facilities and sites for a county, city, or a specific address. A search within EnviroStor indicates that numerous hazardous waste facilities and sites are present within the Project's region.

Response 4: As discussed in Response 2 above, the Phase I ESAs completed for the project included a search of DTSC's EnviroStor database. The Phase I ESAs (which are included in Appendices E and G of the IS/MND) includes the search results and identified conditions that could affect the project site based on distance, type of contamination, and groundwater gradient. The summary of the Phase I ESA findings is included in Section 4.9.1.2 of the IS/MND.

Comment 5: DTSC recommends that the following issues be evaluated in the Hazards and Hazardous Materials section of the MND: 1. A State of California environmental regulatory agency such as DTSC, a Regional Water Quality Control Board (RWQCB), or a local agency that meets the requirements of Health and Safety Code section 101480 should provide regulatory concurrence that project site is safe for construction and the proposed use.

Response 5: Condition of approval COA HAZ-8.1 on pages 105 and 106 of the IS/MND requires the project applicant work with an oversight agency, which could be the U.S. Environmental Protection Agency (U.S. EPA), DTSC, SRWQCB, or County of Santa Clara Department of Environmental Health, to address site remediation or building design/construction requirements. The condition requires the design of remediation equipment, equipment placement, or remediation activities be reviewed by the oversight agency and City. In addition, the condition requires written proof from the regulatory agency be submitted to the City that the remediation and/or design is adequate. Alternatively, if it is determined no remediation is required, documentation that no regulatory oversight is needed is required to be submitted to the City.

Comment 6: 2. The MND acknowledges the potential for historic or future activities on or near the Project site to result in the release of hazardous wastes/substances on the Project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The MND should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

Response 6: Condition of approval COA HAZ-8.1 on pages 105 and 106 of the IS/MND requires the project to obtain oversight by the appropriate regulatory agency and conduct any additional studies as required by the oversight agency to further delineate and implement site remediation or building design/construction requirements to ensure the health and safety of future occupants and the environment.

Comment 7: 3. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil, DTSC recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the Project described in the MND.

Response 7: Text has been added to Section 4.9.1.2 of the IS/MND to clarify the site's potential to contain ADL-contaminated soil. Text has also been added to condition of approval COA HAZ-2.1 to clarify the potential presence of elevated levels of ADL would be investigated as part of the regulatory oversight review and approval process with documentations submitted to the City prior to issuance of any project permits. Refer to Section II of this memorandum for the added text.

Comment 8: 4. If any projects initiated as part of the proposed Project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to DTSC's 2001 Information Advisory Clean Imported Fill Material.

Response 8: The project does not propose to import soils; therefore, the above reference to the 2001 Information Advisory Clean Imported Fill Material is not applicable.

Comment 9: 5. If any sites included as part of the proposed Project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the MND. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 Interim Guidance for Sampling Agricultural Properties (Third Revision).

Response 9: As discussed in Section 4.9.1.2 on page 97 and Section 4.9.2 on page 100 of the IS/MND, the project site was previously used as agricultural land and on-site soil could be contaminated with agricultural chemicals. Text has been added to condition of approval COA HAZ-2.1 (which requires the preparation of a soil management plan) to clarify that the potential presence of elevated levels of organochlorine pesticide would be investigated as part of the regulatory oversight review and approval process, with documentations submitted to the City prior to issuance of any project permits. DTSC's 2008 Interim Guidance for Sampling Agricultural Properties (Third Revision) and any other applicable DTSC guidance documents, would be considered.

II. TEXT REVISIONS TO THE DRAFT IS/MND

New text is shown as underlined and deletions are shown with a ~~line through the text~~.

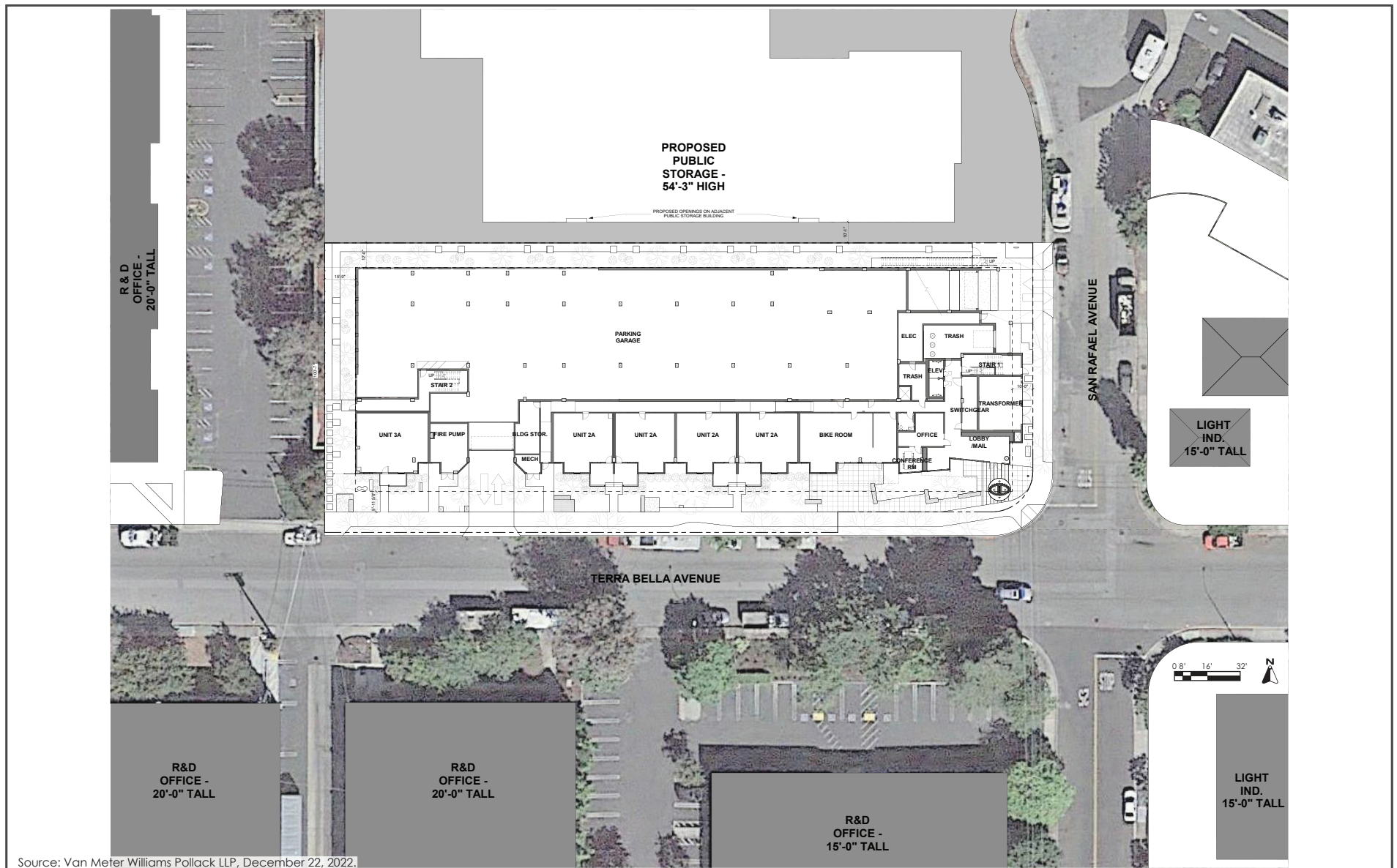
Page 2 Draft MND; text in the first sentence of the third paragraph under Project Location and Description has been ADDED as follows:

The project would demolish a total of 77,418 square feet of existing storage facility space including a manager's unit to construct a new six-story (up to 70 feet to the top of roof and 80 feet to top of penthouse) residential apartment building with 108, 100 percent affordable units (excluding two manager's units) and an above grade parking garage.

Page 2 Draft Initial Study; text in the last sentence of the first paragraph under Project Location has been ADDED as follows:

Public Storage owns the remaining 4.3-acre majority of the site (APNs 153-15-002 and 153-15-030), which is developed with 18, single-story buildings that include drive-up storage lockers, a manager's unit, and a rental office totaling 77,418 square feet.

Pages 8 and 10 Draft Initial Study; REPLACE Figure 3.0-1 on page 8 and REPLACE Figure 3.0-3 on page 10 as follows:



CONCEPTUAL GROUND FLOOR RESIDENTIAL BUILDING SITE PLAN

FIGURE 3.0-1



NORTH ELEVATION



SOUTH ELEVATION



WEST ELEVATION



EAST ELEVATION

Source: Van Meter Williams Pollack LLP, December 22, 2022.

Page 12 Draft Initial Study; text in the last sentence of the first paragraph in Section 3.1 has been REVISED as follows:

The residential parking garage would be located on the San Rafael Avenue and Terra Bella Avenue frontage, providing two levels of parking with a total of ~~105~~ 96 parking stalls for the apartment units.

Page 12 Draft Initial Study; text in the second to last sentence of the last paragraph in Section 3.1 has been REVISED as follows:

The project proposes a Transportation Demand Management (TDM) plan to reduce the amount of residential parking on-site from 137 parking spaces required by the City under the State Density Bonus Law to ~~105~~ 96 spaces.

Page 13 Draft Initial Study; text in the second paragraph in Section 3.1.2 has been REVISED as follows:

As mentioned above, the parking garage would provide ~~105~~ 96 total parking spaces and include 49 spaces in the first level garage and 47 spaces in the second level garage. ~~a combination of traditional surface parking spaces and mechanical parking stalls that allow for the stacking of parked cars. These mechanical lift parking stalls would provide up to two parking spaces per stall by stacking two cars vertically. The ground floor level of the parking garage would utilize six of the “puzzle stacker” arrangements to provide 25 parking spaces. The other 80 stalls would be provided as standard surface parking stalls, of which~~ the parking spaces would be Americans with Disabilities Act (ADA) accessible. The garage would provide 16 electric vehicle charging stations and ~~89~~ 80 (EV-ready) stalls that would be pre-wired to be converted into electric vehicle charging stations in the future.

Page 16 Draft Initial Study; text in the last sentence in the first paragraph in Section 3.3 has been REVISED as follows:

The project would plant 19 replacement trees for a total project tree count of ~~125~~ 135 trees (81 trees for 1040 Terra Bella and 54 trees for 1020 Terra Bella) in areas surrounding each of the buildings and in the surface parking lot for the storage facility buildings.

Page 57 Draft Initial Study; text in the first paragraph of COA BIO-1.1 under Impact BIO-1 in Section 4.4.2 has been REVISED as follows:

COA BIO-1.1: Preconstruction Nesting Bird Survey: To the extent practicable, vegetation removal and construction activities shall be performed from September 1 through January 31 to avoid the general nesting period for birds. If construction or vegetation removal cannot be performed during this period, preconstruction surveys shall be performed no more than ~~two~~ seven days prior to construction activities to locate any active nests as follows:

Page 59 Draft Initial Study; text in the first paragraph and first bullet point in COA BIO-5.1 under Impact BIO-5, Tree Preservation Ordinance in Section 4.4.2 has been REVISED as follows:

As discussed in Section 3.0, the proposed project would remove two on-site trees and 15 street trees and would plant ~~125~~ 135 new trees on-site (81 trees at 1040 Terra Bella and 54 trees at 1020 Terra Bella). The proposed project would implement the following City standard conditions of approval to comply with the City's Tree Preservation Ordinance.

City Standard Conditions of Approval

COA BIO-5.1: The project shall implement the following measures:

- **Replacement:** The applicant shall offset the loss of each tree with at least one ~~19-replacement trees, for a minimum replacement ratio of 1:1 (one removed tree: one replacement tree)~~ total of 125 on-site trees. The project proposes to plant 135 on-site trees (81 trees for 1040 Terra Bella and 54 trees at 1020 Terra Bella). Each replacement tree shall be no smaller than a 24-inch box and shall be noted on the landscape plans submitted for building permit review as ~~Heritage~~ replacement trees.

Page 64 Draft Initial Study; text in the second to last sentence of the first paragraph under Section 4.5.1.2, Historic Resources has been REVISED as follows:

The project site is currently development with a single-family residence construction in 1953 and 18 single-story storage buildings constructed in 1974 ~~1953~~.

Page 73 Draft Initial Study; text in the first sentence of the last paragraph under Impact EN-1 in Section 4.6.2 has been REVISED as follows:

Furthermore, the project contains bicycle parking, is serviced by public transit and bicycle facilities that would promote alternative modes of transportation, which would reduce of use gasoline, and would plant ~~125~~ 135 trees providing shade.

Page 90 Draft Initial Study; text in the last sentence of the second bullet under Impact GHG-1, Operation in Section 4.8.2 has been REVISED as follows:

Furthermore, the project has access to public transit and bicycle facilities and proposes to plant ~~125~~ 135 trees (increase of ~~124~~ 131 trees compared to existing conditions) that would provide shade.

Page 97 Draft Initial Study; text in the first paragraph under Section 4.9.1.2, Site History has been REVISED as follows:

The project site, located along U.S. 101, has historically been used as agricultural land. In 1953 ~~the early 1960s~~, a single-family residence (which has since been converted into commercial office space), a detached garage, and a shed were constructed on the 1020 Terra Bella Avenue parcel. The existing storage facility on the 1040 Terra Bella Avenue parcel was constructed by 1974.

Page 98 Draft Initial Study; text after the first paragraph under Section 4.9.1.2, On-Site Contamination has been ADDED as follows:

California banned lead as a fuel additive in 1992. Due to the site's proximity to U.S. 101, the on-site soils closet to U.S. 101 may contain aerielly deposited lead (ADL) from automobiles driving along U.S. 101.

Page 98 Draft Initial Study; text in the second sentence of the second paragraph in Section 4.9.1.2 has been REVISED as follows:

The residence was built in 1953 ~~the early 1960s~~ and the storage facility buildings were constructed by 1974.

Page 100 Draft Initial Study; text in the first sentence under Impact HAZ-2, On-Site Soils and Groundwater in Section 4.9.2 has been ADDED as follows:

The project site soil could be contaminated with agricultural chemicals due to its historical use as agricultural land, ADL due to the site's proximity to U.S 101, and lead due to the age of the building on-site.

Page 100 Draft Initial Study; text in the second bullet point of COA HAZ-2.1 in Section 4.9.2 has been ADDED as follows:

- **Soil Management Plan:** Prepare a soil and groundwater management plan for review and approval by the Santa Clara County Department of Environmental Health (SCCDEH). Proof of approval or actions for site work required by the SCCDEH must be provided to the Building Inspection Division prior to the issuance of any demolition or building permits. Specifically for the proposed project, the soil and groundwater management plan shall address, but not limited to, potential elevated levels of organochlorine pesticides, LBP, and ADL contamination in soils and petroleum hydrocarbons in groundwater on-site.

Page 140 Draft Initial Study; text in the second to last sentence of the first paragraph under Section 4.14.1.2 has been ADDED as follows:

The project site is currently developed with one uninhabitable single-story residence and 77,418 square feet of commercial space including habitable one manager's unit, therefore, the existing population on-site is approximately two residences.

Pages 140 and 141 Draft Initial Study; text in the second paragraph under Impact POP-1 in Section 4.14.2 has been REVISED as follows:

The project site currently has a General Plan designation of General Industrial, which does not allow residential development and, therefore, was not projected to accommodate any net population or housing growth at the buildout of the General Plan. The proposed project would construct a 108-unit residential building, and potentially replace the existing—an additional unit for the storage facility manager in Building 1 of the proposed storage facility, which would result in 109 units and approximately ~~256~~ 254 new residents more than existing conditions and what was assumed in the 2030 General Plan buildout (approximately 0.2 percent more than assumed from the General Plan buildout).^{79,80} Although the project would result in an incremental increase in population beyond what was anticipated in the General Plan, the 0.2 percent increase in population would not be a substantial increase in unplanned population.

Page 141 Draft Initial Study; footnote 79 has been DELETED and footnote 80 has been REVISED as follows:

⁷⁹ ~~The number of residents was estimated assuming a citywide average 2.3 residents per household. California Department of Finance. Table 2: E-5 City/County Population and Housing Estimates, for January 1, 2021-2022. May 2022.~~

⁸⁰ The population estimate uses the City's average of 2.35 persons per household for all of the dwelling units, including the ~~two~~ manager's units.

Page 141 Draft Initial Study; text in the first and second sentences of the paragraph under Impact POP-2 in Section 4.14.2 have been REVISED as follows:

As discussed in Section 4.14.1.2, there is one ~~are no housing units or habitable~~ manager's unit ~~residences~~ on-site, which would be replaced by the project. There is also a safe parking lot located on a portion of the project site for individuals who sleep overnight in their personal vehicles and park in the surface lot overnight.

Page 146 Draft Initial Study; text in the second sentence under Impact PS-1 in Section 4.15.2 has been REVISED as follows:

Compared to existing conditions, the net addition of up to 108 ~~109~~ residential units (which would generate approximately 254 ~~256~~ net new residents) and expansion of the storage facility would incrementally increase demand for fire protection services in the City.

Page 146 Draft Initial Study; text in the first and third sentences of the paragraph under Impact PS-2 in Section 4.15.2 have been revised as follows:

As discussed in Impact PS-1, the project would result in an net increase of up to 108 ~~109~~ residential units and approximately 254 ~~256~~ net new residents. The project would also expand the existing storage facility. The addition of approximately 254 ~~256~~ new residents and additional customers generated by the storage facility would result in an incremental increase in the demand for police protection services in Mountain View.

Page 147 Draft Initial Study; text in the first paragraph under Impact PS-3 in Section 4.15.2 has been REVISED as follows:

The project would develop the net addition of up to 108 ~~109~~ residential units (~~including two manager's units~~). Based on the most recently available student generation rates provided by MVWSD and MVLASD, the project would generate approximately 60 net new ~~64~~ elementary and middle school students and approximately 34 net new high school students.⁸⁶

Page 147 Draft Initial Study; text in the second sentence of the second paragraph under Impact PS-3 in Section 4.15.2 has been REVISED as follows:

Therefore, the addition of 60 ~~64~~ elementary and middle school students would not require the expansion of those schools or construction of any new school facilities.

Page 148 Draft Initial Study; text in the second sentence of the paragraph under Impact PS-5 in Section 4.15.2 has been REVISED as follows:

The single library in the City currently serves the existing population of 83,864, and the addition of the approximately 254 ~~256~~ project residents would result in a potential increase in patrons of less than 0.3 percent.

Page 150 Draft Initial Study; text in the first sentence of the first paragraph under Impact REC-1 in Section 4.16.2 has been REVISED as follows:

As discussed in Section 4.15, the proposed project would construct up to a net addition of 108 ~~109~~ residential units which would result in an increase in population that would use park facilities.

Page 152 Draft Initial Study; text in the first paragraph in Section 4.17 has been REVISED as follows:

The following is based, in part, on a Transportation Analysis (TA) prepared by Hexagon Transportation Consultants, Inc. dated ~~November 22, 2022~~ January 23, 2023, and a TDM Plan prepared by Nelson Nygaard prepared in ~~September 2022~~ dated January 2023. ~~This~~ These reports ~~is~~ are attached as Appendix K and Appendix L, respectively, to this Initial Study.

Page 163 Draft Initial Study; text in the second sentence of the first paragraph under Impact TRN-2 in Section 4.17.2 has been REVISED as follows:

The project would construct a 108-100 percent affordable (excluding manager's units) residential building ~~units (excluding manager's units)~~ and two storage facility buildings totaling of 408,964 square feet.

Page 172 Draft Initial Study; text in the second paragraph under Section 4.19.1.2 has been ADDED as follows:

The project site is currently developed with 18 storage facility buildings (including an on-site rental office and a manager's unit) and one dilapidated, uninhabitable residence. These land uses combined have an estimated water demand of approximately 3,980 gallons per day (gpd). The existing water use is based on parcel-level demand adopted from the City's InfoWater model developed as part of the 2010 Water Master Plan. The demand in the model was calibrated against water billing records from 2005 and 2006, as explained in the 2010 Water Master Plan (refer to Appendix M for additional information about the modeled demand). Water is supplied to the project site by existing 12-inch water mains in Terra Bella Avenue and San Rafael Avenue and an eight-inch water main in Linda Vista Avenue.

Water supply is analyzed cumulatively based on the buildout of the 2030 General Plan land uses and implementation of recommended Capital Improvement Projects (CIPs). The Average Daily Demand (ADD) under future cumulative conditions (2030 General Plan buildout) is estimated to be approximately 18.01 mgd. According to the Utility Impact Study conducted for this project, the ~~project~~ demand for potable water on-site under future cumulative conditions (2030 General Plan buildout) would be approximately 5,370 gpd. With implementation of the project, the water demand on-site would increase from approximately 5,370 to 35,438 gpd, which results in a net increase of 30,068 gpd (approximately 0.0299 mgd). Water unit duty factors used to calculate the project's water use were developed as part of the North Bayshore Precise Plan Phase II from water meter records of recent developments throughout the City. The unit duty factors applied are representative of the proposed uses. The City does not currently have a specific water demand factor for storage buildings, therefore, the City's closest water demand factor of Industrial was used for calculating the storage facility's water use, consistent with studies the City completed for other similar projects (refer to Appendix M for additional information about the methodology used). The storage facility would make up 24,638 gpd (approximately 70 percent) of the water demand and the residential building would make up 10,800 gpd (approximately 30 percent) of the water demand.

Appendix B Appendix B has been REPLACED with the following:

ARBORIST REPORT

February 26, 2021
Revised August 11, 2021
Revised December 20, 2021
Revised March 7, 2022
Revised December 12, 2022
Revised December 19, 2022
5899.00

PROJECT

1020 Terra Bella Ave.
Mountain View, CA

PREPARED FOR

Alta Housing

PREPARED BY

HMH
1570 Oakland Road
San Jose, CA 95131
William Sowa
ISA Certified Arborist #WE-12270A



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INTRODUCTION AND OVERVIEW

HMH was contracted to complete a survey, assessment and arborist report for trees located within the limit of work illustrated on Exhibit A. The project site encompasses parts of two adjacent parcels, totaling approximately 1 acre. One parcel is currently a Public Storage property and the other currently has a house. The 101 Freeway is to the north of the site and there are primarily commercial parcels to the east, south and west of the site. Our scope of services includes locating, measuring DBH, assessing, and photographing the condition of all trees within the limit of work. Disposition and health recommendations are based on current site conditions. Site development/design may affect the preservation suitability.

METHODOLOGY

Our tree survey work is a deliberate and systematic methodology for cataloging trees on site:

1. Identify each tree species.
2. Note each tree's location on a site map.
3. Measure each trunk circumference at 4.5' above grade per ISA standards.
4. Evaluate the health and structure of each tree using the following numerical standard:
 - 5 - A healthy, vigorous tree, reasonably free of disease, with good structure and form typical of the species.*
 - 4 - A tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.*
 - 3 - A tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may that might be mitigated with care.*
 - 2 - A tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.*
 - 1 - A tree in severe decline, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated.*
 - 0 - Tree is dead.*

SUMMARY OF FINDINGS

HMH conducted a tree inventory of 12 trees located within the limit of work outlined in Exhibit A. Two (2) of the trees inventoried are classified as heritage trees under the City of Mountain View Tree Removal permit. The trees were initially evaluated on 2/22/2021 and re-evaluated on 12/6/2022.

A heritage tree is:

Single Trunk - 48 inches or more in circumference at 4 ½ feet above ground; or

Multi-trunk - which has major branches below fifty-four (54) inches above the natural grade with a circumference of forty-eight (48) inches measured just below the first major trunk fork.; or
Any Quercus (oak), Sequoia (redwood) or Cedrus (cedar) with a circumference of 12" measured at 4 ½ feet above natural grade; or

A tree or grove of trees designated as "heritage" by the City Council.

Table 1 - Tree Quantity Summary summarizes tree quantities by both species and size. Each species that was inventoried as part of this scope is included. This is a useful tool for analyzing the mixture of trees as part of the project. The size table is useful when calculating mitigation requirements in the case of tree removal as well as aiding in determining tree maturity.

Table 2 - Tree Evaluation Summary lists each tree number, botanical name, common name, DBH, circumference, ordinance trees, health rating, preservation suitability, general notes and observations and recommendations.

See Exhibit A for Existing Tree Locations

See Table 1 for Tree Quantity Summary by species and size.

See Table 2 for Tree Evaluation Summary for sizes, notes and recommendations regarding each tree.

GENERAL OBSERVATIONS AND RECOMMENDATIONS

For tree removal justification, please see Tree Disposition Plan.

Species: *Corymbia ficifolia* (Red Flowering Gum)

Quantity: 2

Tree Number: 6, 8

Observations / Recommendations:

The Red Gum trees are mature specimens and are in good shape and are a significant canopy tree at the front of the Public Storage site. The internal branching structure of these trees could benefit from a structural pruning effort. These trees, as all along the street frontage, are under power lines that could be problematic long term if topping occurs. These trees are not good candidates for transplanting. Tree #6 is being removed due to site design.

Upon reviewing the civil plan set dated 12/12/2022 and the landscape plan set dated 9/22/2022, here are recommendations to consider for retaining Tree #8 and to lessen the impact of construction:

- Follow the City of Mountain View tree protection specifications.
- It is best to avoid installing utility lines underneath the dripline of the tree. But it appears a storm drain line will be installed approximately 7-1/2 feet from the trunk. It is important to follow standard best practices such as avoiding mechanical trenching or excavation. The use of an air spade or hand excavation should be done. If root pruning is needed this should be done with a clean cut and the area around the cut should be kept moist until it can be backfilled. If there are roots larger than 2", tunnel underneath with horizontal boring.
- Avoid constructing decking/footings underneath the dripline of the tree
- There is a new sidewalk approximately almost 6 feet from the trunk. Mechanical trenching and excavation should be avoided. An air spade or hand excavation should be done to for the construction area. If root pruning is needed this should be done with a clean cut and the area around the cut should be kept moist until it can be backfilled.
- New plantings underneath the dripline of the tree should match the WUCOLS water use rating, which is low.
- It appears the new building will be further from the tree than the existing building. Generally the root structure has probably developed to avoid this area and the new construction will not greatly affect the existing root system. The structural plans should be reviewed by the design team to see the extent of the building's footings under the dripline of the tree and consider alternatives, if possible.

Species: *Magnolia grandiflora* (Southern Magnolia)

Quantity: 1

Tree Number: 2

Observations / Recommendations:

The Magnolia tree is a younger specimen and is in good to moderate shape. It is located on the east site of the Public Storage site on San Rafael Avenue. Tree number two is under the powerlines which could be an issue long term if topping occurs. As Magnolia are a moderate water use tree ensuring that adequate irrigation is being applied would help the vigor of these trees. This tree is not a good candidate for transplanting. Tree #2 is being removed due to site design.

Species: *Pistacia chinensis* (Chinese Pistache)

Quantity: 5

Tree Number: 3, 4, 9, 10, 11

Observations / Recommendations:

The Pistache trees are younger specimens and are in good shape. These trees, as all along the street frontage, are under power lines that could be problematic long term if topping occurs. These trees are not good candidates for transplanting. These trees are being removed due to site design.

Species: *Platanus x hispanica* (London Plane Tree)

Quantity: 1

Tree Number: 7

Observations / Recommendations:

The London Plane Tree is a mature specimen and is in good shape. This tree is also along the street frontage, are under power lines that could be problematic long term if topping occurs. There is also some crowding with the adjacent Eucalyptus which could be a conflict for space in the future. This tree is not a good candidate for transplanting. Tree #7 is being removed due to site design.

Species: *Prunus caroliniana* (Carolina Laurel Cherry)

Quantity: 1

Tree Number: 5

Observations / Recommendations:

The Carolina Cherry is a volunteer multi-stem shrub / tree growing under the Red flowering gum tree. This tree does not have a proper tree structure and should be removed. This tree is not a good candidate for transplanting. Tree #5 is being removed due to arborist recommendation.

Species: *Pyrus calleryana* (Callery Pear)

Quantity: 2

Tree Number: 12, 13

Observations / Recommendations:

The Pear trees are in good shape and in the front of the Public Storage office. They are younger specimens and with proper care and maintenance will continue to thrive. Pear trees are susceptible to fire blight so proper pruning practices should be taken into consideration to limit the spread if infected. These trees are not good candidates for transplanting. These trees are being removed due to site design.

RECOMMENDATIONS FOR TREE PROTECTION DURING CONSTRUCTION

Site preparation: All existing trees shall be fenced off 10' beyond the outside the drip line (foliar spread) of the tree. Alternatively, where this is not feasible, fence to the drip line of the tree. Where fencing is not possible, the trunk shall be protected straw waddle and orange snow fencing. The fence should be a minimum of six feet high, made of pig wire with steel stakes or any material superior in quality, such as cyclone fencing. Tree protection zone sign shall be affixed to fencing at appropriate intervals as determined by the arborist on site. If the fence is within the drip line of the trees, the foliar fringe shall be raised to offset the chance of limb breakage from construction equipment encroaching within the drip line. All contractors, subcontractors and other personnel shall be warned that encroachment within the fenced area is forbidden without the consent of the certified arborist on the job. This includes, but is not limited to, storage of lumber and other materials, disposal of paints, solvents or other noxious materials, parked cars, grading equipment or other heavy equipment. Penalties, based on the cost of remedial repairs and the evaluation guide published by the international society of arboriculture, shall be assessed for damages to the trees. Please see City of Mountain View tree protection specifications.

Grading/excavating: All grading plans that specify grading within the drip line of any tree, or within the distance from the trunk as outlined in the site preparation section above when said distance is outside the drip line, shall first be reviewed by a certified arborist. Provisions for aeration, drainage, pruning, tunneling beneath roots, root pruning or other necessary actions to protect the trees shall be outlined by an arborist. If trenching is necessary within the area as described above, said trenching shall be undertaken by hand labor and dug directly beneath the trunk of the tree. All roots 2 inches or larger shall be tunneled under and other roots shall be cut smoothly to the trunk side of the trench. The trunk side should be draped immediately with two layers of untreated burlap to a depth of 3 feet from the surface. The burlap shall be soaked nightly and left in place until the trench is back filled to the original level. An arborist shall examine the trench prior to back filling to ascertain the number and size of roots cut, so as to suggest the necessary remedial repairs.

Remedial repairs: An arborist shall have the responsibility of observing all ongoing activities that may affect the trees, and prescribing necessary remedial work to ensure the health and stability of the trees. This includes, but is not limited to, all arborist activities brought out in the previous sections. In addition, pruning, as outlined in the "pruning standards" of the western chapter of the International Society of Arboriculture, shall be prescribed as necessary. Fertilizing, aeration, irrigation, pest control and other activities shall be prescribed according to the tree needs, local site requirements, and state agricultural pest control laws. All specifications shall be in writing. For pest control operations, consult the local county agricultural commissioner's office for individuals licensed as pest control advisors or pest control operators.

Final inspection: Upon completion of the project, the arborist shall review all work undertaken that may impact the existing trees. Special attention shall be given to cuts and fills, compacting, drainage, pruning and future remedial work. An arborist should submit a final report in writing outlining the ongoing remedial care following the final inspection.

MAINTENANCE RECOMMENDATIONS FOR TREES TO REMAIN

Regular maintenance, designed to promote plant health and vigor, ensures longevity of existing trees. Regular inspections and the necessary follow-up care of mulching, fertilizing, and pruning, can detect problems and correct them before they become damaging or fatal.

Tree Inspection: Regular inspections of mature trees at least once a year can prevent or reduce the severity of future disease, insect, and environmental problems. During tree inspection, four characteristics of tree vigor should be examined: new leaves or buds, leaf size, twig growth, and absence of crown dieback (gradual death of the upper part of the tree). A reduction in the extension of shoots (new growing parts), such as buds or new leaves, is a fairly reliable cue that the tree's health has recently changed. Growth of the shoots over the past three years may be compared to determine whether there is a reduction in the tree's typical growth pattern. Further signs of poor tree health are trunk decay, crown dieback, or both. These symptoms often indicate problems that began several years before. Loose bark or deformed growths, such as trunk conks (mushrooms), are common signs of stem decay. Any abnormalities found during these inspections, including insect activity and spotted, deformed, discolored, or dead leaves and twigs, should be noted and observed closely.

Mulching: Mulch, or decomposed organic material, placed over the root zone of a tree reduces environmental stress by providing a root environment that is cooler and contains more moisture than the surrounding soil. Mulch can also prevent mechanical damage by keeping machines such as lawn mowers and string trimmers away from the tree's base. Furthermore, mulch reduces competition from surrounding weeds and turf. To be most effective, mulch should be placed 2 to 4 inches deep and cover the entire root system, which may be as far as 2 or 3 times the diameter of the branch spread of the tree. If the area and activities happening around the tree do not permit the entire area to be mulched, it is recommended that as much of the area under the drip line of the tree is mulched as possible. When placing mulch, care should be taken not to cover the actual trunk of the tree. This mulch-free area, 1 to 2 inches wide at the base, is sufficient to avoid moist bark conditions and prevent trunk decay. An organic mulch layer 2 to 4 inches deep of loosely packed shredded leaves, pine straw, peat moss, or composted wood chips is adequate. Plastic should not be used as it interferes with the exchange of gases between soil and air, which inhibits root growth. Thicker mulch layers, 5 to 6 inches deep or greater, may also inhibit gas exchange.

Fertilization: Trees require certain nutrients (essential elements) to function and grow. Urban landscape trees may be growing in soils that do not contain sufficient available nutrients for satisfactory growth and development. In certain situations, it may be necessary to fertilize to improve plant vigor. Fertilizing a tree can improve growth; however, if fertilizer is not applied wisely, it may not benefit the tree at all and may even adversely affect the tree. Mature trees making satisfactory growth may not require fertilization. When considering supplemental fertilizer, it is important to consider nutrients deficiencies and how and when to amend the deficiencies. Soil conditions, especially pH and organic matter content, vary greatly, making the proper selection and use of fertilizer a somewhat complex process. To that end, it is recommended that the soil be tested for nutrient content. A soil testing laboratory can give advice on application rates, timing, and the best blend of fertilizer for each tree and other landscape plants on site. Mature trees have expansive root systems that extend from 2 to 3 times the size of the leaf canopy. A major portion of actively growing roots is located outside the tree's drip line. Understanding the actual size and extent of a tree's root system before applying fertilizer is paramount to determine quantity, type and rate at which to best apply fertilizer. Always follow manufacturer recommendations for use and application.

Pruning: Pruning is often desirable or necessary to remove dead, diseased, or insect-infested branches and to improve tree structure, enhance vigor, or maintain safety. Because each cut has the potential to change the growth of (or cause damage to) a tree, no branch should be removed without reason. Removing foliage from a tree has two distinct effects on growth: (1) it reduces photosynthesis and, (2) it may reduce overall growth. Pruning should always be performed sparingly. Caution must be taken not to over-prune as a tree may not be able to gather and process enough sunlight to survive. Pruning mature trees may require special equipment, training, and experience. Arborists are equipped to provide a variety of services to assist in performing the job safely and reducing risk of personal injury and property damage (See *also ANSI A300 Part 1 Pruning Standards*- <https://www.tcia.org>).

Removal: There are circumstances when removal is necessary. An arborist can help decide whether or not a tree should be removed. Professionally trained arborists have the skills and equipment to safely and efficiently remove trees. Removal is recommended when a tree: (1) is dead, dying, or considered irreparably hazardous; (2) is causing an obstruction or is crowding and causing harm to other trees and the situation is impossible to correct through pruning; (3) is to be replaced by a more suitable specimen, and; (4) should be removed to allow for construction. Pruning or removing trees, especially large trees, can be dangerous work. It should be performed only by those trained and equipped to work safely in trees.

TERMS AND CONDITIONS

The following terms and conditions apply to all oral and written reports and correspondence pertaining to consultations, inspections and activities of HMM.

1. The scope of any report or other correspondence is limited to the trees and conditions specifically mentioned in those reports and correspondence. HMM assumes no liability for the failure of trees or parts of trees, either inspected or otherwise. HMM assumes no responsibility to report on the condition of any tree or landscape feature not specifically requested by the named client.
2. No tree described in this report was climbed, unless otherwise stated. HMM does not take responsibility for any defects, which could have only been discovered by climbing. A full root collar inspection, consisting of excavating the soil around the tree to uncover the root collar and major buttress roots was not performed unless otherwise stated. HMM does not take responsibility for any root defects, which could only have been discovered by such an inspection.
3. HMM shall not be required to provide further documentation, give testimony, be deposed, or attend court by reason of this appraisal or report unless subsequent contractual arrangements are made, including payment of additional fees for such services as described by HMM or in the schedule of fees or contract.
4. HMM guarantees no warranty, either expressed or implied, as to the suitability of the information contained in the reports for any reason. It is the responsibility of the client to determine applicability to his/her case.
5. Any report and the values, observations and recommendations expressed therein represent the professional opinion of HMM, and the fee for services is in no manner contingent upon the reporting of a specified value nor upon any particular finding to be reported.
6. Any photographs, diagrams, graphs, sketches or other graphic material included in any report, being intended solely as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys, unless otherwise noted in the report. Any reproductions of graphic material or the work produced by other persons, is intended solely for clarification and ease of reference. Inclusion of said information does not constitute a representation by HMM as to the sufficiency or accuracy of that information.
7. Trees can be managed, but they cannot be controlled. To live near trees is to accept some degree of risk. The only way to eliminate all risk associated with trees is to eliminate all trees.



NOTE: ALL TREE LOCATIONS MUST BE VERIFIED WITH IN FIELD SURVEY

TABLE 1 - TREE QUANTITY SUMMARY

Tree Quantity by Species		
Species	Quantity	% of Site
Corymbia ficifolia	2	17%
Magnolia grandiflora	1	8%
Pistacia chinensis	5	42%
Platanus x hispanica	1	8%
Prunus caroliniana	1	8%
Pyrus calleryana	2	17%
Total Trees	12	100%

TABLE 2 - TREE EVALUATION SUMMARY

Prepared By: William Sowa ISA Certified Arborist WE-12270A

DBH MEASUREMENT HEIGHT: 54"

Date of Evaluation: 2/22/2021 and 12/6/2022

Suitability for Preservation is based on the following

Good - Trees with good health and structural stability that have the potential for longevity at the site.

Moderate - Trees in somewhat declining health and/or exhibits structural defects that cannot be abated with treatment. Trees will require more intense management and will have a shorter lifespan than those in the 'Good' category.

Poor - Trees in poor health or with significant structural defects that cannot be mitigated. Tree is expected to decline, regardless of treatment.

Health Rating

5 A healthy, vigorous tree, reasonably free of disease, with good structure and form typical of the species.

4 A tree with slight decline in vigor, small amount of twig dieback, minor structural defects that could be corrected.

3 A tree with moderate vigor, moderate twig and small branch dieback, thinning of crown, poor leaf color, moderate structural defects that may that might be mitigated with care.

2 A tree in decline, epicormic growth, extensive dieback of medium to large branches, significant structural defects that cannot be abated.

1 A tree in severe decline, dieback of scaffold branches and or trunk, mostly epicormic growth; extensive structural defects that cannot be abated.

0 Tree is dead.

Abbreviations and Definitions

CD Codominant branches Forked branches nearly the same size in diameter, arising from a common junction an lacking a normal branch union.

CDB Dieback in Crown Condition where branches in the tree crown die from the tips toward the center.

CR CR Tree is bounded closely by one or more of the following: structure, tree, Etc.

D Decline Tree shows obvious signs of decline, which may be indicative of the presence of multiple biotic and abiotic disorders.

DBH Diameter at Breast Height Measurement of tree diameter in inches. Measurement height varies by City and is noted above.

EG Epicormic Growth Watersprouting on trunk and main leaders. Typically indicative of tree stress.

EH Exposed Heartwood Exposure of the tree's heartwood is typically seen as an open wound that leaves a tree more susceptible to pathogens, disease or infection.

H Hazardous A tree that in it's current condition, presents a hazard.

HD Headed Poor pruning practice of cutting back branches. Often practiced under utility lines to limit tree height.

IB Included Bark Structural defect where bark is included between the branch attachment so the wood can't join. Such defect can have a higher probability of failure.

LC Low crotch Multiple central leaders originating below the DBH measurement site.

LN Leaning Tree Tree leaning, see notes for severity.

ML Multiple Leaders More than one upright primary stem

PT Phototropism Tree exhibits phototropic growth habits. Reduced trunk taper, misshapen trunk and canopy growth are examples of this growth habit.

S Suckers Shoot arising from the roots.

SD Structural Defects Naturally or secondary conditions including cavities, poor branch attachments, cracks, or decayed wood in any part of the tree that may contribute to structural failure.

SE Severe Indicates the severity of the following term.

SL Slight Indicates the mildness of the following term.

SR Surface Roots Roots visible at finished grade.

ST Stress Environmental factor inhibiting regular tree growth. Includes drought, salty soils, nitrogen and other nutrient deficiencies in the soil.

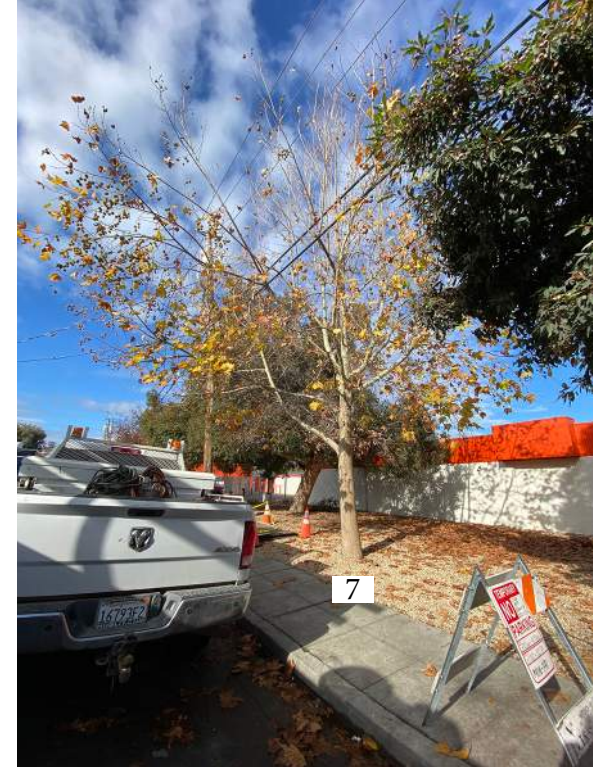
WU Weak Union Weak union or fork in tree branching structure.

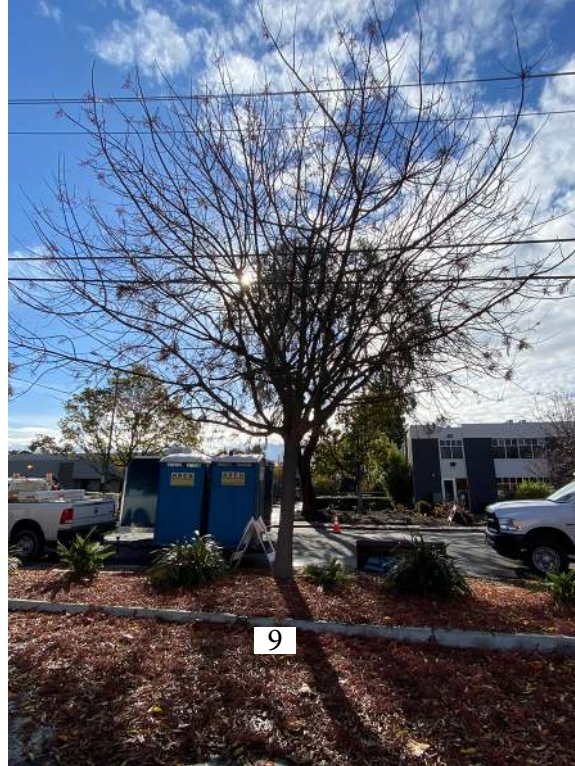
Heritage Tree

Heritage Trees. A heritage tree is: Single Trunk - 48 inches or more in circumference at 4 ½ feet above natural grade; or Multi-trunk - The combined measurements of each trunk circumference add up to 48 inches or more, measured just below the first major trunk fork; or three species of trees: Quercus (oak), Sequoia (redwood) or Cedrus (cedar) with a circumference of 12" measured at 4 ½ feet above natural grade; or a grove(s) of trees designated as "heritage" by the City Council.

TREE #	BOTANICAL NAME	COMMON NAME	DBH (INCHES)	CIRCUMF- ERENCE (INCHES)	HERITAGE TREE	HEALTH	PRESERVATION SUITABILITY	ONSITE OR ROW	REMOVE/RETAIN/ RELOCATE	NOTES
2	<i>Magnolia grandiflora</i>	Southern Magnolia	5.8	18	NO	4	Moderate	ROW	REMOVE	IB, SD, CR by powerlines
3	<i>Pistacia chinensis</i>	Chinese Pistache	7.2	23	NO	4	Good	ROW	REMOVE	CR by powerlines
4	<i>Pistacia chinensis</i>	Chinese Pistache	5.7	18	NO	4	Good	ROW	REMOVE	CR by powerlines
5	<i>Prunus caroliniana</i>	Carolina Laurel Cherry	13.5	42	NO	3	Poor	ROW	REMOVE	MULTI-TRUNK, CR by #6
6	<i>Corymbia ficifolia</i>	Red Flowering Gum	32.0	100	YES	3	Moderate	ROW	REMOVE	MULTI-TRUNK, CD, SD, ST, sap leaking, CR by powerlines
7	<i>Platanus x hispanica</i>	London Plane Tree	11.7	37	NO	4	Good	ROW	REMOVE	CR by powerlines
8	<i>Corymbia ficifolia</i>	Red Flowering Gum	23.2	73	YES	3	Moderate	ONSITE	RETAIN	LN, SD, IB, sap leaking, CR by powerlines
9	<i>Pistacia chinensis</i>	Chinese Pistache	9.0	28	NO	4	Good	ROW	REMOVE	SD, IB, CR by powerlines
10	<i>Pistacia chinensis</i>	Chinese Pistache	10.0	31	NO	4	Good	ROW	REMOVE	CR by powerlines
11	<i>Pistacia chinensis</i>	Chinese Pistache	7.9	25	NO	4	Good	ROW	REMOVE	CR by powerlines
12	<i>Pyrus calleryana</i>	Callery Pear	9.3	29	NO	4	Good	ONSITE	REMOVE	SD
13	<i>Pyrus calleryana</i>	Callery Pear	7.7	24	NO	3	Good	ONSITE	REMOVE	SD









Appendix K Appendix K has been REPLACED with the following:



HEXAGON TRANSPORTATION CONSULTANTS, INC.



1020-1040 Terra Bella Avenue

Transportation Analysis



Prepared for:

David J. Powers & Associates

January 23, 2023



Hexagon Transportation Consultants, Inc.

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Hexagon Job Number: 22DC05

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Areawide Circulation Plans Corridor Studies Pavement Delineation Plans Traffic Handling Plans Impact Fees Interchange Analysis Parking
Transportation Planning Traffic Calming Traffic Control Plans Traffic Simulation Traffic Impact Analysis Traffic Signal Design Travel Demand Forecasting

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Executive Summary

This report presents the results of the transportation analysis conducted for the proposed development at 1020 & 1040 Terra Bella Avenue in Mountain View, California. The existing project site contains approximately 77,418 square feet (s.f.) of drive up storage lockers, a rental office, and a non-habitable single family home most recently used as an office. The project would redevelop the site by replacing the existing buildings on-site with 108 units of affordable housing and a 408,964 s.f. Public Storage facility. Access to the affordable housing site would be provided via a driveway on Terra Bella Avenue and a driveway on San Rafael Avenue. Access to the public storage site would be provided via driveways on Linda Vista Avenue and on San Rafael Avenue.

Transportation Analysis Scope

The transportation analysis was prepared following the standards and methodologies set forth by the City of Mountain View, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA).

CEQA Transportation Analysis Scope

The CEQA transportation analysis for the project consists of a project-level VMT impact analysis that is evaluated against the City of Mountain View's Vehicle Miles Traveled (VMT) Policy. The City of Mountain View's VMT Policy describes screening criteria based on a project description, characteristics, and/or locations of projects that would not exceed the CEQA thresholds of significance. If a project meets the screening criteria, it is then presumed that the project would result in a less-than-significant VMT impact, and a VMT analysis is not required.

Multimodal Transportation Analysis Scope

The Multimodal Transportation Analysis (MTA) includes an evaluation of weekday AM and PM peak hour operational issues (queuing, signal operations, and potential multi-modal issues) at intersections in the general vicinity of the project site, an evaluation of the transit, bicycle, and pedestrian access and circulation, and a review of site access, on-site circulation, and parking. Operational deficiencies identified as part of the MTA are not considered impacts per CEQA guidelines.

CEQA VMT Analysis

Evaluation of Screening Criteria

The project consists of 108 units of affordable housing and a 408,964 s.f. Public Storage facility. Since 100% of the residential units would be affordable, the residential portion of the project is presumed to result in a less-than-significant transportation impact, and a detailed VMT analysis is not required.

Project Level VMT Analysis

There are currently 13 similar personal storage facilities in Mountain View and Sunnyvale. The average distance of these facilities from the mid-point of Mountain View (assumed to be City Hall) is 2.1 miles. The distance between the project site and the mid-point of Mountain View is 1.4 miles. Therefore, the project would reduce the average trip length for residents to access public storage facilities, and its impact to VMT would be less-than-significant.

Multimodal Transportation Analysis

Trip Generation

After applying the ITE trip rates and trip credits from existing uses, it is estimated that the project would generate 996 daily vehicle trips, with 68 trips (29 inbound and 39 outbound) occurring during the AM peak hour and 98 trips (52 inbound and 46 outbound) occurring during the PM peak hour.

Intersection Operations

The operations analysis shows that most of the study intersections are projected to operate at acceptable levels of service, under background conditions and background plus project conditions during both the AM and PM peak hours. The intersection of Shoreline Boulevard & US 101 Northbound Off-Ramp/La Avenida Street currently operates at LOS F during both peak hours under background conditions, with and without the project. Since the project would not cause the critical movement delay to increase by 4 or more seconds, the project would not have an adverse effect at the intersection.

The intersection of Linda Vista Avenue & Middlefield Road operates at LOS E during the AM peak hour, with and without the project under background conditions, and would degrade from LOS D to LOS E during the PM peak hour. Under background conditions, the intersection would operate at a substandard level of service during the AM peak hour. Since the addition of project generated trips would not cause the critical delay to increase by 4 or more seconds, the project would not have an adverse effect at the intersection during the AM peak hour. The addition of project generated trips would degrade the operating level of service from LOS D to LOS E during the PM peak hour. The project proposes to implement a Transportation Demand Management (TDM) plan for the affordable housing portion of the project. Based on the calculations described in the TDM plan, the implementation of a TDM program is estimated to reduce vehicle trips generated by the project by 15%. The multimodal improvements proposed by the project would also encourage future residents to walk, bike, or use transit instead of driving. With the implementation of a TDM plan, the PM peak hour would no longer degrade to LOS E and would not have an adverse effect on traffic operations at this intersection.

Intersection Queuing Analysis

Shoreline Boulevard & Terra Bella Avenue

The existing southbound left-turn storage length is approximately 150 feet. As part of the mitigation measures for a previously approved project, the left-turn storage pocket will be extended to 350 feet

under background conditions. Under all scenarios, the Shoreline Boulevard & Terra Bella Avenue intersection was calculated to have insufficient storage for the southbound left-turn movement during the AM peak hour. The project would add 12 vehicles during the AM peak hour to the southbound left-turn movement. This equates to at most one vehicle during the heaviest cycles and would cause an adverse effect at the intersection. Based on the calculations described in the TDM plan, the implementation of a TDM program is estimated to reduce vehicle trips generated by the project by 15%. With this reduction, the project is estimated to add 10 vehicles during the AM peak hour to the southbound left-turn movement and would not extend the 95th percentile AM peak hour queue under background conditions.

Site Access and On-Site Circulation

Site access was evaluated to determine the adequacy of the site's access points with regard to the following: traffic volume, delays, vehicle queues, geometric design, and corner sight distance. On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

Recommended Site Access and On-Site Circulation Improvements

Affordable Housing Site

- Approximately 25 feet of red curb should be painted on both sides of project driveways
- Parking spaces should be assigned because the garage has dead-ends with no place to turn around.
- Trash bins would need to be wheeled out to the trash pick-up area on trash pick-up days

Public Storage Site

- Red curb should be painted in the cul-de-sac on Linda Vista Avenue.
- Red curb should be painted along the project frontage at the San Rafael cul-de-sac

Parking Supply

Vehicle Parking

Parking occupancy counts were conducted at similar affordable housing developments, which yielded an average parking demand of 1.36 spaces per unit. The project would provide 10 units for individuals that are developmentally disabled and 27 units for rapid housing. The applicant has provided information based on similar projects, stating the parking ratios provided for these uses are .85 spaces per unit for the individuals that are developmentally disabled and .6 spaces per unit for rapid housing. These ratios have been observed at similar developments from Alta Housing. The remaining 71 units would require 1.36 parking spaces per unit, as found in the parking occupancy count study.

Based on the parking ratios provided by the applicant and the observed parking demand at similar affordable housing developments in the region, the affordable housing component of the project would be required to provide 123 parking spaces. The project proposes to implement a TDM program to reduce the parking demand generated by the project. Based on the TDM strategies that would reduce vehicle ownership rates, the TDM program is conservatively estimated to reduce parking demand by 15% with the possibility to reduce parking demand by up to 40%. Therefore, the affordable housing component of the project should provide a minimum of 74 parking spaces.

Parking counts also were conducted at similar storage facilities. These yielded an average parking demand of 0.07 space per 1,000 square feet. Based on the observed parking demand at similar Public

Storage facilities in the region, the proposed project should provide 29 parking spaces for the Public Storage site.

The project proposes to provide 96 parking spaces within the two-level parking garage for the affordable housing site and 66 surface parking spaces within the Public Storage site. The affordable housing site would provide 27 fewer spaces than the recommended number of parking spaces based on the parking ratios provided by the applicant and the observed parking demand at similar affordable housing developments in the region. The project proposes to implement a TDM program that would conservatively reduce parking demand by 15% and up to 40%. With the implementation of the TDM program, the proposed 96 parking spaces for the affordable housing site is adequate. The Public Storage site would provide 37 more parking spaces than the demand observed at other Public Storage facilities.

Bicycle Parking

The affordable housing site would provide a total of 108 bicycle spaces for residents and 12 short-term bicycle parking spaces. The proposed number of bicycle parking spaces meets the requirements specified in the City of Mountain View municipal code.

Pedestrian, Bicycle, and Transit Analysis

The project proposes to upgrade the San Rafael Avenue/Terra Bella Avenue intersection with a raised intersection and install “ladder” style crosswalks along all approaches. The project also proposes to construct a new curb ramp to serve the existing crosswalk near the cul-de-sac along Linda Vista Avenue. The crosswalk will be restriped to be a high-visibility “ladder” style crosswalk.

The project would generate a small number of pedestrian trips between the project site and pedestrian generators along Shoreline Boulevard. With the anticipated improvements related to the Shoreline Boulevard Bus Lane and Utility Improvement project, pedestrians would have a safe and continuous connection between the project site and Shoreline Boulevard.

The project would have an adverse effect on pedestrian operations because the project is expected to add vehicle trips to San Rafael Avenue, Linda Vista Avenue, Terra Bella Avenue, Middlefield Road, and Shoreline Boulevard, which have a PQOS score of 3 or more. As described above, it is assumed that the Shoreline Boulevard Bus Lane and Utility Improvements would upgrade existing pedestrian facilities along Shoreline Boulevard and at the intersection of Shoreline Boulevard/Terra Bella Avenue. Additionally, the project would install several improvement features within the project vicinity, including a raised intersection, upgraded curb ramps, and restriped crosswalks to high-visibility crosswalks. The planned improvements by the City of Mountain View and the proposed improvements from the project would increase pedestrian comfort and safety while improving the pedestrian quality of service and is consistent with the guidelines described in the City’s Comprehensive Modal Plan.

Based on the 2015 Bicycle Transportation Plan Update, the project is expected to generate between 2-4 new bicycle trips during the AM and PM peak hours. The project would provide secure bicycle storage for residents on the ground level of the affordable housing building. Guest bicycle parking would be located along the frontages of the affordable housing building.

The project would create an adverse effect on bicycle operations because the project would add vehicle trips to Shoreline Boulevard, Middlefield Road, and Moffett Boulevard, which have a BLTS score of 3 or more. The 2015 Bicycle Transportation Plan proposes Class IV cycle tracks along Shoreline Boulevard and Moffett Boulevard and a Class II full time bike lane along Middlefield Road. The Shoreline Boulevard Bus Lane and Utility Improvements would upgrade the bicycle facilities along Shoreline Boulevard between US 101 and Montecito Avenue with protected bike lanes. The planned improvements by the City of Mountain View would increase bicyclist comfort and safety while improving

the Bicycle Level of Traffic Stress and is consistent with the guidelines described in the City's Comprehensive Modal Plan.

The project is expected to generate between 2-3 new transit riders during the AM and PM peak hours. This new ridership generated by the project could be accommodated by existing services. Due to the small number of new vehicle trips generated by the project, the project would result in a minimal increase in vehicle delay at the study intersections and would not cause a noticeable change in transit travel time and vehicle delay for the bus routes in the study area. The completion of the Shoreline Boulevard Bus Lane and Utility Improvement project would decrease travel time and delay for transit in the peak direction.

Transportation Demand Management

The following design features and TDM measures would be implemented by the project as part of the TDM plan:

- Transportation Management Association (TMA) Membership
- On-Site Carshare
- Bicycle Parking
- Collaborative Workspace
- Pedestrian-Oriented Site Design
- Delivery-Supported Amenities (Front Desk, Food Delivery Drop-Off Area, etc)
- Family TDM Amenities (Ground Level Storage for strollers, carts, etc.)
- Shared Bicycles and Resource Center
- Bike Repair and Wash Station
- Bike Training and Workshops
- TDM Coordinator and Mobility Concierge
- Informational/Promotional Materials
- Pre-Tax Transportation Benefits

1.

Introduction

This report presents the results of the transportation analysis conducted for the proposed development at 1020 & 1040 Terra Bella Avenue in Mountain View, California (see Figure 1). The existing project sites contain approximately 77,418 square feet (s.f.) of drive up storage lockers, a rental office, and a non-habitable single family home most recently used as an office. The project would redevelop the sites by replacing the existing buildings on-site with 108 units of affordable housing and a 408,964 s.f. Public Storage facility. Access to the affordable housing site would be provided via a driveway on Terra Bella Avenue and a driveway on San Rafael Avenue. Access to the public storage site would be provided via driveways on Linda Vista Avenue and on San Rafael Avenue. Figure 2 shows the project site plan for the proposed project.

Scope of Study

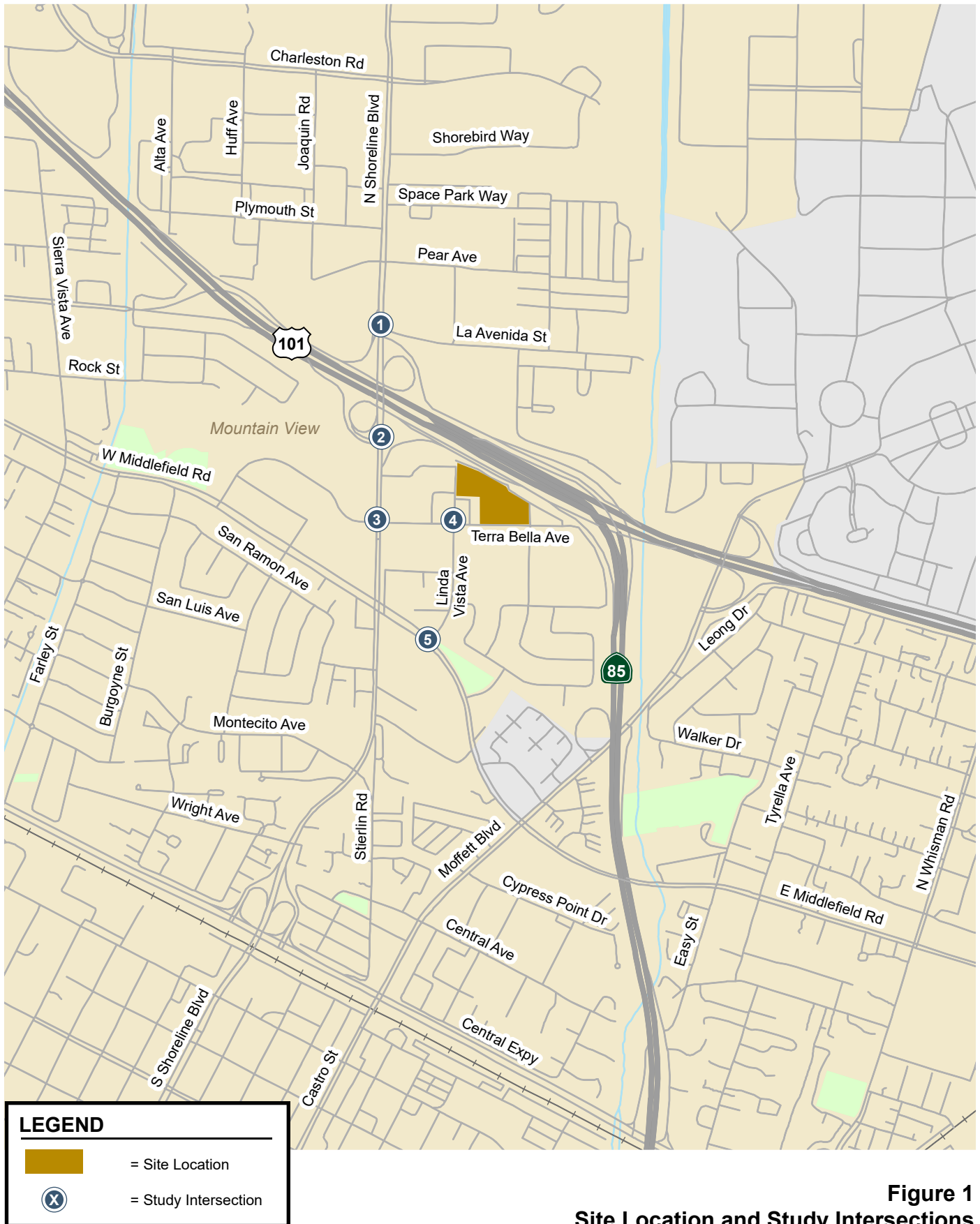
The purpose of the study is to identify potential transportation impacts related to the proposed development. Per California Senate Bill 743 (SB743) and CEQA Guidelines, the study includes a vehicle miles traveled (VMT) analysis. The study also includes a multimodal transportation analysis (MTA) that evaluates potential transportation effects of the project in accordance with the standards and methodologies set forth by the City of Mountain View and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the County Congestion Management Program (CMP).

CEQA Transportation Analysis Scope

Vehicle Miles Traveled

The evaluation of VMT for this project is based on the City's VMT Policy adopted on June 30, 2020. The City of Mountain View's Vehicle Miles Traveled (VMT) Policy describes screening criteria based on a project description, characteristics, and/or locations of projects that would not exceed the CEQA thresholds of significance. If a project meets the screening criteria, it is then presumed that the project would result in a less-than-significant VMT impact, and a VMT analysis is not required.

The proposed project consists of affordable housing and a personal warehouse storage facility. The city's VMT policy states that for mixed-use projects, each project component shall be evaluated independently by applying the most appropriate threshold of significance. The residential portion of the proposed project is 100% affordable and would meet the city's screening criteria. The personal warehouse storage facility portion of the project is local-serving and would also meet the city's screening criteria.



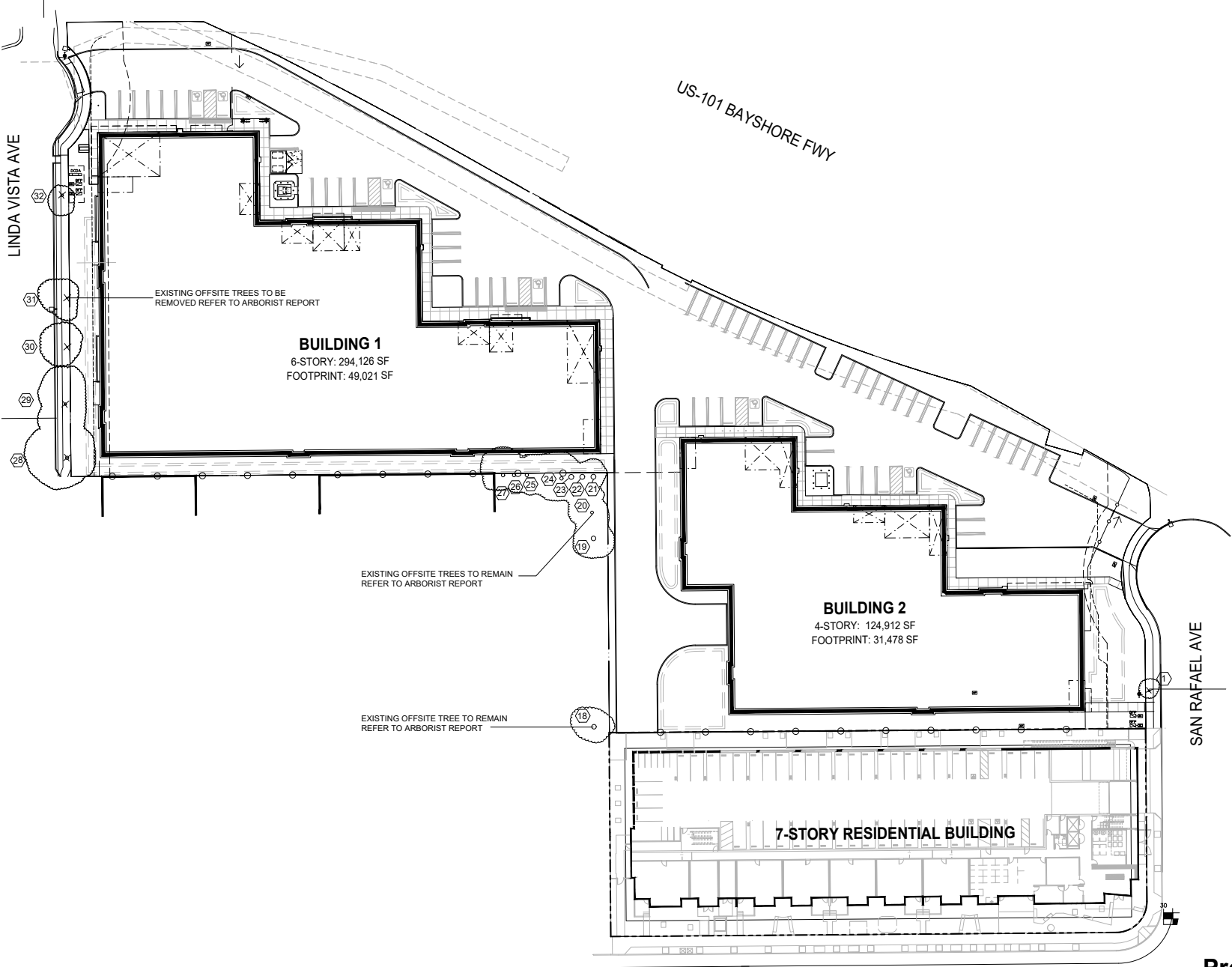


Figure 2
Project Site Plan

Transit Services

Significant impacts to transit service would occur if the project:

- Creates demand for public transit services above the capacity that is provided or planned; or
- Disrupts existing transit services or facilities; or
- Conflicts with an existing or planned transit facility; or
- Conflicts with transit policies adopted by the City of Mountain View, VTA, or Caltrans for their respective facilities in the study area.

Pedestrian and Bicycle Facilities

The Mountain View 2030 General Plan (July 2012) describes related policies necessary to ensure pedestrian and bicycle facilities are safe and effective for City residents. Using the General Plan as a guide, significant impacts to these facilities would occur when a project or an element of the project:

- Creates a hazardous condition that does not currently exist for pedestrians and bicyclists, or otherwise interferes with pedestrian accessibility to the site and adjoining areas; or
- Conflicts with an existing or planned pedestrian or bicycle facility; or
- Conflicts with policies related to bicycle and pedestrian activity adopted by the City of Mountain View, VTA, or Caltrans for their respective facilities in the study area.

Multimodal Transportation Analysis (MTA) Scope

The MTA includes an analysis of the traffic operational effects of the project on the key intersections in the vicinity of the site, a freeway capacity and ramp analysis, an evaluation of the transit, bicycle, and pedestrian access and circulation, and a review of site access and on-site circulation.

The MTA includes the evaluation of operational issues (queuing, signal operations, and potential multi-modal issues) at intersections in the general vicinity of the project site. The MTA is required by the City of Mountain View in order to assist city staff with identifying potential adverse effects on the transportation system. However, the operational deficiencies identified as part of the MTA are not considered impacts per CEQA guidelines.

Report Organization

The remainder of this report is divided into four chapters. Chapter 2 describes the existing transportation system including the existing roadway network, transit service, bicycle and pedestrian facilities. Chapter 3 describes the CEQA transportation analysis, including the VMT analysis methodology and applicable screening criteria. Chapter 4 describes the MTA including the method by which project traffic is estimated, intersection operations analysis methodology, any adverse intersection traffic effects caused by the project, signal warrant analysis, intersection vehicle queuing analysis, a parking analysis, a site access and on-site circulation review, and effects on bicycle, pedestrian, and transit facilities. Chapter 5 presents the conclusions of the transportation analysis.

2. Existing Transportation Setting

This chapter describes the existing conditions of the transportation system within the study area of the project. It describes transportation facilities in the vicinity of the project site, including the roadway network, transit services, and pedestrian and bicycle facilities.

Existing Roadway Network

Regional access to the project site is provided by US 101 and SR 85. Local access to the project site is provided via Shoreline Boulevard, Middlefield Road, Moffett Boulevard, Terra Bella Avenue, San Rafael Avenue, and Linda Vista Avenue. For the purposes of this study, US 101 and all parallel streets are considered to run east-west, and cross streets, such as Shoreline Boulevard, are considered to run north-south.

US 101 is a freeway that extends through and beyond the Bay Area, connecting San Francisco to San Jose. US 101 is eight lanes wide with three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction in the vicinity of the project site. US 101 provides access to the study area via a full interchange at Shoreline Boulevard.

SR 85 is a freeway that begins at US 101, east of N. Shoreline Boulevard, extends south towards San Jose, and terminates at US 101 east of the Silicon Valley Boulevard/Bernal Road interchange. SR 85 is six lanes wide (two mixed-flow lanes and one HOV lane in each direction) in the vicinity of the project site. SR 85 provides access to the project study area via an interchange at Moffett Boulevard.

Shoreline Boulevard is a north-south four-lane arterial in the vicinity of the project site. It begins near Shoreline Lake in the north and extends to El Camino Real in the south, where it becomes Miramonte Avenue. In the project vicinity, Shoreline Boulevard has a posted speed limit of 35 mph. Shoreline Boulevard has left-turn pockets at intersections and has bike lanes and sidewalks on both sides of the street. Access to the project site from Shoreline Boulevard is provided via Terra Bella Avenue.

Middlefield Road is an east-west four-lane arterial that runs parallel to US 101. It begins at the intersection of Central Expressway in Mountain View and traverses westward through Redwood City. Middlefield Road has landscaped medians with left-turn pockets at signalized intersections and has bike lanes and sidewalks on both sides of the street except one section on the south side of Middlefield Road over SR 85. Middlefield Road has a posted speed limit of 35 mph. Access to the project site from Middlefield Road is via Shoreline Boulevard and Linda Vista Avenue.

Moffett Boulevard is a north-south four-lane arterial in the vicinity of the project site. It begins from R T Jones Road in the north and extends to Central Expressway in the south, where it becomes Castro Street. Moffett Boulevard has landscaped medians with left-turn pockets at signalized intersections and has sidewalks on both sides of the street. Bike lanes are present from SR 85 to just north of Leong Drive. Moffett Boulevard has a posted speed limit of 40 mph. Access to the project site from Moffett Boulevard is via Middlefield Road.

Terra Bella Avenue is a two-lane east-west roadway in the vicinity of the project site. Terra Bella Avenue has sidewalks and on-street parking on both sides of the street. Terra Bella Avenue has a posted speed limit of 25 mph. A driveway along Terra Bella Avenue would provide access to the parking garage for the affordable housing site.

San Rafael Avenue is a two-lane north-south roadway in the vicinity of the project site. San Rafael has sidewalks and on-street parking on both sides of the street. San Rafael Avenue has a posted speed limit of 25 mph. A driveway would provide access to the second level parking of the affordable housing site. A driveway at the end of San Rafael Avenue provides access to the existing and proposed public storage facility.

Linda Vista Avenue is a two-lane north-south roadway in the vicinity of the project site. Linda Vista Avenue has sidewalks and on-street parking on both sides of the street. Linda Vista Avenue has a posted speed limit of 25 mph. A driveway at the end of Linda Vista Avenue provides access to the existing and proposed public storage facility.

Existing Pedestrian, Bicycle and Transit Facilities

The existing bicycle, pedestrian, and transit facilities in the study area are described below.

Existing Pedestrian Facilities

Pedestrian facilities in the study area consist of sidewalks along all the surrounding streets, including the project frontages along Terra Bella Avenue, Linda Vista Avenue, and San Rafael Avenue. Crosswalks and pedestrian signal heads are present along the following legs at study intersections:

- North, west, and east legs of the Shoreline Boulevard/US 101 Northbound Off-Ramp/La Avenida Street intersection
- West leg of the Shoreline Boulevard/US 101 Southbound Ramps intersection
- All legs of the Shoreline Boulevard/Terra Bella Avenue intersection

Additionally, crosswalks are provided at all legs of the Linda Vista Avenue/Terra Bella Avenue intersection and the north leg of the Linda Vista Avenue/Middlefield Road intersection. ADA-compliant curb ramps are located at most intersections within the project vicinity, with the exception of the northwest, southwest, and southeast corners of the Shoreline Boulevard/Terra Bella Avenue intersection.

Pedestrian generators in the project vicinity include office buildings and bus stops along Shoreline Boulevard and Middlefield Road. Continuous sidewalks along Terra Bella Avenue and Shoreline Boulevard provide access to major pedestrian generators in the project vicinity.

Existing Bicycle Facilities

There are several bicycle facilities in the vicinity of the project site. The existing bicycle facilities are shown in Figure 3.

Class II Bikeways (Bike Lanes). Class II bikeways are striped bike lanes on roadways that are marked by signage and pavement markings. Within the vicinity of the project site, striped bike lanes are present on the following roadway segments.

- Shoreline Boulevard, southern terminus to Charleston Road
- Middlefield Road (part-time, open during the daytime and peak hours), within the Mountain View city limits

Stevens Creek Trail

The Stevens Creek multi-use trail system runs through the City of Mountain View and is shared between pedestrians and bicyclists and separated from motor vehicle traffic. The Stevens Creek trail in the City of Mountain View is a five-mile continuous Class I bikeway from Shoreline at Mountain View in the north to Dale/Heatherstone in the south. This trail system can be accessed via a trailhead on Middlefield Road, approximately 1-mile walking distance southeast of the project site.

Existing Transit Service

Existing transit services in the study area are provided by the Valley Transportation Authority VTA and the Mountain View Transportation Management Association (MTMA). The closest bus stops serviced by the VTA and the MTMA are located along Shoreline Boulevard, approximately 1,100 feet walking distance from the project site. Figure 4 shows the existing transit services.

The project area is served by one VTA bus line and one MTMA “MVgo” shuttle. The routes that operate along Shoreline Boulevard in the project vicinity are listed in Table 1, including their route descriptions and commute hour headways.

Table 1
Existing Bus Service Near the Project Site

Transit Route	Route Description	Hours of Operation	Headway ¹
VTA Local Route 40	Foothill College - Mountain View Transit Center via North Bayshore	6:15 am - 10:30 pm	30 mins
Mvgo Shuttle Route B	Shoreline, La Avenida, Crittenden	6:30 am - 10:30 am and 3:30 pm - 8:00 pm	30 mins

Notes:
¹ Approximate headways during peak commute periods.



Figure 3
Existing Bicycle Facilities

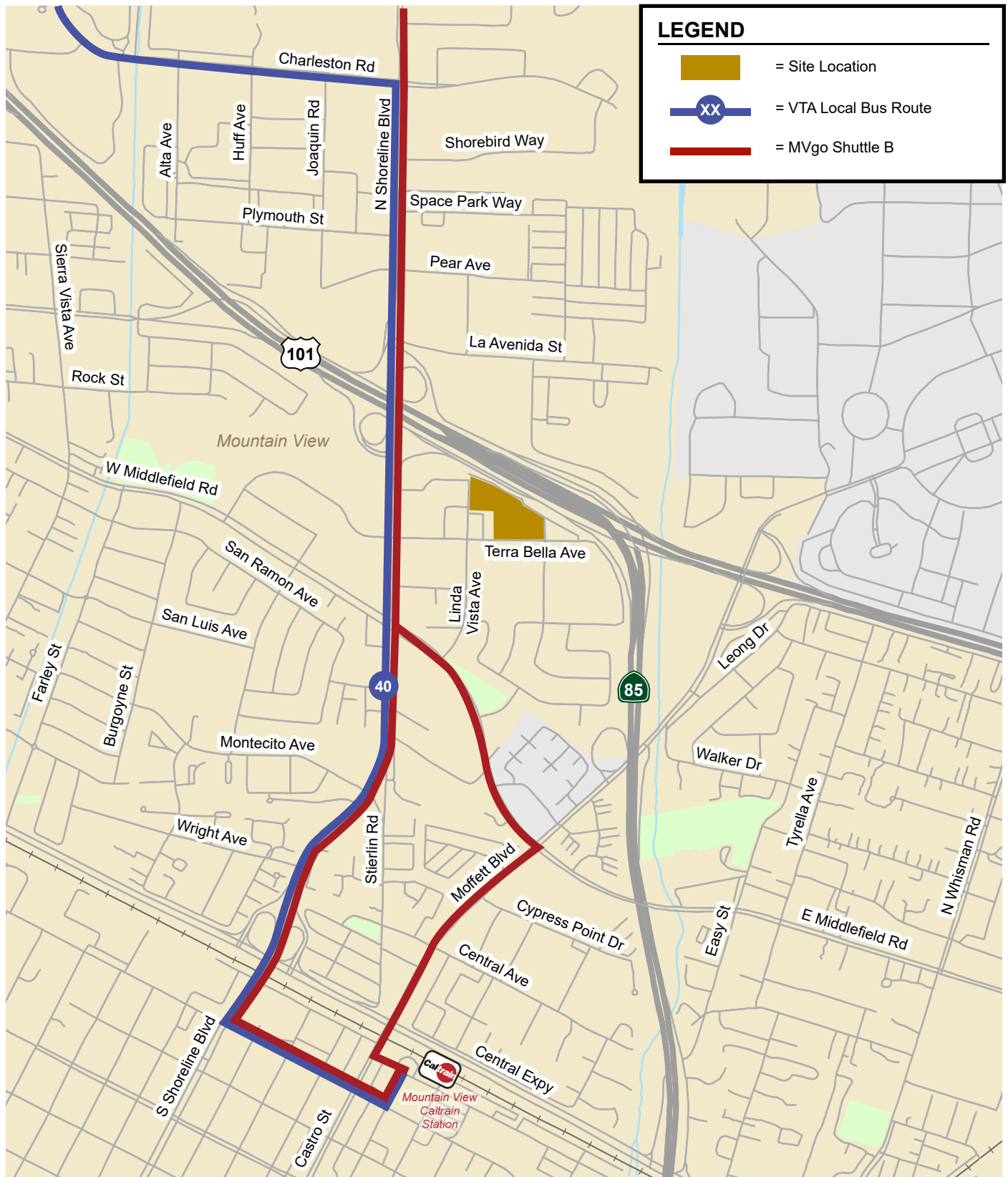


Figure 4
Existing Transit Services

3.

CEQA Transportation Analysis

This chapter describes the CEQA transportation analysis, including the VMT analysis methodology, significance criteria, and potential project impacts on VMT.

CEQA Transportation Analysis Screening Criteria

The City of Mountain View's adopted VMT policy identifies screening criteria that determine whether a CEQA transportation analysis would be required for development projects. The criteria are based on the type of project, characteristics, and/or location. If a project meets the City's screening criteria, it is presumed that the project would result in a less-than-significant transportation impact and a detailed VMT analysis is not required. The type of development projects that may meet the screening criteria include the following:

- (1) small projects screening
- (2) map-based screening
- (3) transit screening
- (4) affordable housing screening

Additionally, projects that meet the following criteria would be exempt from a detailed VMT analysis:

Retail Land Use Projects: A net increase in total VMT (difference in total VMT in the area affected with and without the project) shall be presumed to cause a significant transportation impact. Depending on the local context, projects determined by the City to be local-serving retail are exempt from being required to conduct a detailed CEQA VMT analysis. Retail projects larger than 50,000 square feet may be considered regional-serving and would be subject to the retail land-use threshold of significance.

Evaluation of Screening Criteria

The project consists of 108 units of affordable housing and a 408,964 s.f. Public Storage facility. Since 100% of the residential units will be affordable, the residential portion of the project is presumed to result in a less-than-significant transportation impact, and a detailed VMT analysis is not required.

VMT Analysis Methodology

The effects of the Public Storage facility on VMT were evaluated against the adopted VMT policy for the City of Mountain View. Since personal storage facilities are not a common land use described in the city's VMT policy, the city has provided their preferred analysis methodology for personal storage

facilities. The methodology assumes that demand for personal storage facilities is constant, and the addition of a new (or redeveloping) self-storage site would redistribute existing personal storage-based trips within the City instead of creating new trips. The quantitative approach to evaluate the potential change in project-related VMT is as follows:

- (1) Determine the average personal storage trip length in the immediate area by measuring the distance between existing personal storage facilities and a common point near the geographical center of Mountain View (assumed to be city hall)
- (2) Measure the trip length from the project site to common point (city hall)
- (3) If the project trip length is less than the average personal storage trip length for existing personal storage facilities, then the project is presumed to reduce the average distance traveled for this type of use and is considered to have a less than significant VMT impact

Project Level VMT Analysis

There are currently 13 similar personal storage facilities in the study area vicinity within a 3 mile radius of city hall. The average distance of these facilities and the Mountain View city hall is 2.1 miles. The distance between the project site and city hall is 1.4 miles. Therefore, the project is presumed to have a less-than-significant impact on VMT because the length of travel from city hall to the project site is less than the average distance to similar personal storage facilities. Table 2 shows the list of personal storage facilities and the distance from city hall. Figure 5 shows a map of personal storage facilities and the geographic common point (city hall).

Table 2
Vehicle Miles Traveled Estimate

#	Name	Address	Distance to City Hall (Miles)
1	Grape Avenue Self Storage	690 Grape Avenue, Sunnyvale, CA	2.0
2	Devon Self Storage	818 W El Camino Real, Sunnyvale, CA	2.5
3	Self Storage Selo of Pastoria	833 W El Camino Real, Sunnyvale, CA	2.5
4	ULockStore	131 S Taffee Street, Sunnyvale, CA	2.8
5	Storage Corner	922 W Evelyn Avenue, Sunnyvale, CA	2.2
6	Evelyn Ave Self Storage	938 W Evelyn Avenue, Sunnyvale, CA	2.2
7	Public Storage	1909 Old Middlefield Way, Mountain View, CA	1.7
8	Public Storage	1987 Old Middlefield Way, Mountain View, CA	1.8
9	Public Storage	830 N Rengstorff Avenue, Mountain View, CA	1.9
10	Stoway Mini-Storage	2172 Wyandotte Street, Mountain View, CA	2.0
11	Independence Storage	877 Independence Avenue, Mountain View, CA	2.0
12	ABC Self Storage	2496 Wyandotte Street, Mountain View, CA	2.1
13	Peninsula Storage Center	2409 Leghorn Street, Mountain View, CA	2.2
Average (All sites within 3 miles of City Hall):			2.1
	Project	1040 Terra Bella Avenue, Mountain View, CA	1.4

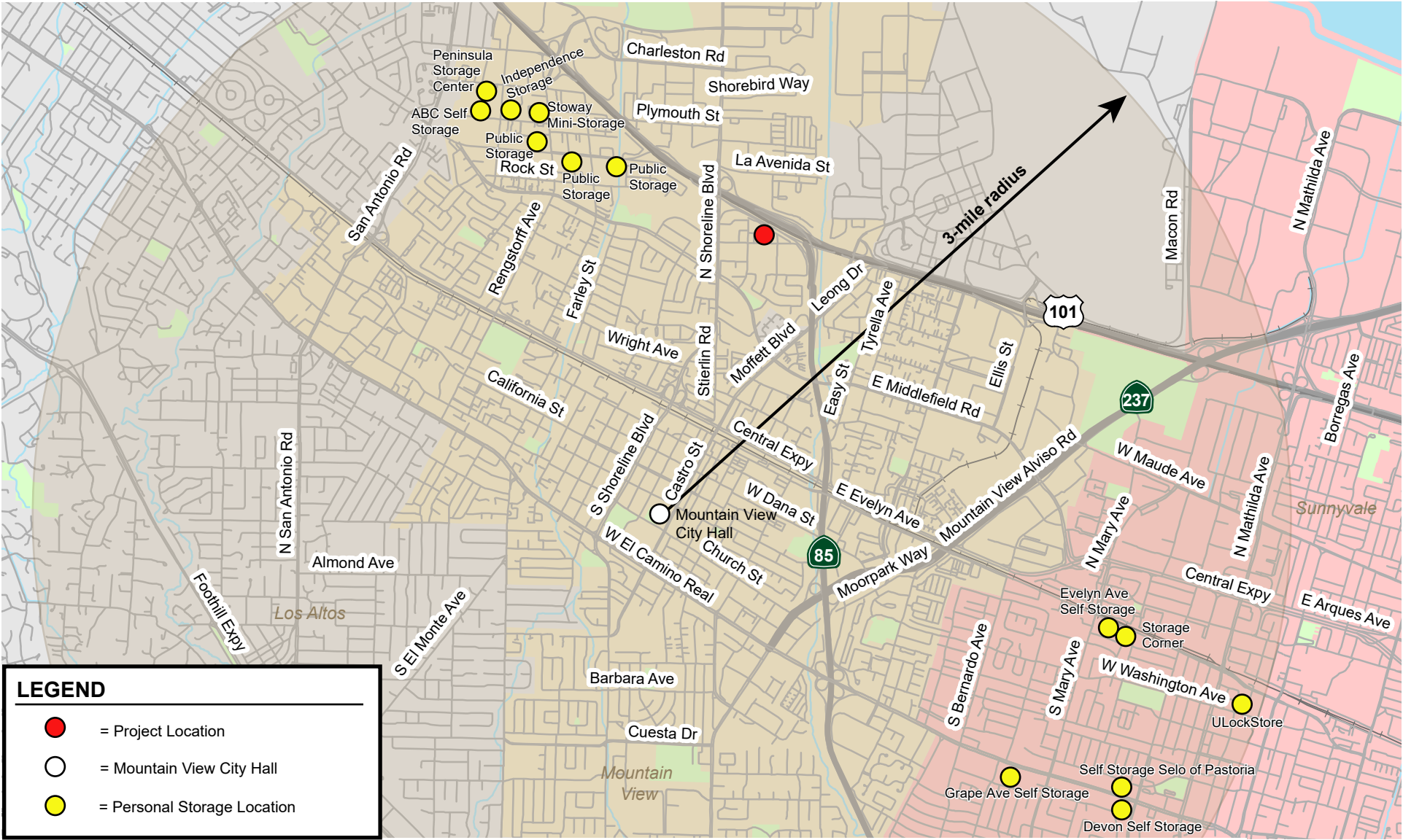


Figure 5
Personal Storage Locations

4.

Multimodal Transportation Analysis

The MTA includes an analysis of the traffic operational effects of the project on the key intersections in the vicinity of the site, an evaluation of the transit, bicycle, and pedestrian access and circulation, and a review of site access, on-site circulation, and parking.

The MTA includes the evaluation of weekday AM and PM peak hour operational issues (queuing, signal operations, and potential multi-modal issues) at intersections in the general vicinity of the project site. The MTA is required by the City of Mountain View in order to assist city staff with identifying potential adverse effects on the transportation system. However, the operational deficiencies identified as part of the MTA are not considered impacts per CEQA guidelines.

Project Trip Estimates

The magnitude of traffic produced by a new development and the locations where that traffic would appear are estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In determining project trip generation, the magnitude of traffic entering and exiting the site is estimated for the AM and PM peak hours. As part of the project trip distribution, the directions to and from which the project trips would travel are estimated. In the project trip assignment, the project trips are assigned to specific streets and intersections. These procedures are described below.

Trip Generation

Proposed Project Trips

Through empirical research, data have been collected that indicate the amount of traffic that can be expected to be generated by common land uses. Project trip generation was estimated by applying to the size and uses of the development the appropriate trip generation rates. The average trip generation rates for Mini-Warehouse (Land Use 151) and Affordable Housing (Land Use 223) as published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 11th Edition* (2021) were applied to the size of the Public Storage facility and the proposed number of affordable housing units. Based on the trip generation rates and the project size, it is estimated that, prior to any trip reductions, the proposed development would generate 1,117 daily trips with 76 trips (33 inbound and 43 outbound) occurring during the AM peak-hour and 111 trips (59 inbound and 52 outbound) occurring during the PM peak-hour.

Trip credits were taken for the existing 77,418 s.f. of personal storage warehousing and the single-family home on the project site.

Net Project Trips

After applying the ITE trip rates and trip credits from existing uses, it is estimated that the project would generate 996 new daily vehicle trips, with 68 new trips (29 inbound and 39 outbound) occurring during the AM peak hour and 98 new trips (52 inbound and 46 outbound) occurring during the PM peak hour. The project trip generation estimates are presented in Table 3.

Trip Distribution and Trip Assignment

The trip distribution pattern for the project was developed based on existing travel patterns on the surrounding roadway system and the locations of complementary land uses. The peak-hour vehicle trips generated by the project were assigned to the roadway network in accordance with the trip distribution pattern. Figure 6 shows the trip distribution pattern, and Figure 7 shows the net trip assignment of project traffic on the local transportation network.

Intersection Operations Methodology

This section presents the methods used to evaluate traffic operations at the study intersections. It includes descriptions of the data requirements, the analysis methodologies, the applicable level of service standards, and the criteria defining adverse effects at the study intersections.

The intersection operations analysis is intended to quantify the operations of intersections and to identify potential negative effects due to the addition of project traffic. However, a potential adverse effect on a study intersection is not considered a CEQA impact metric.

Study Intersections

The study includes an analysis of AM and PM peak-hour traffic conditions for three signalized intersections and two unsignalized intersections within the City of Mountain View. Intersections were selected in coordination with city staff.

The following study intersections were selected for analysis:

1. Shoreline Boulevard & La Avenida Street/US 101 Northbound Off-ramp
2. Shoreline Boulevard & US 101 Southbound Ramps
3. Shoreline Boulevard & Terra Bella Avenue
4. Linda Vista Avenue & Terra Bella Avenue (unsignalized)
5. Linda Vista Avenue & Middlefield Road (unsignalized)

Data Requirements

The data required for the analysis were obtained from recent traffic studies, new traffic counts, the City of Mountain View, and field observations. The following data were collected from these sources:

- existing traffic volumes
- existing lane configurations
- signal timing and phasing
- approved roadway improvements
- approved project trips

Table 3
Project Trip Generation Estimates

Land Use	Size	Daily		AM Peak Hour						PM Peak Hour					
		Rate	Trip	Rate	Split		Trip			Rate	Split		Trip		
					In	Out	In	Out	Total		In	Out	In	Out	Total
Proposed Land Uses															
#151 - Mini-Warehouse	408,964 Square Feet	1.450	593	0.090	59%	41%	22	15	37	0.150	47%	53%	29	32	61
#223 - Affordable Housing	109 Dwelling Units	4.810	524	0.360	29%	71%	11	28	39	0.460	59%	41%	30	20	50
Total Project Trips			1,117				33	43	76				59	52	111
Existing Land Uses															
#151 - Mini-Warehouse	77,418 Square Feet	1.450	112	0.090	59%	41%	4	3	7	0.150	47%	53%	6	6	12
#210 - Single-Family Detached Housing	1 Dwelling Units	9.430	9	0.700	26%	74%	0	1	1	0.940	63%	37%	1	0	1
Total Project Trips			121				4	4	8				7	6	13
Net Project Trips			996				29	39	68				52	46	98
Source: ITE Trip Generation Manual, 11 th Edition 2021.															

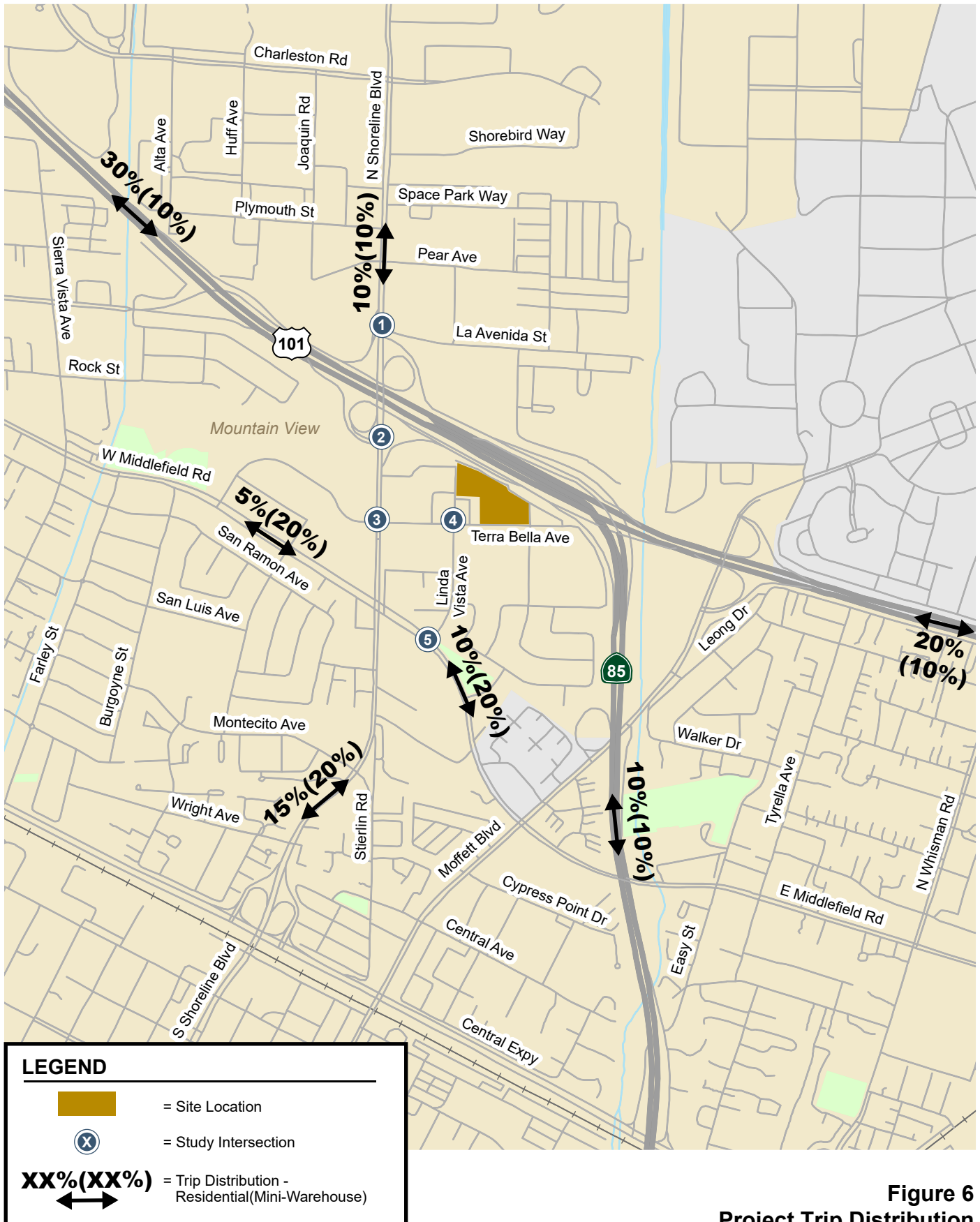


Figure 6
Project Trip Distribution

1020-1040 Terra Bella Avenue Transportation Analysis

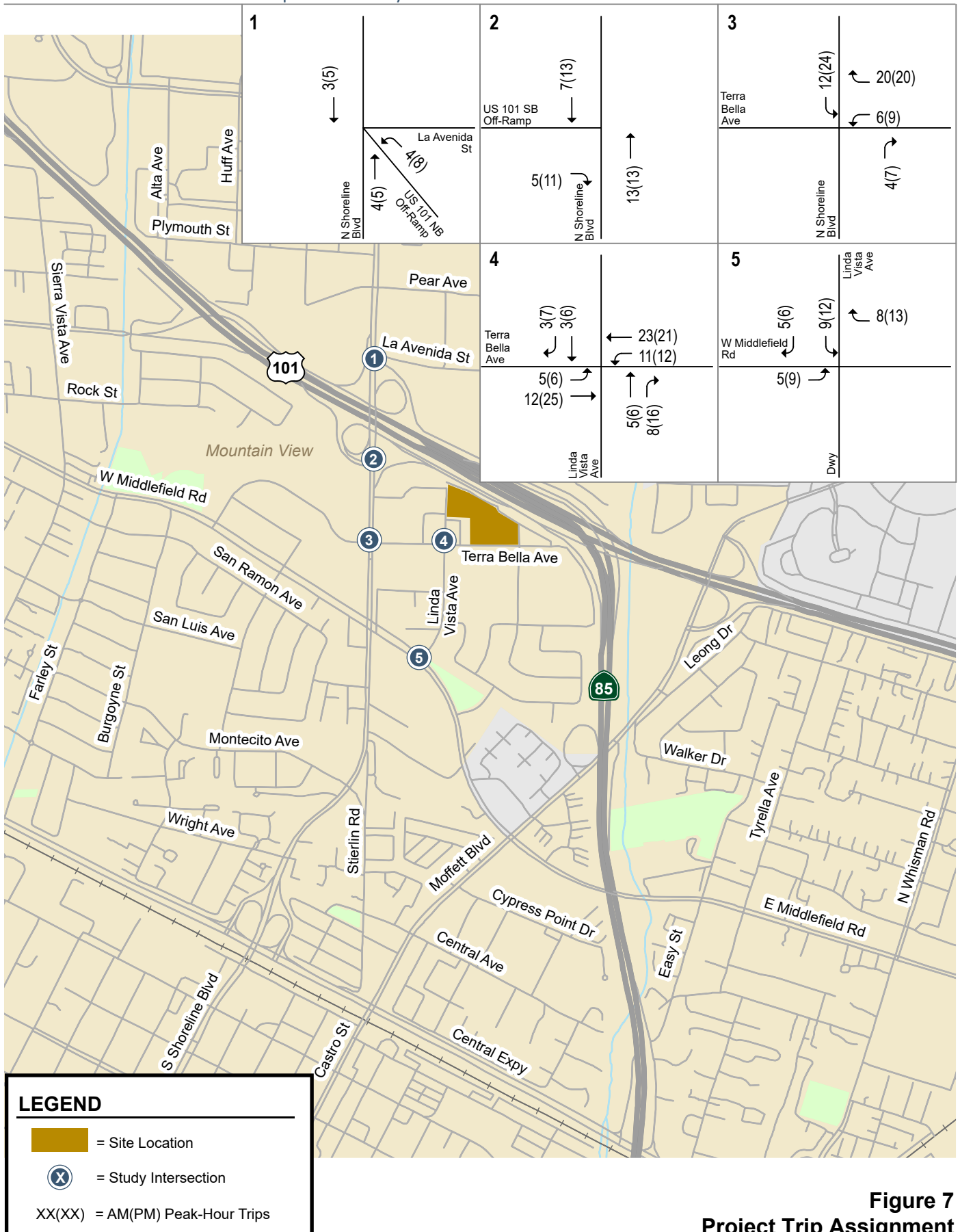


Figure 7
Project Trip Assignment

Lane Configurations

The existing lane configurations at the study intersections were determined by observations in the field and are shown on Figure 8. The following roadway improvements are assumed to be completed under background and background plus project conditions:

- **Shoreline Boulevard Bus Lane Improvement Project.** The project would include a reversible transit-only lane on N. Shoreline Boulevard that extends northward from Middlefield Road to Pear Avenue. The single lane would operate northbound on weekday mornings and southbound in the afternoon. On N. Shoreline Boulevard between Middlefield Road and Terra Bella Avenue, the transit lane would occupy the existing center left-turn lane. All vehicles currently using the center turn lane would perform a U-turn at either the Middlefield Road or Terra Bella Avenue intersections. The left-turn lane that provides access to the southbound SR 85 on-ramp from northbound Shoreline Boulevard would be removed and replaced with the reversible bus lane. Traffic bound for southbound SR 85 is expected to divert to the SR 85/Moffett Boulevard interchange. The bus lane along Shoreline Boulevard would occupy the existing landscaped medians between Pear Avenue and Terra Bella Avenue.
 - N. Shoreline Boulevard and US 101 Southbound Off-Ramp: The northbound left-turn lane onto the southbound SR 85 on-ramp and the associated signal phase would be removed.
 - N. Shoreline Boulevard and Terra Bella Avenue: The signal phasing for the eastbound and westbound approaches is expected to be modified from permitted to split phase. Split phase operation would increase the total intersection lost time and the cycle length.

Traffic Volumes

Existing Conditions

Existing peak hour traffic volumes at all signalized study intersections were obtained from previous transportation studies in the area. For intersections where count data was more than two years old, a compounded growth factor of 1% per year was applied. At locations where count data was unavailable, counts were conducted and at adjacent intersections where count data is available. The new turning movement counts were then compared to existing counts and factored to represent pre-COVID traffic volumes. The existing peak-hour intersection volumes are shown on Figure 9. Intersection turning-movement counts conducted for this analysis are presented in Appendix A.

Future Conditions

Background traffic volumes for the study intersections (see Figure 10) were estimated by adding to the existing traffic volumes (1) the trips generated by nearby approved projects that have not been constructed or occupied and (2) the reassigned traffic resulting from the Shoreline Boulevard bus lane improvement project. Project trips were added to background traffic volumes to obtain background plus project traffic volumes (see Figure 11).

A list of approved projects was obtained from the City of Mountain View. Hexagon considered both the location and size of the approved projects in order to eliminate those that were too far away or too small to affect traffic conditions of the study intersections. The approved projects considered for the study are listed in Appendix B. Vehicle trips from the approved projects were obtained from the project's TIA or environmental document (initial study or EIR), if available. For projects without a traffic study, trip estimates were developed using rates published in the *Trip Generation Manual*. The estimated trips were assigned to the study intersections according to distributions identified in the development traffic studies, if available, or knowledge of the study area.

1020-1040 Terra Bella Avenue Transportation Analysis

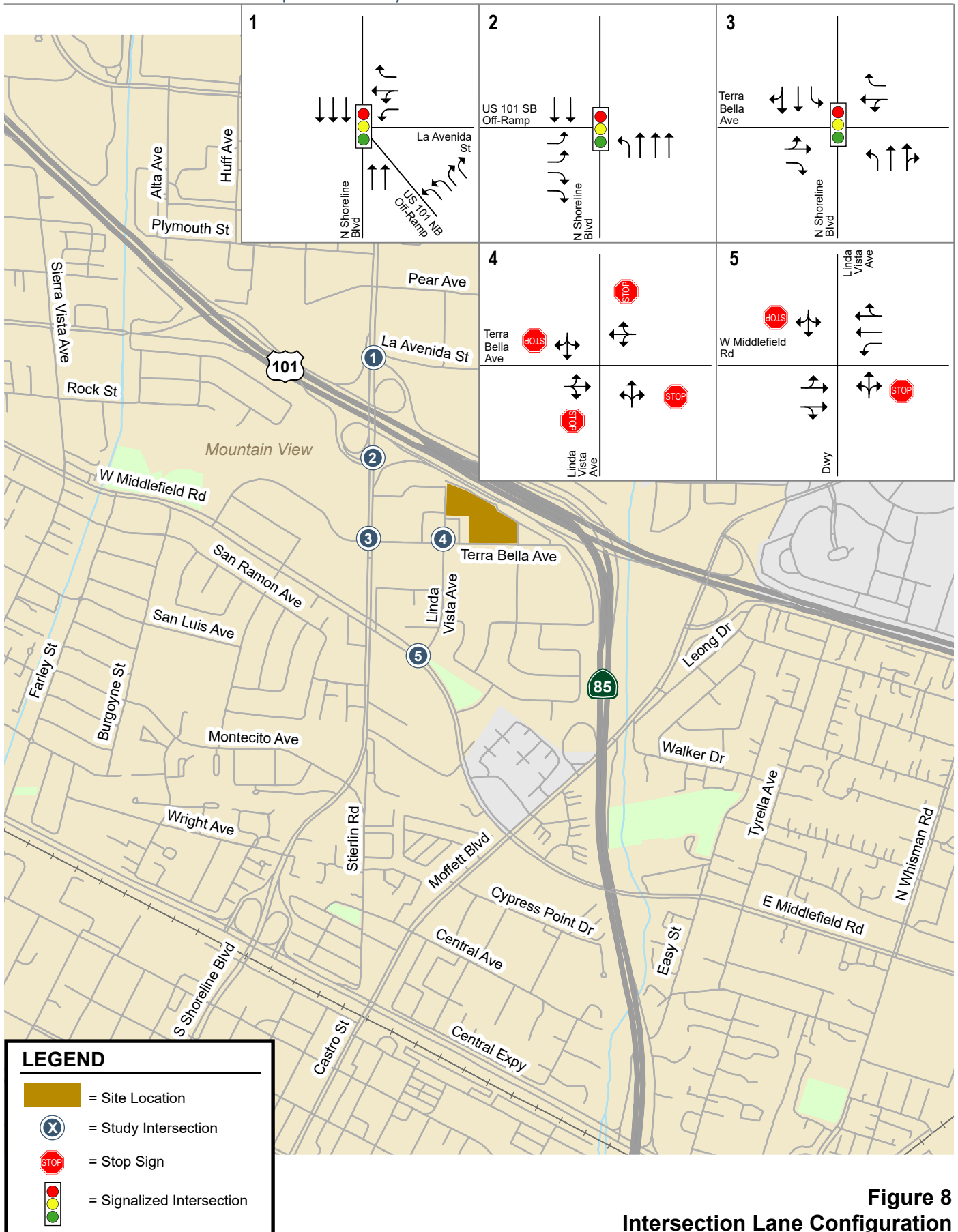


Figure 8
Intersection Lane Configuration

1020-1040 Terra Bella Avenue Transportation Analysis

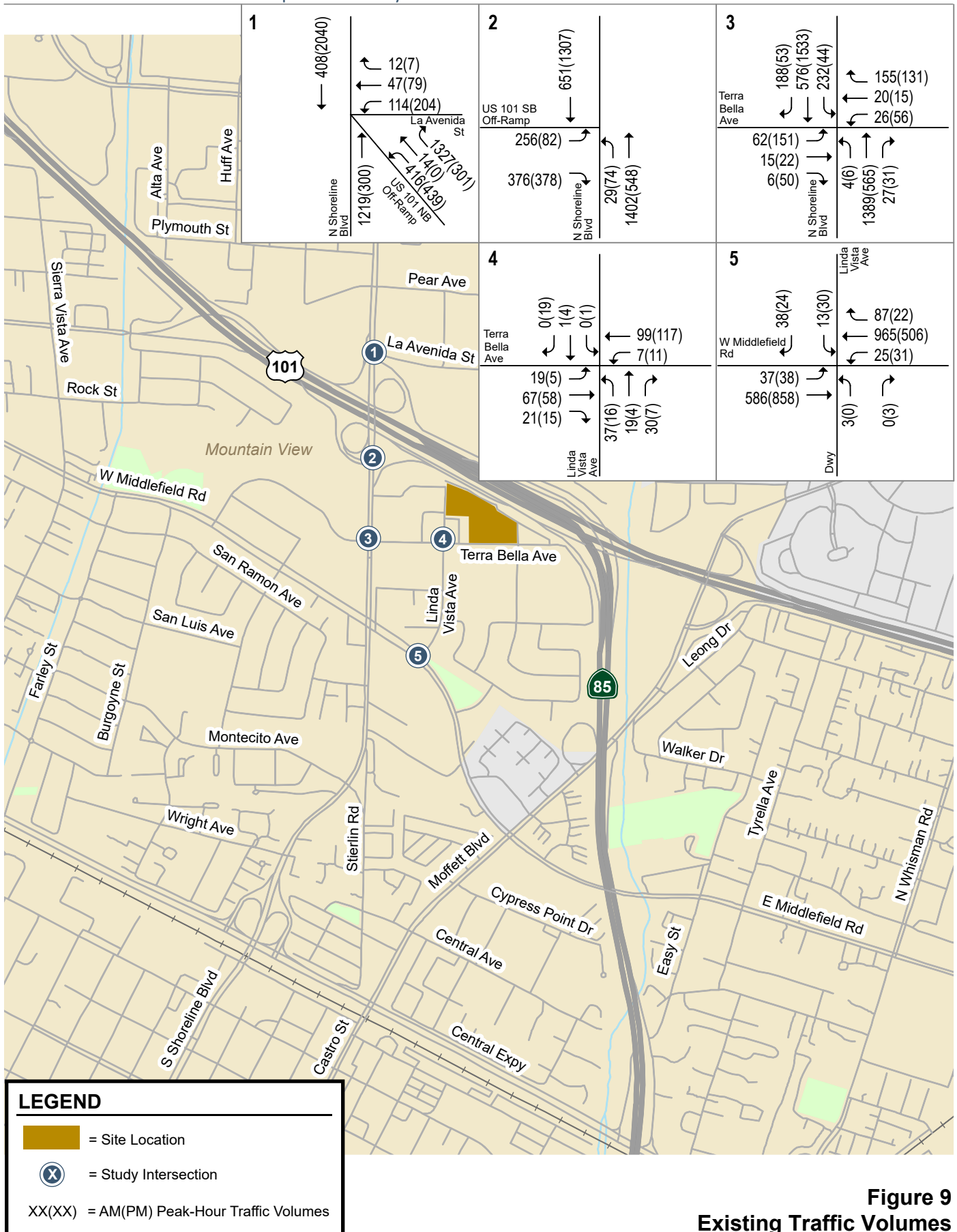


Figure 9
Existing Traffic Volumes

1020-1040 Terra Bella Avenue Transportation Analysis

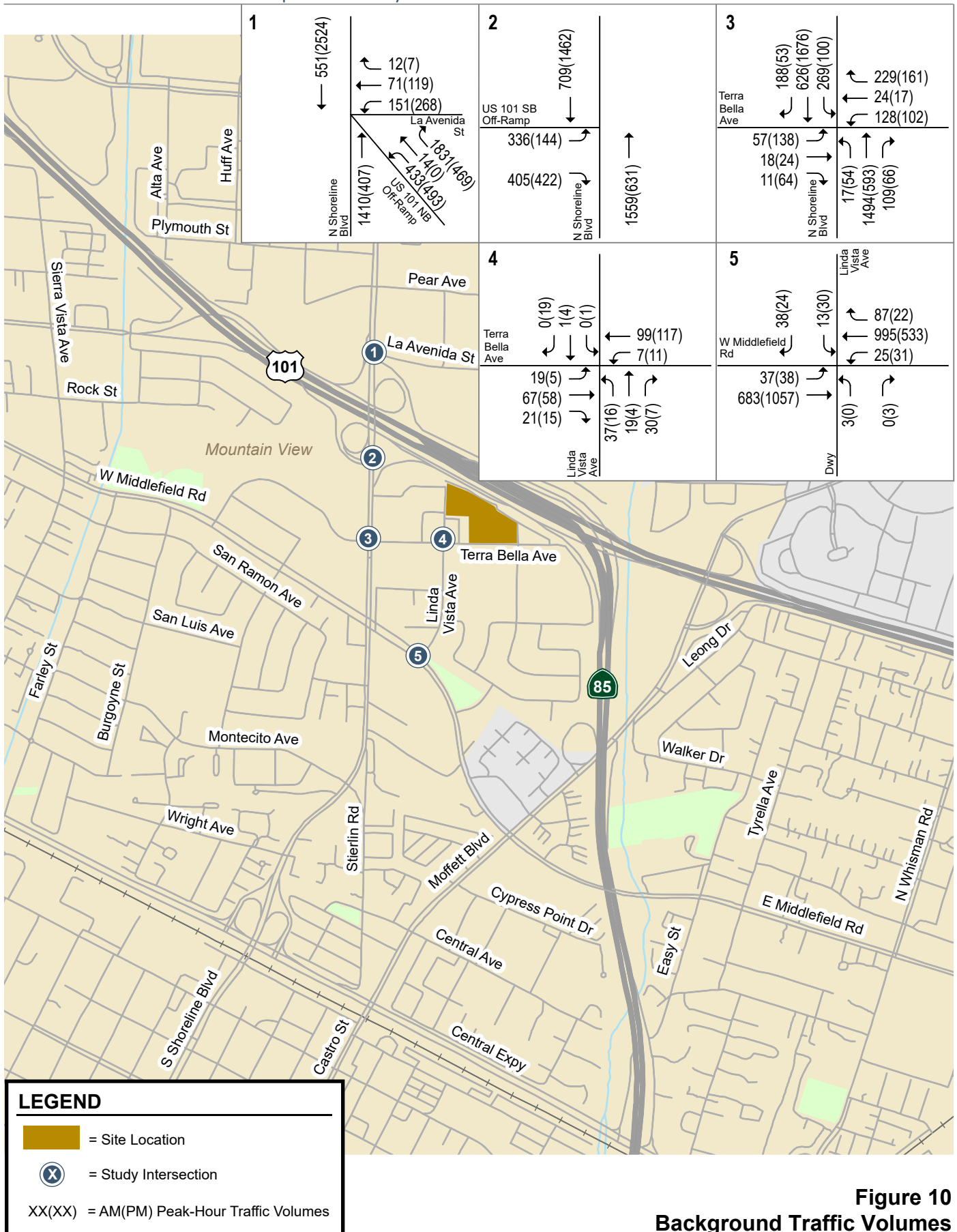


Figure 10
Background Traffic Volumes

1020-1040 Terra Bella Avenue Transportation Analysis

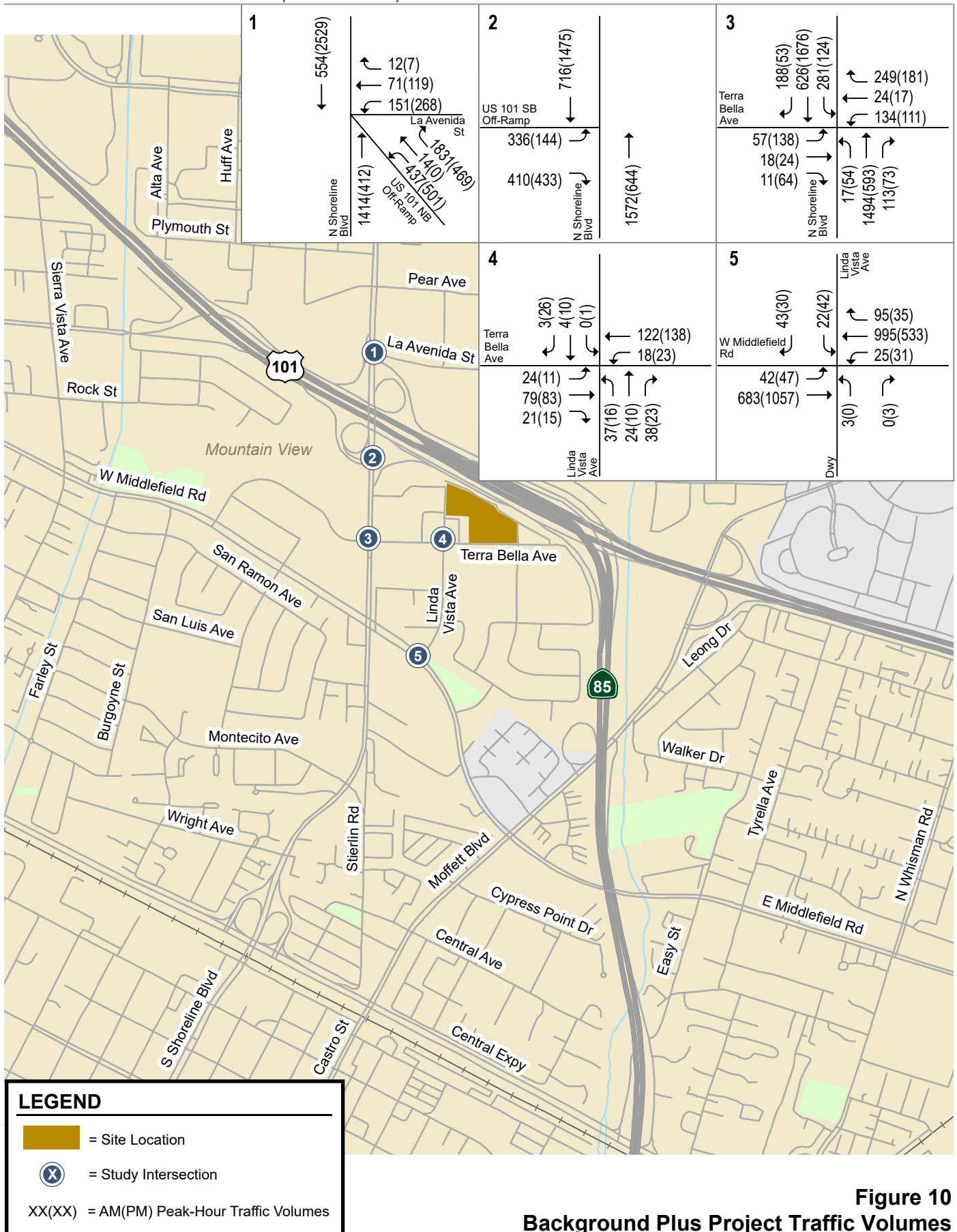


Figure 10
Background Plus Project Traffic Volumes

The Shoreline Boulevard bus lane improvement project identifies the removal of the northbound left-turn lane at the intersection of N. Shoreline Boulevard and the on-ramp to southbound US 101/SR 85. The closure of this lane would require all vehicles bound for SR 85 to use Middlefield Road to access the Moffett Boulevard/SR 85 interchange. Therefore, all existing vehicles that are utilizing the left-turn lane were rerouted to the Moffett interchange. The proposed center transit lane would occupy the existing center turn lane on N. Shoreline Boulevard between Middlefield Road and Terra Bella Avenue. All vehicles currently using the center turn lane would perform a U-turn at either the Middlefield Road or Terra Bella Avenue intersections. Potential traffic reduction as a result of bus lane project was not considered in the background traffic volumes.

Traffic volumes under all scenarios are tabulated in Appendix C.

Level of Service Standards and Analysis Methodologies

Traffic conditions at the study intersections were evaluated using level of service (LOS). Level of service is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays.

Signalized Intersection Level of Service

For signalized intersections, the level of service method evaluates intersection operations on the basis of average control delay time for all vehicles at the intersection based on the methodology described in the *2000 Highway Capacity Manual* (HCM). Table 4 presents the level of service definitions for signalized intersections.

This study utilizes TRAFFIX software to determine intersection levels of service based on the 2000 HCM methodology. Since TRAFFIX is approved by VTA as the level of service analysis software for CMP signalized intersections, the City of Mountain View employs the CMP defaults values for the analysis parameters. TRAFFIX software was used to analyze intersection operations and intersection impacts based on the increases in critical-movement delay and the volume-to-capacity ratio (v/c) between no-project and project scenarios.

According to the 2030 General Plan Action Items (MOB 8.1.3), until adoption of new significance thresholds of performance indicators occurs, the City of Mountain View has interim level of service (LOS) standards based on the 1992 General Plan. The interim standard for signalized intersections is LOS D, except for CMP intersections and intersections in the Downtown and San Antonio Center planning areas, where the standard is LOS E.

Unsignalized Intersection Level of Service

Level of service analysis at unsignalized intersections is generally used to determine the need for modification in the type of intersection control (i.e., all-way stop or signalization). As part of the evaluation, traffic volumes, delays, and traffic signal warrants are evaluated to determine if the existing intersection control is appropriate.

For unsignalized intersections, level of service depends on the average delay experienced by vehicles on the stop-controlled approaches. For side street stop-controlled intersections (two-way or T-intersections), operations are defined by the average control delay experienced by vehicles entering the intersection from the stop-controlled approaches on minor streets or from left-turn approaches on major streets. For side street stop-controlled intersections, the level of service is reported based on the average delay for the worst approach. The level of service definitions for unsignalized intersections is shown in Table 5. This study utilizes TRAFFIX software to determine intersection levels of service based on the 2000 HCM methodology for unsignalized intersection.

Table 4
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay Per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though some vehicles may still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered to be the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0
Source: Transportation Research Board, <i>2010 Highway Capacity Manual</i> (Washington, D.C., 2010)		

Table 5
Unsignalized Intersection Level of Service Definitions Based on Average Delay

Level of Service	Description	Average Delay Per Vehicle (Sec.)
A	Little or no traffic delay	10.0 or less
B	Short traffic delays	10.1 to 15.0
C	Average traffic delays	15.1 to 25.0
D	Long traffic delays	25.1 to 35.0
E	Very long traffic delays	35.1 to 50.0
F	Extreme traffic delays	greater than 50.0
Source: Transportation Research Board, <i>2010 Highway Capacity Manual</i> (Washington, D.C., 2000)		

Definition of Adverse Intersection Operations Effects

Adverse operations effects on signalized intersections are based on the City of Mountain View and CMP level of service standards. The City of Mountain View has applied adverse effect criteria for unsignalized intersections. Adverse intersection operation effects are described below.

According to the City of Mountain View and CMP level of service standards, a development is said to create an adverse operations effect on traffic conditions at a study intersection if for either peak hour, either of the following conditions occurs:

1. The level of service at the intersection drops below its respective level of service standard (LOS D or better for local intersections and LOS E or better for CMP intersections) when project traffic is added, or
2. An intersection that operates below its level of service standard under no-project conditions experiences an increase in critical-movement delay of four (4) or more seconds, and an increase in critical volume-to-capacity ratio (v/c) of one percent (0.01) or more when project traffic is added.

The exception to this threshold is when the addition of project traffic reduces the amount of average control delay for critical movements, i.e., the change in average control delay for critical movements are negative. In this case, the threshold is when the project increases the critical v/c value by 0.01 or more. An adverse operations effect is said to be satisfactorily mitigated when measures are implemented that would restore intersection conditions to its acceptable level of service or to an average delay that is better than no-project conditions.

Intersection Operations Analysis Results

The intersection level of service analysis is summarized in Table 6. The level of service calculation sheets are included in Appendix D.

Existing Intersection Operation Conditions

Intersection levels of service were evaluated against applicable City of Mountain View operations standards. The results of the level of service analysis show most study intersections currently operate at an acceptable LOS D or better during both the AM and PM peak hours. Based on prior field observations at the intersection of Shoreline Boulevard & US 101 Northbound Off-Ramp/La Avenida Street, both peak hours often require vehicles to wait more than one signal cycle. The field observations indicate that the intersection currently operates at LOS F during both peak hours.

Future Intersection Operation Conditions

The operations analysis shows that most of the study intersections are projected to operate at acceptable levels of service, under background conditions and background plus project conditions during both the AM and PM peak hours. The intersection of Shoreline Boulevard & US 101 Northbound Off-Ramp/La Avenida Street will operate at LOS F during both peak hours under background conditions, with and without the project. Since the project would not cause the critical movement delay to increase by 4 or more seconds, the project would not have an adverse effect at the intersection.

The intersection of Linda Vista Avenue & Middlefield Road operates at LOS E during the AM peak hour, with and without the project and would degrade from LOS D to LOS E during the PM peak hour. During the AM peak hour, the driveway (south leg) of the intersection experiences the most delay. The north leg (to which project would add trips) would also operate at LOS E with the project during the AM peak

hour). During the PM peak hour, the north leg of the intersection experiences the most delay. Under background conditions, the intersection would operate at a substandard level of service during the AM peak hour. Since the addition of project generated trips would not cause the critical delay to increase by 4 or more seconds, the project would not have an adverse effect at the intersection during the AM peak hour. The addition of project generated trips would degrade the operating level of service from LOS D to LOS E during the PM peak hour. The project proposes to implement a Transportation Demand Management (TDM) plan for the affordable housing portion of the project. Based on the calculations described in the TDM plan, the implementation of a TDM program is estimated to reduce vehicle trips generated by the project by 15%. The multi-modal improvements proposed by the project would also encourage future residents to walk, bike, or use transit instead of driving. With the implementation of a TDM plan, the PM peak hour would no longer degrade to LOS E and would not have an adverse effect on traffic operations at this intersection.

Table 6
Intersection Level of Service Results

#	Intersection	Peak Hour	Existing		No Project		Background			
			No Project		No Project		with Project			
			Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS	Incr. in Critical Delay (sec)	Incr. in Critical V/C
1	Shoreline Boulevard & US 101 Northbound Off-Ramp/La Avenida Street	AM	80+	F ²	80+	F ²	80+	F ²	0.1	0.000
		PM	80+	F ²	80+	F ²	80+	F ²	0.0	0.001
2	Shoreline Boulevard & US 101 Southbound Ramps	AM	22.3	C	20.9	C	21.0	C	0.2	0.006
		PM	22.3	C	19.4	B	19.6	B	0.3	0.008
3	Shoreline Boulevard & Terra Bella Avenue	AM	20.9	C	34.2	C	35.3	D	1.5	0.013
		PM	16.9	B	31.5	C	32.7	C	0.8	0.006
4	Linda Vista Avenue & Terra Bella Avenue ¹	AM	10.5	B	10.5	B	10.8	B	0.3	0.007
		PM	9.9	A	9.9	A	10.2	B	0.8	0.006
5	Linda Vista Avenue & Middlefield Road ¹	AM	34.3	D	40.8	E	42.2	E	0.6	0.121
		PM	23.4	C	28.6	D	35.1	E	0.6	0.108
TDM Plan mitigation (-15% affordable housing trips)		AM					42.1	E	0.3	0.042
		PM					34.4	D	0.5	0.100

Bold indicates a substandard level of service.

Note:

¹ Denotes two-way stop-controlled intersection. The worst leg delay is reported.

² The calculated LOS does not reflect the unmet vehicle demand that cannot get through the intersection during the peak hour. Prior field observations indicate that the intersection operates at LOS F with 80+ seconds of average delay during one or both peak hours.

Signal Warrant Analysis

The need for signalization of an unsignalized intersection is assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the *California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD)*, Part 4, Highway Traffic Signals, 2014. This method makes no evaluation of intersection level of service, but simply provides an indication whether vehicular peak hour traffic volumes are, or would be, sufficient to justify installation of a traffic signal. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Additional analysis may include unsignalized level of service analysis and/or operational analysis such as evaluating vehicle queuing and delay. Other options such as traffic control devices, signage, or geometric changes may be preferable based on existing field conditions.

In order to meet the peak-hour traffic signal warrant, minor streets must have a volume of at least 100 vehicles per hour. Since the minor streets at both unsignalized intersections do not meet the 100 vehicle per hour threshold, it can be concluded that neither unsignalized intersection meets the peak hour traffic warrant.

Intersection Queuing Analysis

The analysis of intersection operations was supplemented with a vehicle queuing analysis at intersections where the project would add a substantial number of trips to left-turn movements. The queuing analysis is presented for informational purposes only, since the City of Mountain View has not defined a policy related to queuing. Vehicle queues were estimated using a Poisson probability distribution, which estimates the probability of “n” vehicles for a vehicle movement using the following formula:

$$P(x=n) = \frac{\lambda^n e^{-\lambda}}{n!}$$

Where:

$P(x=n)$ = probability of “n” vehicles in queue per lane

n = number of vehicles in the queue per lane

λ = average # of vehicles in the queue per lane (vehicles per hr per lane/signal cycles per hr)

The basis of the analysis is as follows: (1) the Poisson probability distribution is used to estimate the 95th percentile maximum number of queued vehicles for a particular left-turn movement; (2) the estimated maximum number of vehicles in the queue is translated into a queue length, assuming 25 feet per vehicle; and (3) the estimated maximum queue length is compared to the existing or planned available storage capacity for the left-turn movement. This analysis thus provides a basis for estimating future turn pocket storage requirements at intersections.

For signalized intersections, the 95th percentile queue length value indicates that during the peak hour, a queue of this length or less would occur on 95 percent of the signal cycles, or, a queue length larger than the 95th percentile queue would only occur on 5 percent of the signal cycles (about 3 cycles during the peak hour for a signal with a 60-second cycle length). Thus, turn pocket storage designs based on the 95th percentile queue length would ensure that storage space would be exceeded only 5 percent of the time for a signalized movement. Vehicle queuing at unsignalized intersections are evaluated based on the delay experienced at the specific study turn movement. The operations analysis is based on vehicle queuing for high-demand movements at intersections (see Table 7).

The proposed project would add a substantial number of trips (10 or more) to left-turn movements at one study intersection, as described below. As shown in Table 7, the queue for the southbound left turn would exceed the storage length under existing, background conditions, and background plus project conditions.

Shoreline Boulevard & Terra Bella Avenue

The existing southbound left-turn storage length is approximately 150 feet. As part of the mitigation measures for a previously approved project, the left-turn storage pocket will be extended to 350 feet under background conditions. Under all scenarios, the Shoreline Boulevard & Terra Bella Avenue intersection was calculated to have insufficient storage for the southbound left-turn movement during the AM peak hour. The project would add 12 vehicles during the AM peak hour to the southbound left-turn movement. This equates to at most one vehicle during the heaviest cycles and would cause an adverse effect at the intersection. Based on the calculations described in the TDM plan, the implementation of a TDM program is estimated to reduce vehicle trips generated by the project by

15%. With this reduction, the project is estimated to add 10 vehicles during the AM peak hour to the southbound left-turn movement and would not extend the 95th percentile AM peak hour queue under background conditions.

Table 7
Queuing Analysis Summary

Measurement	Shoreline Boulevard & Terra Bella Avenue			
	SBL		SBL (with TDM)	
	AM	PM	AM	PM
Existing				
Cycle/Delay ¹ (sec)	150	145	150	145
Volume (vphpl)	232	44	232	44
95th %. Queue (veh/ln.)	15	4	15	4
95th %. Queue (ft./ln.) ²	375	100	375	100
Storage (ft./ ln.)	150	150	150	150
Adequate (Y/N)	N	Y	N	Y
Background				
Cycle/Delay ¹ (sec)	160	165	160	165
Volume (vphpl)	269	100	269	100
95th %. Queue (veh/ln.)	18	8	18	8
95th %. Queue (ft./ln.) ²	450	200	450	200
Storage (ft./ ln.)	350	350	350	350
Adequate (Y/N)	N	Y	N	Y
Background Plus Project				
Cycle/Delay ¹ (sec)	160	165	160	165
Volume (vphpl)	281	124	279	121
95th %. Queue (veh/ln.)	19	10	18	10
95th %. Queue (ft./ln.) ²	475	250	450	250
Storage (ft./ ln.)	350	350	350	350
Adequate (Y/N)	N	Y	N	Y
Notes: SBL = southbound left movement ¹ Vehicle queue calculations based on cycle length. ² Assumes 25 Feet Per Vehicle Queued.				

Site Access and On-Site Circulation

Site access was evaluated to determine the adequacy of the site's access points with regard to the following: traffic volume, delays, vehicle queues, geometric design, and corner sight distance. On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

Affordable Housing Building

The evaluation of site access and circulation for the affordable housing building is based on the September 2022 site plan prepared by Van Mater Williams Pollack. The ground level site plan is shown on Figure 12. The second-floor site plan is shown on Figure 13.

Project Driveway Design

Vehicular access to the ground level parking garage would be provided via a full access driveway on Terra Bella Avenue. Vehicular access to the second level parking garage would be provided via a full access driveway on San Rafael Avenue. The driveway on Terra Bella Avenue would measure approximately 22 feet in width. The driveway on San Rafael Avenue would measure 20 feet in width. These widths are adequate for a two-way driveway, as described in the City of Mountain View's Zoning Ordinance, Section 36.32.80(e).

Sight Distance at Project Driveways

The project driveways should be free and clear of any obstructions to optimize sight distance per the City's Standard Details A-22, thereby ensuring the exiting vehicles can see pedestrians coming from either direction on the sidewalk and other vehicles or bicycles traveling on the street. Any landscaping and signage within the pedestrian triangle and vehicle triangle at the driveway should be no taller than 3 feet and in such a way to ensure an unobstructed view for drivers exiting the site. Tree canopies should be maintained so that they are at least 6 feet off of the ground. The posted speed limit along Terra Bella Avenue and San Rafael Avenue is 25 mph. According to the City's Standard Detail A-22, the stopping sight distance for a 25-mph roadway is 150 feet.

The project's civil site plan (see Figure 14) shows the clear sight triangles per the City's Standard Detail A-22. There are no roadway curvatures on Terra Bella Avenue and San Rafael Avenue that would obstruct the vision of exiting drivers at either driveway. The project site plan shows trees that would be planted along both streets. The canopies of the trees should be maintained so that they do not block the vision of exiting drivers. Both streets permit on-street parking that could obstruct the vision of exiting drivers if there were cars parked next to the driveways. Approximately 25 feet of red curb should be painted on both sides of the driveways along Terra Bella Avenue and San Rafael Avenue. Providing red curb adjacent to a driveway would allow drivers to see along the traveled way. If red curb is not provided, a large vehicle could potentially block the line of sight along the roadway. Sight distance exhibits at the project driveways are provided in Appendix E.

Recommendation: Approximately 25 feet of red curb should be painted on both sides of the project driveways

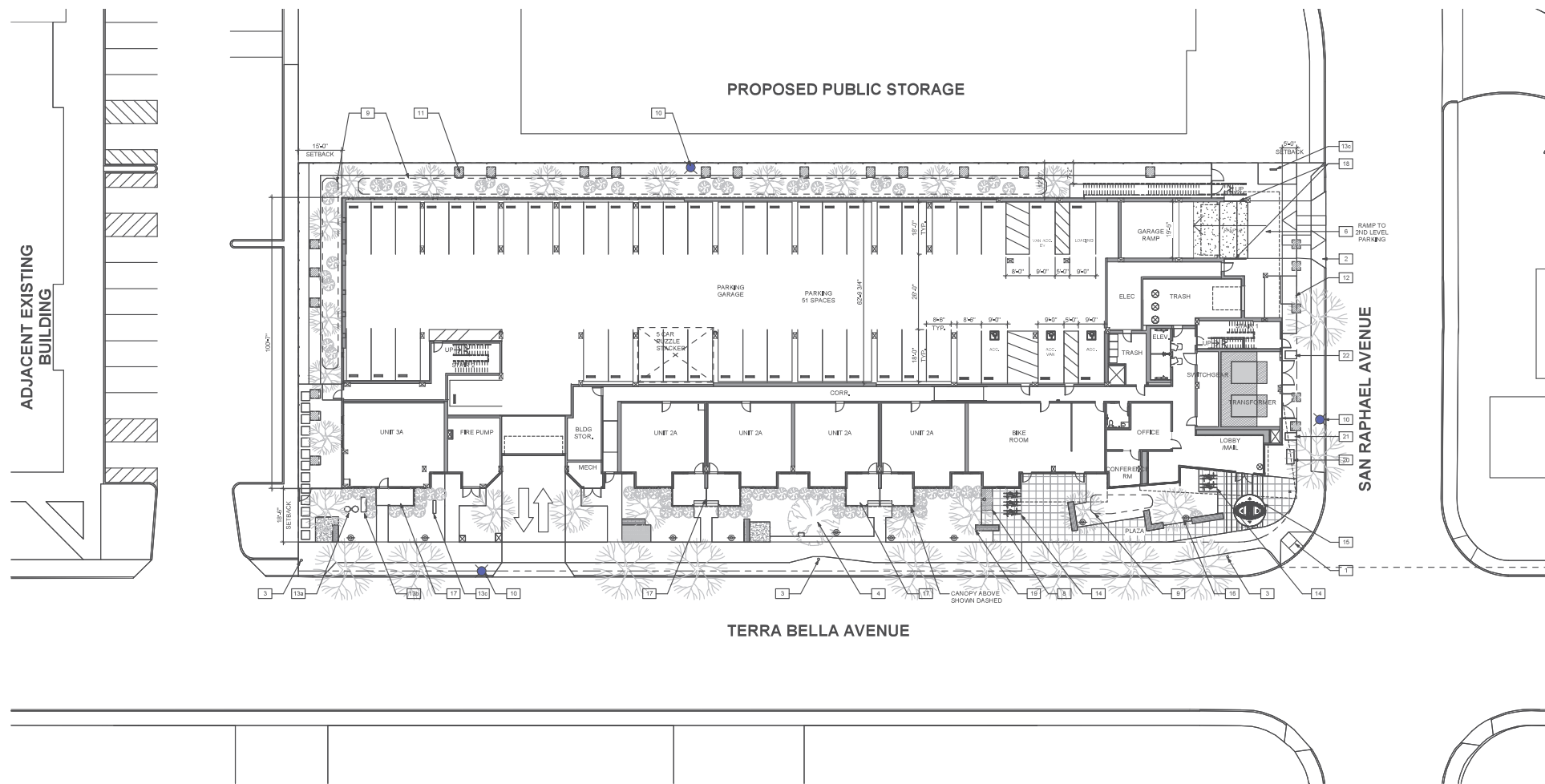


Figure 12
Affordable Housing Ground Level Site Plan



NORTH
Not to Scale

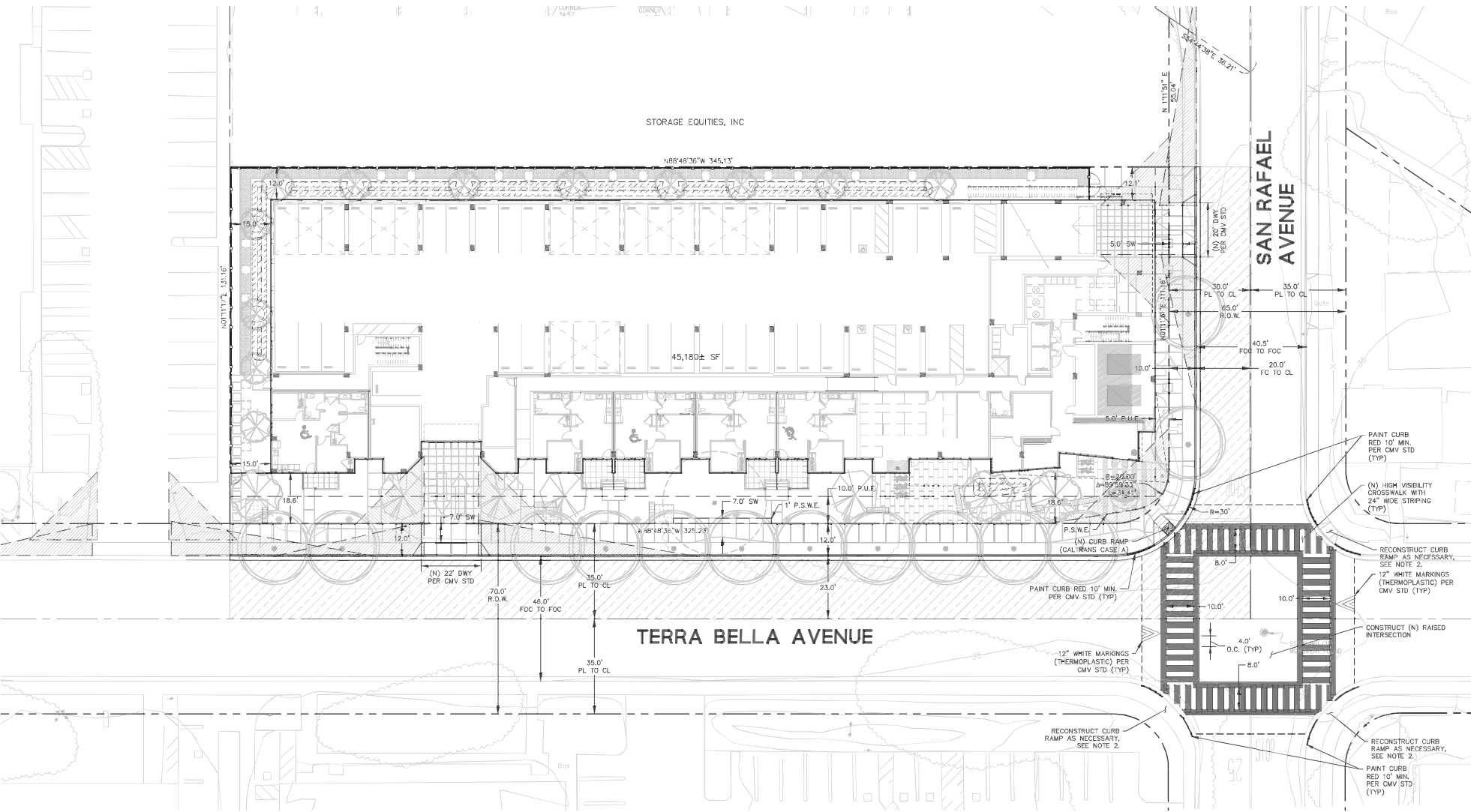


Figure 14
Affordable Housing Civil Site Plan

Project Driveway Operations

Based on the number of parking spaces provided on the first and second levels, approximately 60% of vehicles would be parked at ground level, utilizing the Terra Bella Avenue driveway, and the remaining 40% would be parked on the second level, utilizing the San Rafael Avenue driveway. The estimated number of trips at each project driveway is shown on Figure 15.

The trips that are estimated to occur at the Terra Bella Avenue driveway are 18 inbound trips and 24 outbound trips in the AM peak hour and 31 inbound trips and 28 outbound trips during the PM peak hour. The trips that are estimated to occur at the San Rafael Avenue driveway are 11 inbound trips and 15 outbound trips in the AM peak hour and 21 inbound trips and 18 outbound trips during the PM peak hour. Due to the relatively low traffic volume along both streets, significant operational issues related to vehicle queueing and vehicle delay for inbound and outbound traffic are not expected to occur at the driveways. Vehicles turning left into the project site from either street may block the travel lane momentarily due to vehicles slowing down to turn into the driveway, but this would not have a significant effect on traffic operations. Given the small number of estimated outbound trips at each driveway, the probability of two or more outbound vehicles exiting the site at the same time would be low. The maximum queue is not expected to affect the on-site circulation.

Vehicle On-Site Circulation

The project would provide 90-degree uniform parking stalls throughout the garage areas. The project proposes an internal drive aisle of at least 26 feet width within the garage areas, which is adequate to allow vehicles to maneuver in and out of 90-degree parking spaces.

According to City's Standard Details A-24, transition slopes should be provided at the two ends of the ramps with a minimum length of 10 feet to avoid vehicles bottoming out. The city also requires a car length (20 feet) of flat area approaching surface lots at garage exits. The slope of the parking garage ramp to the second level parking area is shown to be 20 percent with 10 percent transition slopes on either end. A minimum 20-foot flat area would be provided approaching the ground level. Therefore, the proposed parking garage ramp is adequate for vehicle access.

On-site vehicle circulation was also evaluated to identify whether there are dead-end aisles within the garage areas. Dead-end aisles are undesirable because drivers can enter the aisle, and upon discovering that there is no available parking, must back out or conduct three-point turns. Since the parking areas on both levels consist of a single drive aisle, dead ends are present at the ends of each level. Parking spaces should be assigned so that residents do not have to look for a space and turn around if there is not a space available at the end.

The project site plan shows several mechanical vehicle puzzle stackers on the ground level parking garage. Since the mechanical vehicle stackers will require knowledge of how to use them, residents assigned a space in the parking stackers should be provided instructions on how to use the lifts. Additionally, clear signage and instructions should be posted outside of each stacker with guidance on how to operate the mechanical stackers.

Recommendation: Parking spaces should be assigned so that residents do not have to look for a space and turn around if there is not a space available at the end of the aisle.



Parking Stall Dimensions

Parking spaces are shown to be 18 feet long by 8.5 feet wide for standard parking spaces and 18 feet long by 9 feet wide for accessible parking spaces. According to the City of Mountain View Zoning Code all standard parking stalls should be at least 8.5 feet in width by 17 feet in length. The proposed parking space dimensions would meet the City requirements.

Truck, Garbage, and Emergency Vehicle Access

Emergency vehicle access would be provided along Terra Bella Avenue and San Rafael Avenue. The site plan shows a loading space on the first level of the parking garage. This space measures 18 feet long by 9 feet wide. Since the drive aisle measures 26 feet, this space is only adequate for normal size vehicles. Large vehicles, such as delivery trucks, would have trouble accessing the garage.

The site plan shows a trash room on the ground level: one adjacent to the parking area and one located near the garage entrance on San Rafael Avenue. The site plan shows a trash pick-up staging area along San Rafael Avenue. Trash bins would need to be wheeled out to the loading zone on trash pick-up days.

Recommendation: Trash bins would need to be wheeled out to the trash pick-up area on trash pick-up days.

Public Storage Site

The evaluation of site access and circulation for the Public Storage is based on the September 2022 site plan prepared by Ware Malcomb. The project site plan is shown on Figure 16.

Project Driveway Design

Vehicular access to the project site would be provided via a full access driveway along Linda Vista Avenue and a full access driveway along San Rafael Avenue. The driveway to Linda Vista Avenue is existing, and the driveway to San Rafael Avenue would be new. Both driveways are located at the cul-de-sac of their respective streets, and both driveways would measure 26 feet in width. These widths are adequate for a two-way driveway, as described in the City of Mountain View's Zoning Ordinance, Section 36.32.80(e).

Sight Distance at Project Driveways

The project driveways should be free and clear of any obstructions to optimize sight distance per the City's Standard Details A-22, thereby ensuring the exiting vehicles can see pedestrians coming from either direction on the sidewalk and other vehicles or bicycles traveling on the street. Any landscaping and signage within the pedestrian triangle and vehicle triangle at the driveway should be no taller than 3 feet and in such a way to ensure an unobstructed view for drivers exiting the site. Tree canopies should be maintained so that they are at least 6 feet off of the ground. The posted speed limit along Linda Vista Avenue and San Rafael Avenue is 25 mph. According to the City's Standard Detail A-22, the stopping sight distance for a 25-mph roadway is 150 feet.

The project's civil site plan (see Figure 17 and 18) shows the clear sight triangles per the City's Standard Detail A-22. There are no roadway curvatures on Linda Vista Avenue and San Rafael Avenue that would obstruct the vision of exiting drivers at either driveway. As previously mentioned, both driveways are located at the cul-de-sac of both streets. A clear line of sight should be provided between a vehicle exiting the driveway and the traveled way. The project site plan shows trees that would be planted along both streets. The canopies of the trees should be maintained so that they do not block the vision of exiting drivers. Both streets permit on-street parking and could obstruct the vision of exiting drivers if there



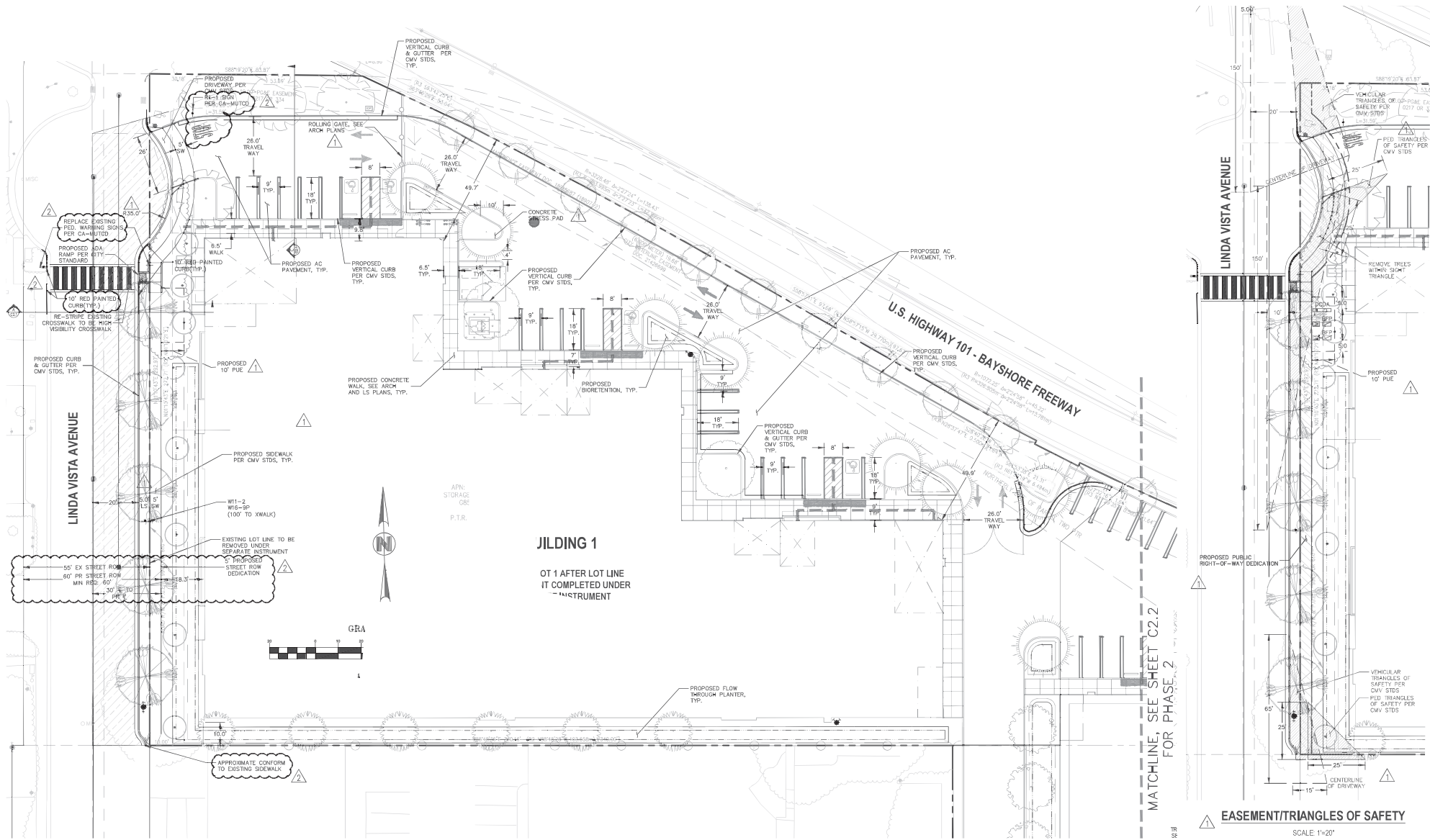


Figure 17
Public Storage Civil Site Plan

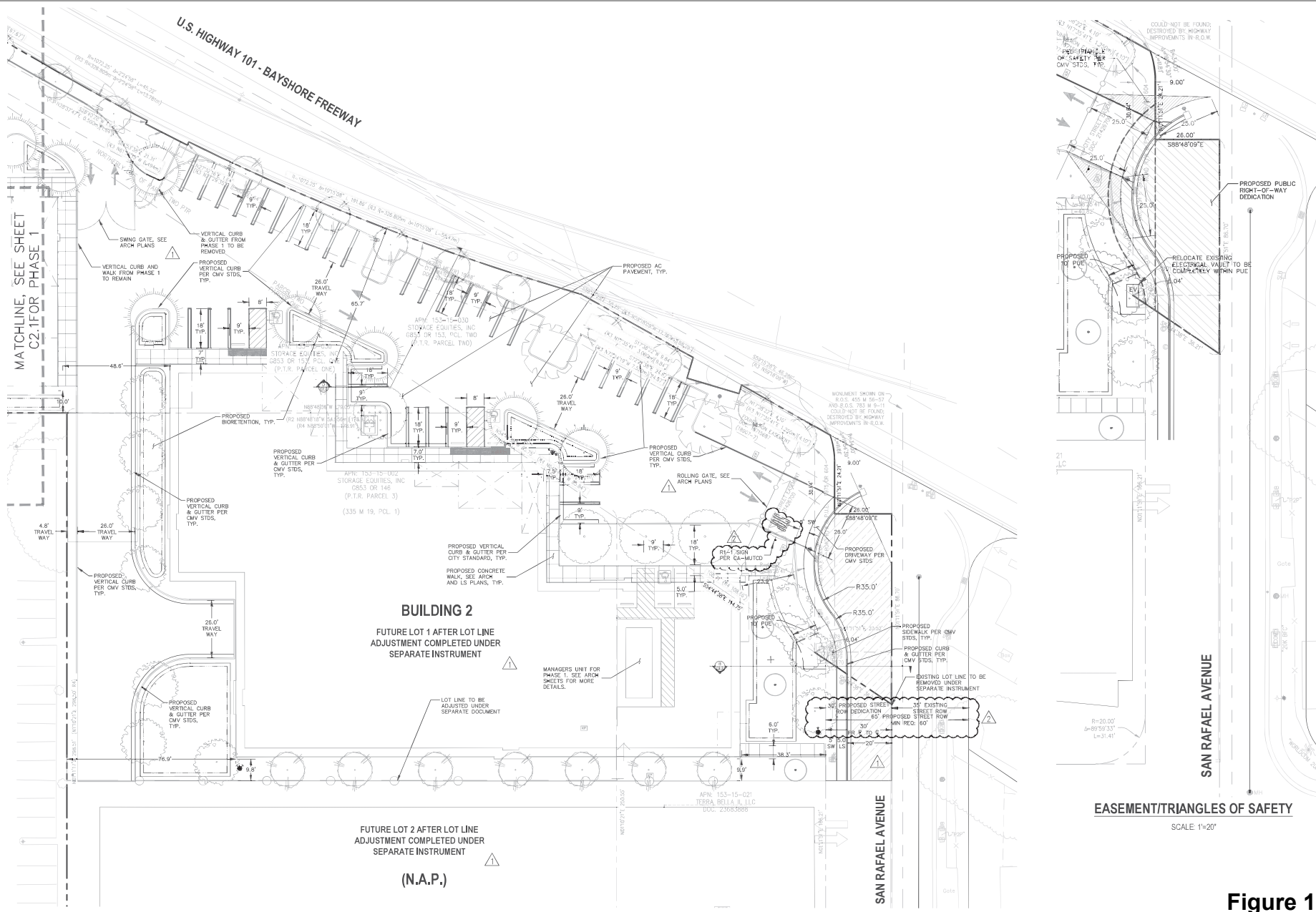


Figure 18
Public Storage Civil Site Plan (cont.)

were cars parked next to the driveways. The entire cul-de-sac at the end of Linda Vista Avenue should be painted with red curb to ensure parked vehicles do not obstruct the vision of exiting drivers. Similarly, half of the cul-de-sac along the project frontage on San Rafael Avenue should be painted with red curb to ensure parked vehicles do not obstruct the vision of exiting drivers. Providing red curb adjacent to a driveway would allow drivers to see along the traveled way. If red curb is not provided, a large vehicle could potentially block the line of sight along the roadway.

Recommendation: Red curb should be painted in the cul-de-sac on Linda Vista Avenue

Recommendation: Red curb should be painted along the project frontage at the San Rafael cul-de-sac

Project Driveway Operations

Since the leasing office would be located near the Linda Vista Avenue driveway, it is presumed most trips would occur at this driveway. In a worst-case scenario where all vehicle trips utilize one driveway, the trips that are estimated to occur are 11 inbound trips and 18 outbound trips in the AM peak hour and 30 inbound trips and 20 outbound trips during the PM peak hour. Due to the relatively low traffic volume along both streets, significant operational issues related to vehicle queueing and vehicle delay for inbound and outbound traffic are not expected to occur at either driveway. Vehicles turning into the project site from either street may block the travel lane momentarily due to vehicles slowing down to turn into the driveway, but this would not have a significant effect on traffic operations. Given the small number of estimated outbound trips at each driveway, the probability of two or more outbound vehicles exiting the site at the same time would be low. The maximum queue is not expected to affect the on-site circulation.

Vehicle On-Site Circulation

The project would provide mostly 90-degree uniform parking stalls throughout the project site. Parking spaces would be located perpendicular to buildings and the northern project boundary. The project proposes internal drive aisles of at least 26 feet in width throughout the parking areas, which is adequate to allow vehicles to maneuver in and out of 90-degree parking spaces.

On-site vehicle circulation was also evaluated to identify whether there are dead-end aisles within the parking areas. There would be one dead-end within the project site located near the rear of Building 2. The site plan shows a gate that prevents entry to the dead-end fire access road.

Parking Stall Dimensions

Parking spaces are shown to be 18 feet long by 9 feet wide for standard parking spaces. According to the City of Mountain View Zoning Code all standard parking stalls should be at least 8.5 feet in width by 17 feet in length. The proposed parking space dimensions would meet the City requirements.

Truck, Garbage, and Emergency Vehicle Access

Emergency vehicle access would be provided along Linda Vista Avenue and San Rafael Avenue. The site plan provides adequate circulation for trucks and emergency vehicles. The site plan shows a trash enclosure within the parking area located near Building 1. Trash collection vehicles can access the enclosure area via either project driveway.

Parking Supply

Vehicular Parking

The vehicular parking requirements for the project were calculated based on the City of Mountain View municipal code (Chapter 36.32.50). The city's municipal code does not specifically address requirements for affordable housing. Based on the standard rate for multi-family residential developments, parking is required at a rate of 1.5 spaces per studio or one-bedroom unit under 650 s.f. and two spaces per one-bedroom over 650 s.f. and two-or-more bedroom units. Based on the proposed unit mix of 2 studios, 49 one-bedroom, 29 two-bedroom, and 28 three-bedroom units, the affordable housing building would be required to provide 191 parking spaces.

The Public Storage portion of the project is required to provide parking at 1 space per 2,000 s.f. of gross floor area and 2 spaces for any resident manager. The project proposes an option to have an on-site facility manager. Based on the proposed 408,964 s.f. of floor space for the Public Storage, the project would be required to provide 206 parking spaces (204 for the floor space and 2 for an on-site resident manager).

Parking Demand Analysis

Since residents of an affordable housing development are less likely to own multiple vehicles, a parking analysis was conducted to determine the number of spaces an affordable housing development should provide. The analysis included parking occupancy counts on a typical weekday and a Saturday at two affordable housing developments in the area. The peak parking demand for residential uses are typically in the middle of the night. Therefore, parking occupancy counts were conducted between 2:00 and 3:00 AM.

Since parking demand at a personal storage facility is expected to be less than the requirements of the City's municipal code, a parking analysis of similar Public Storage facilities was conducted to determine parking demand. The parking analysis included parking occupancy counts at two similar Public Storage facilities on a typical weekday and a Saturday. Parking occupancy counts at the Public Storage facilities were conducted every 15 minutes from 6:00 AM – 9:00 PM. Additionally, previous parking occupancy counts for a personal storage facility were used for the analysis.

The following sites were counted for the parking analysis:

Affordable Housing:

1. Evelyn Family Apartments (779 E. Evelyn Avenue, Mountain View, CA)
2. Parkview Family Apartments (360 Meridian Avenue, San Jose, CA)*
*Site contains 44 closed garages. It is assumed all 44 garages contained one parked vehicle

Public Storage:

1. Public Storage (1040 Terra Bella Avenue, Mountain View, CA)
2. Public Storage (1060 Stewart Drive, Sunnyvale, CA)
3. Public Storage (875 E Arques Avenue, Sunnyvale, CA) (Prior Parking Study in 2019)
4. Public Storage (317 Weddell Drive, Sunnyvale, CA) (Prior Parking Study in 2019)
5. Public Storage (5679 Santa Teresa Boulevard, San Jose, CA) (Prior Parking Study in 2019)

The parking occupancy counts can be found in Appendix E.

Table 8 shows the results of the parking occupancy counts of similar affordable housing developments on a typical weekday and a Saturday. The results show that similar affordable housing developments in the region have an average of 1.36 parked vehicles per unit and .83 parked vehicles per bedroom on a typical weekday and 1.31 parked vehicles per unit and .80 parked vehicles per bedroom on a Saturday.

Table 8
Parking Demand (Affordable Housing)

Site #	Location	Units	Bed-rooms	Parking Spaces	Weekday	Saturday	Weekday Demand		Saturday Demand	
					Max. Observed Parking Demand	Max. Observed Parking Demand	per Unit	per Bedroom	per Unit	per Bedroom
1	779 E. Evelyn Avenue	116	191	194	184	178	1.586	0.963	1.534	0.932
2	360 Meridian Avenue ¹	90	148	106	96	92	1.067	0.648	1.022	0.621
Weighted Average							1.36	0.83	1.31	0.80

Notes:
1. Bedroom Count is unavailable. It is assumed this site would have a similar ratio of units to bedrooms.

The project would provide 10 units for individuals that are developmentally disabled and 27 units for rapid housing. The applicant has provided information based on similar projects, stating the parking ratios provided for these uses are .85 spaces per unit for the individuals that are developmentally disabled and .6 spaces per unit for rapid housing. These ratios have been observed at similar developments from Alta Housing. The remaining 71 units would require 1.36 parking spaces per unit, as found in the parking occupancy count study.

Based on the parking ratios provided by the applicant and the observed parking demand at similar affordable housing developments in the region, the affordable housing component of the project would be required to provide 123 parking spaces (see Table 9). The project proposes to implement a TDM program to reduce the parking demand generated by the project. Based on the TDM strategies that would reduce vehicle ownership rates, the TDM program is conservatively estimated to reduce parking demand by 15% with the possibility to reduce parking demand by up to 40%. Therefore, the affordable housing component of the project should provide a minimum of 74 parking spaces.

Table 9
Parking Requirement (Affordable Housing)

Affordable Housing Component	Ratio	Units	Required
Individuals with Different Mental Abilities	0.85 per unit	10	9
Rapid Housing	0.60 per bedroom	27	17
Affordable Units	1.36 per unit	71	97
Total		108	123
<i>Transportation Demand Management (-40%)</i>			-49
Total Parking Required			74

Table 10 shows the results of the parking occupancy counts of Public Storage facilities on a typical weekday and a Saturday. The results show that Public Storage facilities in the region have an average peak parking demand of .07 parked vehicles per 1,000 s.f. on a typical weekday and on a Saturday. The highest facility had a maximum demand of .17 parked vehicles per 1,000 s.f. and .15 parked vehicles per 1,000 s.f. on a typical weekday and a Saturday, respectively. It is recommended that the average parked vehicle rate be used to calculate the peak parking demand instead of the maximum parking demand rate to eliminate potential outliers. Based on the average peak parking demand rate for

Public Storage facilities, the Public Storage site should provide a minimum of 29 parking spaces (.07 parking spaces X 408,964 s.f.).

Table 10
Parking Demand (Public Storage)

Site #	Location	Square Feet (GSF)	Weekday	Saturday	Weekday	Saturday
			Max. Observed Parking Demand	Max. Observed Parking Demand	per 1,000 GSF	per 1,000 GSF
1	1040 Terra Bella Ave, Mt. View	52,610	9	8	0.171	0.152
2	1060 Stewart Dr, Sunnyvale	293,455	12	15	0.041	0.051
3	875 E. Arques Ave, Sunnyvale	216,607	13	14	0.060	0.065
4	317 Weddell Dr, Sunnyvale	47,796	4	4	0.084	0.084
5	5679 Santa Teresa Blvd, San Jose	70,278	7	6	0.100	0.085
			Weighted Average		0.07	0.07
			Maximum Observed		0.17	0.15

Project Parking

The project proposes to provide 96 parking spaces within the two-level parking garage for the affordable housing site and 66 surface parking spaces within the Public Storage site. The affordable housing site would provide 27 fewer spaces than the recommended number of parking spaces based on the parking ratios provided by the applicant and the observed parking demand at similar affordable housing developments in the region. The project proposes to implement a TDM program that would conservatively reduce parking demand by 15% and up to 40%. With the implementation of the TDM program, the proposed 96 parking spaces for the affordable housing site is adequate. The Public Storage site would provide 37 more parking spaces than the demand observed at other Public Storage facilities.

Bicycle Parking

The bicycle parking requirements for the project were calculated based on the City of Mountain View municipal code. Since parking requirements for affordable housing are not specifically addressed, it is assumed bicycle parking is required at the same rate as multi-family dwellings. According to the City's Bicycle Parking Standards (Chapter 36.32.50), bicycle parking for the proposed project is required at a rate of one secure bicycle parking space per unit for residents and one short-term space per 10 units for guests. The City's Bicycle Parking Standards do not require any bicycle parking spaces for personal storage facilities.

Based on the City's bicycle parking requirements, the project would be required to provide a total of 108 secure bicycle parking spaces and 11 short-term bicycle parking spaces for guests. The City's definition of long-term and short-term bicycle parking is described below.

The affordable housing site would provide a total of 108 bicycle spaces for residents and 12 short-term bicycle parking spaces. The site plan for the public storage facility shows two short-term bike racks near the leasing office. The project meets the required number of short-term and long-term bicycle parking spaces. The site plan shows a secure bicycle storage room and bike repair station on the ground level of the residential building. Short-term bike racks for guests are shown near the entrance to the lobby and near the entrance to the bicycle storage room.

City of Mountain View Classification of Bicycle Parking Facilities

Class I facilities. Intended for long-term parking (e.g., for employees); protects against theft of entire bicycle and of its components and accessories. The facility shall also protect the bicycles from

inclement weather, including wind-driven rain. Three (3) design alternatives for Class I facilities are as follows:

- (a) **Bicycle locker.** A fully enclosed, weather-resistant space accessible only by the owner or operator of the bicycle. Bicycle lockers may be premanufactured or designed for individual sites. All bicycle lockers shall be fitted with key locking mechanisms. This is the preferred Class I facility;
- (b) **Restricted access.** Class III bicycle parking facilities located within an interior locked room or locked enclosure accessible by key only to the owners or operators of the bicycles parked within. The maximum capacity of each restricted room or enclosure shall be ten (10) bicycles; and
- (c) **Enclosed cages.** An exterior enclosure for individual bicycles, where contents are visible from the sides but the top is covered, and which can be securely locked by a user-provided lock. This type of facility is only to be used for retail and service uses and multiple-family development.
- (d) **Other.** Class I facilities other than lockers, restricted access rooms or enclosed cages, but providing the same level of security, may be approved by the zoning administrator. A written building management policy of permitting bicycles to be stored in private offices or multi-family dwellings (including apartments, townhomes and condominiums), or in designated areas within the structure where adequate security is provided, may be approved by the zoning administrator as an alternative to Class I facilities.

Class II and Class III facilities. Intended for short term parking (e.g., for shoppers, visitors). A stationary object to which the user can lock the frame and both wheels. Should be protected from weather whenever possible. The zoning administrator may require either a Class II or Class III facility depending on where the facilities are to be located.

- (a) **Class II.** Class II facilities are designed so that the lock is protected from physical assault and therefore the facility need not be within constant visual range. A Class II rack shall accept padlocks and high security, U-shaped locks.
- (b) **Class III.** Class III facilities are less secure and, therefore, shall be within constant visual range of persons within the adjacent structure or located in well-traveled pedestrian areas.

Pedestrian, Bicycle, and Transit Facility Assessment

The following describes the existing and future transit, pedestrian and bicycle facilities that serve the site and evaluates whether appropriate bicycle and pedestrian access and transit service are provided between the site and nearby destinations.

Pedestrian Transportation

Pedestrian Access and Circulation

Pedestrian access to the project site is provided via sidewalks on Terra Bella Avenue, San Rafael Avenue and Linda Vista Avenue. The affordable housing building would reconstruct the sidewalks along the project frontage and provide walkways and a pedestrian plaza to and from the sidewalk to building entrances. Similarly, the public storage facility would reconstruct the sidewalks along its frontage and provide walkways throughout the project site. The project proposes to upgrade the San Rafael Avenue/Terra Bella Avenue intersection with a raised intersection and install “ladder” style

crosswalks along all approaches (see Figure 19). A raised crosswalk would reduce vehicle speeds approaching the intersection, decreasing the likelihood of vehicle and pedestrian collisions. A new curb ramp is proposed at the northwest corner in front of the proposed project. Curb ramps at the remaining three corners would be reconstructed to accommodate the new raised intersection. The project also proposes to construct a new curb ramp to serve the existing crosswalk near the cul-de-sac along Linda Vista Avenue. The crosswalk will be restriped to be a high-visibility “ladder” style crosswalk.

Pedestrian Infrastructure, Safety, and User Experience

Pedestrian facilities in the study area consist of sidewalks and crosswalks. A complete network of sidewalks is present along all of the surrounding streets. Crosswalks with pedestrian signal heads are located at all of the signalized study intersections in the study area.

According to the 2015 General Plan, a neighborhood is walkable when people can travel comfortably and safely on foot to many destinations. Convenient walking distance is considered to be a half mile to a mile, a walk that would take 10 to 20 minutes. Within a mile of the project site, there are a few restaurants and a grocery store (along Shoreline Boulevard at Montecito Avenue) and bus stops along Shoreline Boulevard and Middlefield Road. Other pedestrian generators include San Veron Park and the Stevens Creek multi-use trail.

As part of the Shoreline Boulevard Bus Lane and Utility Improvements, the Shoreline Boulevard/Middlefield Road intersection will be upgraded to include a protected intersection design, which will include a pedestrian refuge area that is highly visible to drivers and will reduce the crossing distance across the wide major arterials of Shoreline Boulevard and Middlefield Road. Additionally, the sidewalks and curb ramps at the Shoreline Boulevard/Terra Bella Avenue intersection will be reconstructed and new bus stops added at the intersection servicing the dedicated bus lane.

ADA Access

ADA curb ramps are present at the Linda Vista Avenue/Terra Bella Avenue intersection, which connect the project sites to pedestrian generators along Shoreline Boulevard. As previously described in Chapter 2, ADA curb ramps are missing along the northwest, southwest, and southeast corners of the Shoreline Boulevard/Terra Bella Avenue intersection and the northwest, southwest, and southeast corners of the Shoreline Boulevard/Middlefield Road intersection. It is assumed that the Shoreline Boulevard Bus Lane and Utility Improvements will reconstruct the curb ramps described above to be ADA-compliant curb ramps. With these improvements continuous ADA-compliant pedestrian facilities would connect the project sites to pedestrian generators along Shoreline Boulevard.

Pedestrian Quality of Service

Pedestrian quality of service (PQOS) identifies the level of comfort for pedestrians on any given roadway. Mountain View's Comprehensive Modal Plan (AccessMV), published in May 2021, includes a PQOS map (see Figure 20) that shows continuity or gaps in the pedestrian facilities as indicated with a PQOS score ranging from 1 to 5. A higher PQOS score indicates a low quality of service. The PQOS metric in the AccessMV document covers the following factors:

- Proximity to a variety of destinations and amenities
- Street connectivity and directness of routes to destinations
- Presence of a continuous network of pedestrian facilities
- Motor vehicle traffic speed; and
- Street width and intersection conditions



Figure 19
Proposed Intersection Improvements (San Rafael Ave and Terra Bella Ave)



Source: Access MV, City of Mountain View, 2021

Figure 20
Pedestrian Quality of Service

Based on the PQOS map, the following streets in the project vicinity have a PQOS greater than 2, which is not desirable:

- Terra Bella Avenue (PQOS 3)
- Linda Vista Avenue (north of San Ardo Way) (PQOS 3)
- Linda Vista Avenue (south of San Ardo Way) (PQOS 5)
- San Rafael Avenue (PQOS 4)
- Middlefield Road (between Shoreline Boulevard and Moffett Boulevard) (PQOS 4&5)
- Shoreline Boulevard (north of Middlefield Road) (PQOS 5)

The project would have an adverse effect on pedestrian operations because the project is expected to add vehicle trips to San Rafael Avenue, Linda Vista Avenue, Terra Bella Avenue, Middlefield Road, and Shoreline Boulevard, which have a PQOS score of 3 or more. As described above, it is assumed that the Shoreline Boulevard Bus Lane and Utility Improvements would upgrade existing pedestrian facilities along Shoreline Boulevard and at the intersection of Shoreline Boulevard/Terra Bella Avenue. Additionally, the project would install several improvement features within the project vicinity, including a raised intersection, upgraded curb ramps, and restriped crosswalks to high-visibility crosswalks. The planned improvements by the City of Mountain View and the proposed improvements from the project would increase pedestrian comfort and safety while improving the pedestrian quality of service and are consistent with the guidelines described in the City's Comprehensive Modal Plan.

Bicycle Assessment

Bicycle Access and Circulation

Bicycle access to the project site is via Shoreline Boulevard and Terra Bella Avenue. There are bike lanes on Shoreline Boulevard that connect bicyclists from the North Bayshore area and downtown Mountain View to Terra Bella Avenue and the project area. Terra Bella Avenue carries low traffic, which is conducive to bicycle riders. Part-time bike lanes along Middlefield Road connect the project area to the Whisman area.

As part of the Shoreline Boulevard Bus Lane and Utility Improvements, the Shoreline Boulevard/Middlefield Road intersection will be upgraded to include a protected intersection design, which will include a refuge area that is highly visible to drivers and provides a dedicated crosswalk for bicyclists. Additionally, the bike lanes along Shoreline Boulevard, between Middlefield Road and the US 101 Overcrossing, will be upgraded to a protected bike lane with a 2-foot buffer between the bike lanes and vehicular traffic. The North Bayshore Precise Plan also identifies a bicycle/pedestrian overcrossing along Shoreline Boulevard over US 101. The overcrossing would provide a safe connection for bicyclists between the project site and the North Bayshore area.

The project would provide secure bicycle storage for residents on the ground level of the affordable housing building. A locked access door located along Terra Bella Avenue would provide direct access to the bicycle storage room. Additionally, short-term bicycle parking spaces for guests would be located on the project frontage along Terra Bella Avenue. The public storage site would provide two short-term bike racks near the leasing office.

Bicycle Infrastructure, Safety, and User Experience

The 2015 Bicycle Transportation Plan Update evaluates the quality of the bicycle network in the City in terms of connectivity gaps and low stress gaps. The plan identifies spot gaps and quality gaps along Middlefield Road. Spot gaps refer to point-specific locations lacking dedicated bicycle facilities or other treatments to accommodate safe and comfortable bicycle travel; while quality gaps are links of an existing bikeway that are deficient or have operational shortcomings. The plan also identifies the low

stress bicycle network. Low stress segments include Class I separated paths and streets with low traffic volumes, low traffic speeds, and bike facilities such as a protected bike lane or a bike boulevard. These are facilities where people feel most comfortable biking because they typically have the least interaction with motor-vehicles. The planned bicycle improvements along Shoreline Boulevard would increase bicyclist comfort.

It is expected that residents of the affordable housing would generate some bicycle trips, which could utilize the existing bike lanes and proposed upgraded protected bike lanes along Shoreline Boulevard and Middlefield Road to get to Downtown Mountain View, the Mountain View Transit Center, and corporate campuses in the North Bayshore and Whisman areas. According to the 2015 Bicycle Transportation Plan Update, the proportion of Mountain View residents that bicycle to work is about 6.5 percent, which equates to 2-4 new bicycle trips during the AM and PM peak hours for the project.

Bicycle Level of Traffic Stress

The City's AccessMV report includes a bicycle level of traffic stress (BLTS) map (see Figure 21) to identify the perceived comfort and safety of existing roads and bikeway facilities from the perspective of cyclists, as indicated with a BLTS score ranging from 1 to 4. A higher BLTS score indicates that the bikeway is comfortable for a more confident adult. A BLTS score of 1 is comfortable for all ages and abilities, a BLTS score of 2 is comfortable for an average adult, while a BLTS score of 4 indicates that the streets are comfortable only for highly confident riders. The metric (ranging from 1 to 4) in the AccessMV document covers the following factors:

- Number of through lanes or street width
- Posted speed limit or prevailing vehicle speed
- Presence and type of bicycle facilities
- Presence of traffic signals

Based on the BLTS map, the following streets in the project vicinity have a BLTS greater than 2, which is undesirable:

- Shoreline Boulevard (BLTS 3)
- Middlefield Road (BLTS 3)
- Moffett Boulevard (BLTS 4)

The project would create an adverse effect on bicycle operations because the project would add vehicle trips to Shoreline Boulevard, Middlefield Road, and Moffett Boulevard, which have a BLTS score of 3 or more. The 2015 Bicycle Transportation Plan proposes Class IV cycle tracks along Shoreline Boulevard and Moffett Boulevard and a Class II full time bike lane along Middlefield Road. The Shoreline Boulevard Bus Lane and Utility Improvements would upgrade the bicycle facilities along Shoreline Boulevard, between US 101 and Montecito Avenue with protected bike lanes. The planned improvements by the City of Mountain View would increase bicyclist comfort and safety while improving the Bicycle Level of Traffic Stress and are consistent with the guidelines described in the City's Comprehensive Modal Plan.

The AccessMV report also includes a BLTS map considering the planned bicycle facilities listed in the Caltrans District 4 Bike Plan (2018), the VTA Countywide Bicycle Plan (2018), the City of Mountain View Bicycle Transportation Plan (2015), the Caltrain Bicycle Access and Parking Plan (2008), and several area precise plans. With the planned improvements identified in these documents, Middlefield Road is expected to continue to have a BLTS score of 3. All other streets in the project area would have a BLTS score of 2 or lower.



Pedestrian and Bicycle Access to Schools

The project site is located within the boundary of Theuerkauf Elementary School, Crittenden Middle School, and Mountain View High School, which are about 0.8 mile southwest, 0.6 mile west, and 4.3 miles south of the project site, respectively. Some elementary and middle school students may wish to walk or bike to school. Walking and Biking Suggested Routes to School Maps for these schools can be found in Appendix F. Pedestrians and bicyclists could walk or bike from the project site to the elementary school via Shoreline Boulevard and Montecito Avenue. Pedestrians could walk from the project site to the middle school via Terra Bella Avenue. Bicyclists from the project site could utilize bike lanes along Shoreline Boulevard and Middlefield Road to reach the middle school.

Transit Assessment

Transit Facilities, Service, and Access

The project site is served by VTA Route 40 and MvGo Shuttle B with bus stops located along Shoreline Boulevard, approximately $\frac{1}{4}$ -mile west of the project site.

As part of the Shoreline Boulevard Bus Lane and Utility Improvements, sidewalks and curb ramps at the Shoreline Boulevard/Terra Bella Avenue intersection will be reconstructed, and four new bus stops will be constructed at the intersection servicing the dedicated bus lane. Transit operations at the Shoreline Boulevard/Terra Bella Avenue stops will be improved in the peak hour direction since buses will utilize the dedicated bus lane and bus stops.

Transit Operations

It is expected that the residents of the affordable housing would generate some transit trips to get to the North Bayshore area, the downtown area, or to other destinations. According to the 2015 Bicycle Transportation Plan Update, approximately 5.1 percent of Mountain View residents use public transit to get to work. Applying the 5.1 percent transit mode share equates to 2-3 new transit riders during the AM and PM peak hours. This new ridership generated by the project could be accommodated by existing services.

Due to the small number of new vehicle trips generated by the project, the project would result in a minimal increase in vehicle delay at the study intersections and would not cause a noticeable change in transit travel time and vehicle delay for the bus routes in the study area. The completion of the Shoreline Boulevard Bus Lane and Utility Improvement project will decrease travel time and delay for transit in the peak direction.

Transportation Demand Management

The project would implement a Transportation Demand Management (TDM) program that is estimated to reduce vehicle trips generated by the project by 15%. The project also proposes multi-modal infrastructure improvements that could encourage the use of alternative transportation and reduce vehicle trips. These improvements include restriping crosswalks, installing a raised intersection, and installing accessible bicycle storage from the project's frontage along Terra Bella Avenue. The proposed TDM measures and design features would encourage use of alternative transportation modes (walking, bicycle, and transit) and reduce the likelihood of vehicle ownership. A TDM plan was prepared in September 2022 by Nelson\Nygaard Consulting Associates. The following design features and TDM measures would be implemented as part of the TDM plan:

- Transportation Management Association (TMA) Membership
- On-Site Carshare

- Bicycle Parking
- Collaborative Workspace
- Pedestrian-Oriented Site Design
- Delivery-Supported Amenities (Front Desk, Food Delivery Drop-Off Area, etc)
- Family TDM Amenities (Ground Level Storage for strollers, carts, etc.)
- Shared Bicycles and Resource Center
- Bike Repair and Wash Station
- Bike Training and Workshops
- TDM Coordinator and Mobility Concierge
- Informational/Promotional Materials
- Pre-Tax Transportation Benefits

5. Conclusions

The transportation analysis of the project was evaluated following the standards and methodologies set forth by the City of Mountain View, the Santa Clara Valley Transportation Authority (VTA) Congestion Management Program's *Transportation Impact Guidelines* (October 2014), and by the California Environmental Quality Act (CEQA).

CEQA VMT Analysis

Evaluation of Screening Criteria

The project consists of 108 units of affordable housing and a 408,964 s.f. Public Storage facility. Since 100% of the residential units would be affordable, the residential portion of the project is presumed to result in a less-than-significant transportation impact, and a detailed VMT analysis is not required.

Project Level VMT Analysis

There are currently 13 similar personal storage facilities in Mountain View and Sunnyvale. The average distance of these facilities from the mid-point of Mountain View (assumed to be City Hall) is 2.1 miles. The distance between the project site and the mid-point of Mountain View is 1.4 miles. Therefore, the project would reduce the average trip length for residents to access public storage facilities, and its impact to VMT would be less-than-significant.

Multimodal Transportation Analysis

Trip Generation

After applying the ITE trip rates and trip credits from existing uses, it is estimated that the project would generate 996 daily vehicle trips, with 68 trips (29 inbound and 39 outbound) occurring during the AM peak hour and 98 trips (52 inbound and 46 outbound) occurring during the PM peak hour.

Intersection Operations

The operations analysis shows that most of the study intersections are projected to operate at acceptable levels of service, under background conditions and background plus project conditions during both the AM and PM peak hours. The intersection of Shoreline Boulevard & US 101 Northbound Off-Ramp/La Avenida Street currently operates at LOS F during both peak hours under background

conditions, with and without the project. Since the project would not cause the critical movement delay to increase by 4 or more seconds, the project would not have an adverse effect at the intersection.

The intersection of Linda Vista Avenue & Middlefield Road operates at LOS E during the AM peak hour, with and without the project under background conditions, and would degrade from LOS D to LOS E during the PM peak hour. Under background conditions, the intersection would operate at a substandard level of service during the AM peak hour. Since the addition of project generated trips would not cause the critical delay to increase by 4 or more seconds, the project would not have an adverse effect at the intersection during the AM peak hour. The addition of project generated trips would degrade the operating level of service from LOS D to LOS E during the PM peak hour. The project proposes to implement a Transportation Demand Management (TDM) plan for the affordable housing portion of the project. Based on the calculations described in the TDM plan, the implementation of a TDM program is estimated to reduce vehicle trips generated by the project by 15%. The multi-modal improvements proposed by the project would also encourage future residents to walk, bike, or use transit instead of driving. With the implementation of a TDM plan, the PM peak hour would no longer degrade to LOS E and would not have an adverse effect on traffic operations at this intersection.

Intersection Queuing Analysis

Shoreline Boulevard & Terra Bella Avenue

The existing southbound left-turn storage length is approximately 150 feet. As part of the mitigation measures for a previously approved project, the left-turn storage pocket will be extended to 350 feet under background conditions. Under all scenarios, the Shoreline Boulevard & Terra Bella Avenue intersection was calculated to have insufficient storage for the southbound left-turn movement during the AM peak hour. The project would add 12 vehicles during the AM peak hour to the southbound left-turn movement. This equates to at most one vehicle during the heaviest cycles and would cause an adverse effect at the intersection. Based on the calculations described in the TDM plan, the implementation of a TDM program is estimated to reduce vehicle trips generated by the project by 15%. With this reduction, the project is estimated to add 10 vehicles during the AM peak hour to the southbound left-turn movement and would not extend the 95th percentile AM peak hour queue under background conditions.

Site Access and On-Site Circulation

Site access was evaluated to determine the adequacy of the site's access points with regard to the following: traffic volume, delays, vehicle queues, geometric design, and corner sight distance. On-site vehicular circulation was reviewed in accordance with generally accepted traffic engineering standards and transportation planning principles.

Recommended Site Access and On-Site Circulation Improvements

Affordable Housing Site

- Approximately 25 feet of red curb should be painted on both sides of project driveways
- Parking spaces should be assigned because the garage has dead-ends with no place to turn around.
- Trash bins would need to be wheeled out to the trash pick-up area on trash pick-up days

Public Storage Site

- Red curb should be painted in the cul-de-sac on Linda Vista Avenue.
- Red curb should be painted along the project frontage at the San Rafael cul-de-sac

Parking Supply

Vehicle Parking

Parking occupancy counts were conducted at similar affordable housing developments, which yielded an average parking demand of 1.36 spaces per unit. The project would provide 10 units for individuals that are developmentally disabled and 27 units for rapid housing. The applicant has provided information based on similar projects, stating the parking ratios provided for these uses are .85 spaces per unit for the individuals that are developmentally disabled and .6 spaces per unit for rapid housing. These ratios have been observed at similar developments from Alta Housing. The remaining 71 units would require 1.36 parking spaces per unit, as found in the parking occupancy count study.

Based on the parking ratios provided by the applicant and the observed parking demand at similar affordable housing developments in the region, the affordable housing component of the project would be required to provide 123 parking spaces. The project proposes to implement a TDM program to reduce the parking demand generated by the project. Based on the TDM strategies that would reduce vehicle ownership rates, the TDM program is conservatively estimated to reduce parking demand by 15% with the possibility to reduce parking demand by up to 40%. Therefore, the affordable housing component of the project should provide a minimum of 74 parking spaces.

Parking counts also were conducted at similar storage facilities. These yielded an average parking demand of 0.07 space per 1,000 square feet. Based on the observed parking demand at similar Public Storage facilities in the region, the proposed project should provide 29 parking spaces for the Public Storage site.

The project proposes to provide 96 parking spaces within the two-level parking garage for the affordable housing site and 66 surface parking spaces within the Public Storage site. The affordable housing site would provide 27 fewer spaces than the recommended number of parking spaces based on the parking ratios provided by the applicant and the observed parking demand at similar affordable housing developments in the region. The project proposes to implement a TDM program that would conservatively reduce parking demand by 15% and up to 40%. With the implementation of the TDM program, the proposed 96 parking spaces for the affordable housing site is adequate. The Public Storage site would provide 37 more parking spaces than the demand observed at other Public Storage facilities.

Bicycle Parking

The affordable housing site would provide a total of 108 bicycle spaces for residents and 12 short-term bicycle parking spaces. The proposed number of bicycle parking spaces meets the requirements specified in the City of Mountain View municipal code.

Pedestrian, Bicycle, and Transit Analysis

The project proposes to upgrade the San Rafael Avenue/Terra Bella Avenue intersection with a raised intersection and install “ladder” style crosswalks along all approaches. The project also proposes to construct a new curb ramp to serve the existing crosswalk near the cul-de-sac along Linda Vista Avenue. The crosswalk will be restriped to be a high-visibility “ladder” style crosswalk.

The project would generate a small number of pedestrian trips between the project site and pedestrian generators along Shoreline Boulevard. With the anticipated improvements related to the Shoreline Boulevard Bus Lane and Utility Improvement project, pedestrians would have a safe and continuous connection between the project site and Shoreline Boulevard.

The project would have an adverse effect on pedestrian operations because the project is expected to add vehicle trips to San Rafael Avenue, Linda Vista Avenue, Terra Bella Avenue, Middlefield Road, and

Shoreline Boulevard, which have a PQOS score of 3 or more. As described above, it is assumed that the Shoreline Boulevard Bus Lane and Utility Improvements would upgrade existing pedestrian facilities along Shoreline Boulevard and at the intersection of Shoreline Boulevard/Terra Bella Avenue. Additionally, the project would install several improvement features within the project vicinity, including a raised intersection, upgraded curb ramps, and restriped crosswalks to high-visibility crosswalks. The planned improvements by the City of Mountain View and the proposed improvements from the project would increase pedestrian comfort and safety while improving the pedestrian quality of service and is consistent with the guidelines described in the City's Comprehensive Modal Plan.

Based on the 2015 Bicycle Transportation Plan Update, the project is expected to generate between 2-4 new bicycle trips during the AM and PM peak hours. The project would provide secure bicycle storage for residents on the ground level of the affordable housing building. Guest bicycle parking would be located along the frontages of the affordable housing building.

The project would create an adverse effect on bicycle operations because the project would add vehicle trips to Shoreline Boulevard, Middlefield Road, and Moffett Boulevard, which have a BLTS score of 3 or more. The 2015 Bicycle Transportation Plan proposes Class IV cycle tracks along Shoreline Boulevard and Moffett Boulevard and a Class II full time bike lane along Middlefield Road. The Shoreline Boulevard Bus Lane and Utility Improvements would upgrade the bicycle facilities along Shoreline Boulevard between US 101 and Montecito Avenue with protected bike lanes. The planned improvements by the City of Mountain View would increase bicyclist comfort and safety while improving the Bicycle Level of Traffic Stress and is consistent with the guidelines described in the City's Comprehensive Modal Plan.

The project is expected to generate between 2-3 new transit riders during the AM and PM peak hours. This new ridership generated by the project could be accommodated by existing services. Due to the small number of new vehicle trips generated by the project, the project would result in a minimal increase in vehicle delay at the study intersections and would not cause a noticeable change in transit travel time and vehicle delay for the bus routes in the study area. The completion of the Shoreline Boulevard Bus Lane and Utility Improvement project would decrease travel time and delay for transit in the peak direction.

Transportation Demand Management

The following design features and TDM measures would be implemented by the project as part of the TDM plan:

- Transportation Management Association (TMA) Membership
- On-Site Carshare
- Bicycle Parking
- Collaborative Workspace
- Pedestrian-Oriented Site Design
- Delivery-Supported Amenities (Front Desk, Food Delivery Drop-Off Area, etc)
- Family TDM Amenities (Ground Level Storage for strollers, carts, etc.)
- Shared Bicycles and Resource Center
- Bike Repair and Wash Station
- Bike Training and Workshops
- TDM Coordinator and Mobility Concierge
- Informational/Promotional Materials
- Pre-Tax Transportation Benefits

**1020-1040 Terra Bella Avenue
Transportation Analysis
Technical Appendices**

Appendix A

Turning Movement Counts



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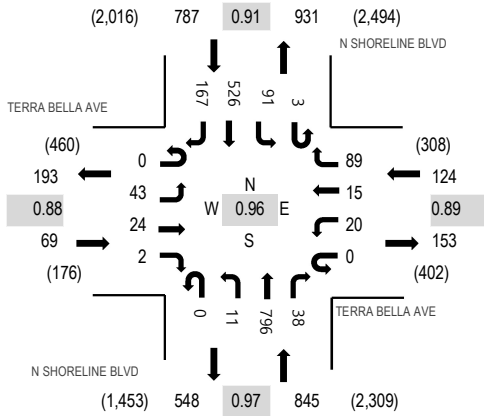
Location: 1 N SHORELINE BLVD & TERRA BELLA AVE AM

Date: Wednesday, June 1, 2022

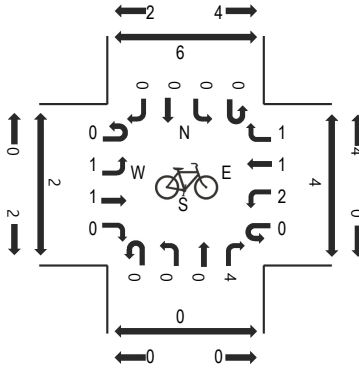
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:15 AM - 08:30 AM

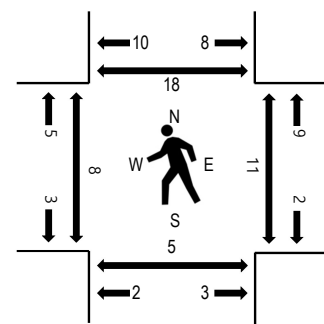
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	TERRA BELLA AVE				TERRA BELLA AVE				N SHORELINE BLVD				N SHORELINE BLVD				Total	Rolling Hour	Pedestrian Crossings				
	Eastbound				Westbound				Northbound				Southbound						West	East	South	North	
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right							
7:00 AM	0	3	2	1	0	4	2	13	0	4	91	5	1	12	81	25	244	1,268	0	0	0	0	
7:15 AM	0	3	1	0	0	3	1	16	0	1	117	5	0	14	91	14	266	1,485	2	2	1	1	
7:30 AM	0	4	1	2	0	4	0	14	0	0	134	8	1	16	109	15	308	1,692	0	3	1	1	
7:45 AM	0	9	6	1	0	6	2	20	0	2	180	8	0	15	155	46	450	1,825	2	1	0	1	
8:00 AM	0	9	5	0	0	7	5	23	0	2	194	8	0	24	141	43	461	1,822	2	1	1	11	
8:15 AM	0	15	8	0	0	4	5	23	0	2	220	8	0	21	121	46	473	1,799	1	4	3	4	
8:30 AM	0	10	5	1	0	3	3	23	0	5	202	14	3	31	109	32	441	1,747	3	5	1	2	
8:45 AM	0	8	5	3	0	5	2	18	0	9	219	7	2	21	115	33	447	1,790	2	1	0	2	
9:00 AM	0	12	4	2	0	5	3	13	0	3	227	9	2	16	106	36	438	1,719	1	3	4	0	
9:15 AM	0	7	4	5	0	6	2	17	0	4	187	12	1	19	119	38	421		1	2	2	1	
9:30 AM	0	11	3	5	0	7	4	22	0	5	220	14	1	35	124	33	484		1	3	0	0	
9:45 AM	1	13	4	3	0	8	3	12	0	4	171	8	3	24	97	25	376		0	1	0	2	

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	6
Lights	0	42	24	2	0	20	14	89	0	11	786	38	3	91	516	167	1,803
Mediums	0	1	0	0	0	0	1	0	0	0	5	0	0	0	9	0	16
Total	0	43	24	2	0	20	15	89	0	11	796	38	3	91	526	167	1,825



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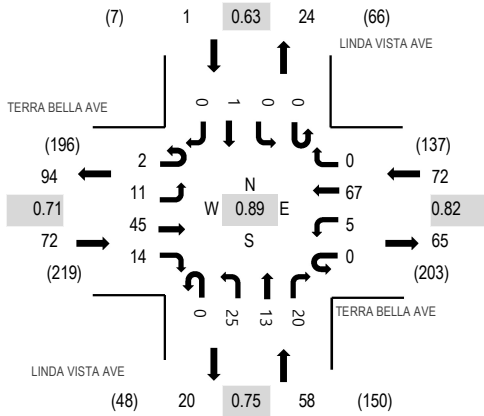
Location: 2 LINDA VISTA AVE & TERRA BELLA AVE AM

Date: Wednesday, June 1, 2022

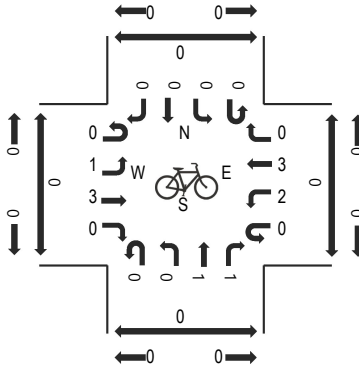
Peak Hour: 07:30 AM - 08:30 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

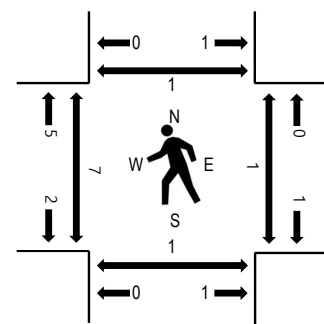
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	TERRA BELLA AVE Eastbound				TERRA BELLA AVE Westbound				LINDA VISTA AVE Northbound				LINDA VISTA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	2	4	4	5	0	0	4	0	0	5	2	4	0	0	0	0	30	162	0	0	0	1
7:15 AM	0	0	10	3	0	2	12	0	0	4	2	1	0	0	1	0	35	189	0	0	1	0
7:30 AM	1	3	14	3	0	3	13	0	0	3	3	4	0	0	0	0	47	203	0	0	0	0
7:45 AM	1	5	8	2	0	1	14	0	0	10	4	4	0	0	1	0	50	199	1	0	1	0
8:00 AM	0	2	12	4	0	0	22	0	0	7	2	8	0	0	0	0	57	166	2	1	0	1
8:15 AM	0	1	11	5	0	1	18	0	0	5	4	4	0	0	0	0	49	151	4	0	0	0
8:30 AM	0	3	17	3	0	1	13	1	0	0	5	0	0	0	0	0	43	155	4	0	0	0
8:45 AM	0	2	6	0	0	0	6	0	0	0	3	0	0	0	0	0	17	170	1	0	2	0
9:00 AM	0	0	12	2	0	0	4	0	0	10	2	10	0	0	1	1	42	185	2	0	1	0
9:15 AM	0	2	16	4	0	2	12	0	0	6	1	9	0	0	0	1	53		5	0	0	0
9:30 AM	0	8	22	1	0	0	8	0	0	10	3	4	0	0	0	2	58		6	0	2	0
9:45 AM	0	2	16	3	0	0	0	0	0	2	2	7	0	0	0	0	32		2	1	2	5

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Lights	2	11	45	14	0	5	66	0	0	25	13	19	0	0	1	0	201
Mediums	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1
Total	2	11	45	14	0	5	67	0	0	25	13	20	0	0	1	0	203



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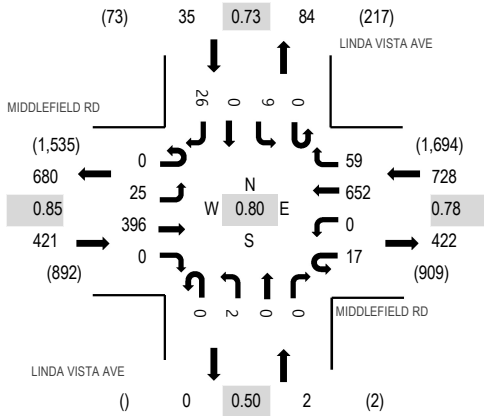
Location: 3 LINDA VISTA AVE & MIDDLEFIELD RD AM

Date: Wednesday, June 1, 2022

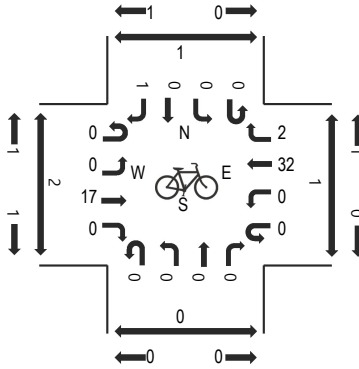
Peak Hour: 07:45 AM - 08:45 AM

Peak 15-Minutes: 08:00 AM - 08:15 AM

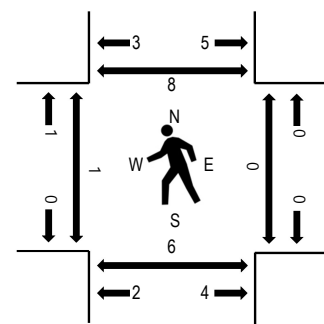
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	MIDDLEFIELD RD Eastbound				MIDDLEFIELD RD Westbound				LINDA VISTA AVE Northbound				LINDA VISTA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
7:00 AM	0	2	33	0	3	0	61	10	0	0	0	0	0	3	0	3	115	671	0	0	0	1
7:15 AM	0	2	30	0	1	0	77	6	0	0	0	0	0	1	0	3	120	928	1	0	1	1
7:30 AM	0	2	49	0	6	0	80	13	0	0	0	0	0	2	0	1	153	1,109	0	0	2	3
7:45 AM	0	4	79	0	3	0	168	16	0	1	0	0	0	2	0	10	283	1,186	0	0	2	3
8:00 AM	0	6	122	0	5	0	218	11	0	1	0	0	0	3	0	6	372	1,152	1	0	3	1
8:15 AM	0	7	121	0	6	0	144	14	0	0	0	0	0	4	0	5	301	991	0	0	1	3
8:30 AM	0	8	74	0	3	0	122	18	0	0	0	0	0	0	0	5	230	913	0	0	0	1
8:45 AM	0	8	88	0	6	0	128	16	0	0	0	0	0	1	0	2	249	885	0	0	0	2
9:00 AM	0	3	62	0	4	0	116	23	0	0	0	0	0	0	0	3	211	838	0	0	0	6
9:15 AM	0	1	71	0	3	0	125	14	0	0	0	0	0	5	0	4	223		0	0	1	4
9:30 AM	0	4	58	0	3	0	117	13	0	0	0	0	0	2	0	5	202		0	0	0	0
9:45 AM	0	6	52	0	4	0	127	10	0	0	0	0	0	0	0	3	202		0	0	0	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Lights	0	24	394	0	17	0	650	58	0	2	0	0	0	9	0	26	1,180
Mediums	0	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	5
Total	0	25	396	0	17	0	652	59	0	2	0	0	0	9	0	26	1,186

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	2	0	0	0	0	0	1	1	0	4
Lights	0	154	9	44	0	33	10	132	0	7	598	20	6	42	858	26	1,939
Mediums	0	0	0	0	0	0	0	2	0	0	6	1	0	0	3	0	12
Total	0	154	9	44	0	33	10	136	0	7	604	21	6	43	862	26	1,955



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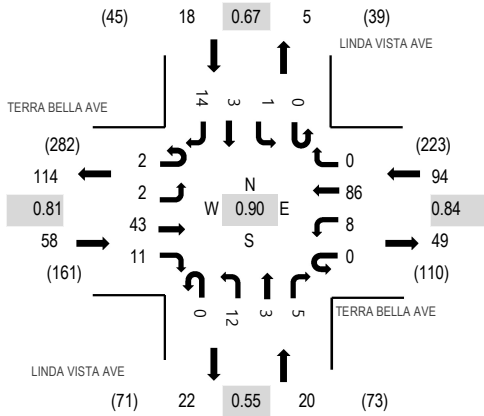
Location: 2 LINDA VISTA AVE & TERRA BELLA AVE PM

Date: Wednesday, June 1, 2022

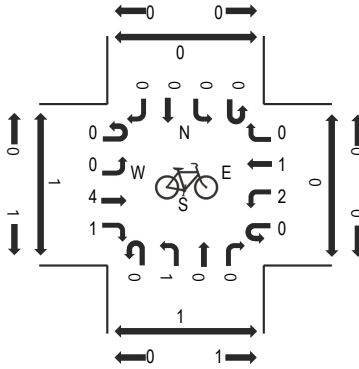
Peak Hour: 05:00 PM - 06:00 PM

Peak 15-Minutes: 05:30 PM - 05:45 PM

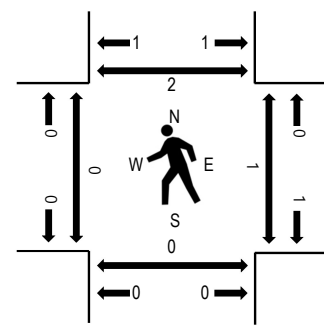
Peak Hour - Motorized Vehicles



Peak Hour - Bicycles



Peak Hour - Pedestrians



Note: Total study counts contained in parentheses.

Traffic Counts - Motorized Vehicles

Interval Start Time	TERRA BELLA AVE Eastbound				TERRA BELLA AVE Westbound				LINDA VISTA AVE Northbound				LINDA VISTA AVE Southbound				Total	Rolling Hour	Pedestrian Crossings			
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right			West	East	South	North
4:00 PM	0	1	8	6	0	1	26	0	0	5	2	0	0	1	0	1	51	151	0	0	4	0
4:15 PM	0	2	5	2	0	0	13	0	0	2	3	1	0	0	0	0	28	151	0	0	0	0
4:30 PM	0	2	7	6	0	0	6	1	0	5	0	1	0	0	3	2	33	166	0	1	2	2
4:45 PM	0	1	6	5	0	0	18	0	0	4	0	3	0	0	0	2	39	186	0	0	0	0
5:00 PM	0	1	13	4	0	1	25	0	0	2	1	2	0	0	0	2	51	190	0	0	0	1
5:15 PM	2	0	8	1	0	3	17	0	0	2	0	1	0	0	1	8	43	178	0	1	0	0
5:30 PM	0	1	13	1	0	2	26	0	0	3	1	2	0	0	1	3	53	182	0	0	0	1
5:45 PM	0	0	9	5	0	2	18	0	0	5	1	0	0	1	1	1	43	161	0	0	0	0
6:00 PM	0	1	6	2	0	1	16	0	0	1	1	3	0	0	2	6	39	161	0	0	0	0
6:15 PM	0	4	4	3	0	4	16	0	0	4	8	2	0	0	0	2	47		0	0	0	0
6:30 PM	0	5	3	4	0	1	12	0	0	0	1	0	0	0	0	6	32		0	1	0	0
6:45 PM	0	2	10	8	0	0	14	0	0	6	0	1	0	0	1	1	43		0	0	1	0

Peak Rolling Hour Flow Rates

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	2
Lights	2	2	43	10	0	8	85	0	0	12	3	5	0	1	3	13	187
Mediums	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	2	2	43	11	0	8	86	0	0	12	3	5	0	1	3	14	190

Vehicle Type	Eastbound				Westbound				Northbound				Southbound				Total
	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	U-Turn	Left	Thru	Right	
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lights	1	27	631	0	23	0	370	16	0	0	0	2	0	22	0	18	1,110
Mediums	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
Total	1	27	631	0	23	0	372	16	0	0	0	2	0	22	0	18	1,112

Appendix B

City of Mountain View Approved Project List

Mountain View Background Projects

Sr. No.	Address	Applicant	Project Description	Status
1	1255 Pear Avenue	The Sobrato Organization	231,210 s.f. office and 635 multi-family residential	Approved
2	1100 La Avenida Street	Eden Housing	100 affordable units	Approved
3	555 W Middlefield Road	Avalon Bay Communities	323 unit residential apartment	Approved
4	2000 N Shoreline Boulevard (Charleston East)	Google Inc.	595,000 s.f. office	Under Construction
5	1001 N Shoreline Boulevard	Sares Regis Group of Northern California	203 unit residential apartment, 100 unit condominium building, and six-level parkin structure	Under Construction
6	777 W Middlefield Road	Fortbay	716 unit residential apartment (including 144 affordable)	Under Construction
7	1860-2159 Landings Drive, 1014-1058 Huff Avenue, 900 Alta Avenue, 2000 N Shoreline Boulevard (Google Landings)	Google Inc.	800,000 s.f. office	Under Construction
8	2600 Marine Way (Intuit)	Intuit	364,000 s.f. office	Under Construction
9	Hope Street Lots (City Lots 4 and 8)	Robert Green Company	120,000 s.f. hotel with ground floor commercial and 52,000 s.f. mixed use building	Approved

Appendix C

Tabulated Traffic Volumes

Intersection Number:	3												
Traffic Node Number:	3												
Intersection Name:	Shoreline Blvd & Terra Bella Avenue												
Peak Hour:	AM												
Count Date:	09/25/18												
Date of Analysis: 08/05/22													
Movements													
Scenario:	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions ¹	188	576	232	155	20	26	27	1389	4	6	15	62	2700
Approved Project Trips													
1255 Pear Avenue	0	19	0	0	0	0	0	23	0	0	0	0	42
1100 La Avenida Street	0	4	0	0	0	0	0	1	0	0	0	0	5
555 W Middlefield Road	0	2	0	0	0	0	0	5	0	0	0	0	7
Charleston East	0	3	0	0	0	0	0	23	0	0	0	0	26
1001 N Shoreline Boulevard	0	-15	37	86	4	90	82	-28	0	0	3	0	259
777 W Middlefield Road	0	19	0	0	0	0	0	38	1	0	0	0	58
1555 W Middlefield Road	0	3	0	0	0	0	0	7	0	0	0	0	10
Google Landings	0	2	0	0	0	0	0	27	0	0	0	0	29
2600 Marine Way	0	2	0	0	0	0	0	16	0	0	0	0	18
Hope Street Lots (City Lots 4 and 8)	0	11	0	0	0	0	0	5	0	0	0	0	16
Total Approved Trips	0	50	37	86	4	90	82	117	1	0	3	0	42
Shoreline Bus Lane Improvement Project	0	0	0	-12	0	12	0	-12	12	5	0	-5	0
Background Conditions	188	626	269	229	24	128	109	1494	17	11	18	57	3170
Project Trips	0	0	12	20	0	6	4	0	0	0	0	0	42
Existing + Project	188	576	244	175	20	32	31	1389	4	6	15	62	2742
Background + Project	188	626	281	249	24	134	113	1494	17	11	18	57	3212
¹ Existing Volumes include a 1%/year growth rate from Count Date to Year 2022.													

Intersection Number:	4												
Traffic Node Number:	4												
Intersection Name:	Linda Vista Avenue & Terra Bella Avenue												
Peak Hour:	AM												
Count Date:	06/01/22												
Date of Analysis: 08/05/22													
Movements													
Scenario:	North Approach			East Approach			South Approach			West Approach			
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	Total
Existing Conditions ¹	0	1	0	0	99	7	30	19	37	21	67	19	300
Approved Project Trips													
1255 Pear Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
1100 La Avenida Street	0	0	0	0	0	0	0	0	0	0	0	0	0
555 W Middlefield Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Charleston East	0	0	0	0	0	0	0	0	0	0	0	0	0
1001 N Shoreline Boulevard	0	0	0	0	0	0	0	0	0	0	0	0	0
777 W Middlefield Road	0	0	0	0	0	0	0	0	0	0	0	0	0
1555 W Middlefield Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Google Landings	0	0	0	0	0	0	0	0	0	0	0	0	0
2600 Marine Way	0	0	0	0	0	0	0	0	0	0	0	0	0
Hope Street Lots (City Lots 4 and 8)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Shoreline Bus Lane Improvement Project	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	0	1	0	0	99	7	30	19	37	21	67	19	300
Project Trips	3	3	0	0	23	11	8	5	0	0	12	5	70
Existing + Project	3	4	0	0	122	18	38	24	37	21	79	24	370
Background + Project	3	4	0	0	122	18	38	24	37	21	79	24	370
¹ Existing Volumes include a 1%/year growth rate from Count Date to Year 2022.													

¹ Existing Volumes include a 1%/year growth rate from Count Date to Year 2022.

Intersection Number: 4
 Traffic Node Number: 4
 Intersection Name: Linda Vista Avenue & Terra Bella Avenue
 Peak Hour: AM
 Count Date: 06/01/22
 Date of Analysis: 08/05/22

Movements												
Scenario:	North Approach			East Approach			South Approach			West Approach		
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT
Existing Conditions ¹	0	1	0	0	99	7	30	19	37	21	67	19
Total												
Approved Project Trips												
1255 Pear Avenue	0	0	0	0	0	0	0	0	0	0	0	0
1100 La Avenida Street	0	0	0	0	0	0	0	0	0	0	0	0
555 W Middlefield Road	0	0	0	0	0	0	0	0	0	0	0	0
Charleston East	0	0	0	0	0	0	0	0	0	0	0	0
1001 N Shoreline Boulevard	0	0	0	0	0	0	0	0	0	0	0	0
777 W Middlefield Road	0	0	0	0	0	0	0	0	0	0	0	0
1555 W Middlefield Road	0	0	0	0	0	0	0	0	0	0	0	0
Google Landings	0	0	0	0	0	0	0	0	0	0	0	0
2600 Marine Way	0	0	0	0	0	0	0	0	0	0	0	0
Hope Street Lots (City Lots 4 and 8)	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0
Shoreline Bus Lane Improvement Project	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	0	1	0	0	99	7	30	19	37	21	67	19
Project Trips	3	3	0	0	23	11	8	5	0	0	12	5
Existing + Project	3	4	0	0	122	18	38	24	37	21	79	24
Background + Project	3	4	0	0	122	18	38	24	37	21	79	24
Total												
Existing Conditions ¹												

¹ Existing Volumes include a 1%/year growth rate from Count Date to Year 2022.

Intersection Number:	5												
Traffic Node Number:	5												
Intersection Name:	Linda Vista Avenue & Middlefield Road												
Peak Hour:	AM												
Count Date:	06/01/22												
Date of Analysis: 08/05/22													
Scenario:	Movements												
	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions ¹	38	0	13	87	965	25	0	0	3	0	586	37	1754
Approved Project Trips													
1255 Pear Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
1100 La Avenida Street	0	0	0	0	0	0	0	0	0	0	0	0	0
555 W Middlefield Road	0	0	0	0	11	0	0	0	0	0	5	0	16
Charleston East	0	0	0	0	7	0	0	0	0	0	1	0	8
1001 N Shoreline Boulevard	0	0	0	0	0	0	0	0	0	0	12	0	12
777 W Middlefield Road	0	0	0	0	5	0	0	0	0	0	12	0	17
1555 W Middlefield Road	0	0	0	0	2	0	0	0	0	0	5	0	7
Google Landings	0	0	0	0	5	0	0	0	0	0	0	0	5
2600 Marine Way	0	0	0	0	0	0	0	0	0	0	0	0	0
Hope Street Lots (City Lots 4 and 8)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	30	0	0	0	0	0	35	0	0
Shoreline Bus Lane Improvement Project	0	0	0	0	0	0	0	0	0	0	62	0	62
Background Conditions	38	0	13	87	995	25	0	0	3	0	683	37	1881
Project Trips	5	0	9	8	0	0	0	0	0	0	0	5	27
Existing + Project	43	0	22	95	965	25	0	0	3	0	586	42	1781
Background + Project	43	0	22	95	995	25	0	0	3	0	683	42	1908
¹ Existing Volumes include a 1%/year growth rate from Count Date to Year 2022.													

Intersection Number:	3												
Traffic Node Number:	3												
Intersection Name:	Shoreline Blvd & Terra Bella Avenue												
Peak Hour:	PM												
Count Date:	09/25/18												
Date of Analysis: 08/05/22													
Movements													
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions ¹	53	1533	44	131	15	56	31	565	6	50	22	151	2657
Approved Project Trips													
1255 Pear Avenue	0	27	0	0	0	0	0	21	0	0	0	0	48
1100 La Avenida Street	0	2	0	0	0	0	0	4	0	0	0	0	6
555 W Middlefield Road	0	5	0	0	0	0	0	4	0	0	0	0	9
Charleston East	0	20	0	0	0	0	0	5	0	0	0	0	25
1001 N Shoreline Boulevard	0	-9	56	36	2	40	35	-5	0	0	2	0	157
777 W Middlefield Road	0	49	0	0	0	0	0	26	1	1	0	0	77
1555 W Middlefield Road	0	9	0	0	0	0	0	5	0	0	0	0	14
Google Landings	0	19	0	0	0	0	0	1	0	0	0	0	20
2600 Marine Way	0	14	0	0	0	0	0	3	0	0	0	0	17
Hope Street Lots (City Lots 4 and 8)	0	7	0	0	0	0	0	11	0	0	0	0	18
Total Approved Trips	0	143	56	36	2	40	35	75	1	1	2	0	48
Shoreline Bus Lane Improvement Project	0	0	0	-6	0	6	0	-47	47	13	0	-13	0
Background Conditions	53	1676	100	161	17	102	66	593	54	64	24	138	3048
Project Trips	0	0	24	20	0	9	7	0	0	0	0	0	60
Existing + Project	53	1533	68	151	15	65	38	565	6	50	22	151	2717
Background + Project	53	1676	124	181	17	111	73	593	54	64	24	138	3108
¹ Existing Volumes include a 1%/year growth rate from Count Date to Year 2022.													
Intersection Number: 4													
Traffic Node Number: 4													
Intersection Name: Linda Vista Avenue & Terra Bella Avenue													
Peak Hour: PM													
Count Date: 06/01/22													
Date of Analysis: 08/05/22													
Movements													
Scenario:	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions ¹	19	4	1	0	117	11	7	4	16	15	58	5	257
Approved Project Trips													
1255 Pear Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
1100 La Avenida Street	0	0	0	0	0	0	0	0	0	0	0	0	0
555 W Middlefield Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Charleston East	0	0	0	0	0	0	0	0	0	0	0	0	0
1001 N Shoreline Boulevard	0	0	0	0	0	0	0	0	0	0	0	0	0
777 W Middlefield Road	0	0	0	0	0	0	0	0	0	0	0	0	0
1555 W Middlefield Road	0	0	0	0	0	0	0	0	0	0	0	0	0
Google Landings	0	0	0	0	0	0	0	0	0	0	0	0	0
2600 Marine Way	0	0	0	0	0	0	0	0	0	0	0	0	0
Hope Street Lots (City Lots 4 and 8)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	0	0	0	0	0	0	0	0	0
Shoreline Bus Lane Improvement Project	0	0	0	0	0	0	0	0	0	0	0	0	0
Background Conditions	19	4	1	0	117	11	7	4	16	15	58	5	257
Project Trips	7	6	0	0	21	12	16	6	0	0	25	6	99
Existing + Project	26	10	1	0	138	23	23	10	16	15	83	11	356
Background + Project	26	10	1	0	138	23	23	10	16	15	83	11	356
¹ Existing Volumes include a 1%/year growth rate from Count Date to Year 2022.													

Intersection Number:	5												
Traffic Node Number:	5												
Intersection Name:	Linda Vista Avenue & Middlefield Road												
Peak Hour:	PM												
Count Date:	06/01/22												
Date of Analysis: 08/05/22													
Scenario:	Movements												
	North Approach			East Approach			South Approach			West Approach			Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
Existing Conditions ¹	24	0	30	22	506	31	3	0	0	0	858	38	1512
Approved Project Trips													
1255 Pear Avenue	0	0	0	0	0	0	0	0	0	0	0	0	0
1100 La Avenida Street	0	0	0	0	0	0	0	0	0	0	0	0	0
555 W Middlefield Road	0	0	0	0	8	0	0	0	0	0	15	0	23
Charleston East	0	0	0	0	1	0	0	0	0	0	6	0	7
1001 N Shoreline Boulevard	0	0	0	0	0	0	0	0	0	0	6	0	6
777 W Middlefield Road	0	0	0	0	12	0	0	0	0	0	30	0	42
1555 W Middlefield Road	0	0	0	0	6	0	0	0	0	0	4	0	10
Google Landings	0	0	0	0	0	0	0	0	0	0	4	0	4
2600 Marine Way	0	0	0	0	0	0	0	0	0	0	0	0	0
Hope Street Lots (City Lots 4 and 8)	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Approved Trips	0	0	0	0	27	0	0	0	0	0	65	0	0
Shoreline Bus Lane Improvement Project	0	0	0	0	0	0	0	0	0	0	134	0	134
Background Conditions	24	0	30	22	533	31	3	0	0	0	1057	38	1738
Project Trips	6	0	12	13	0	0	0	0	0	0	0	9	40
Existing + Project	30	0	42	35	506	31	3	0	0	0	858	47	1552
Background + Project	30	0	42	35	533	31	3	0	0	0	1057	47	1778
¹ Existing Volumes include a 1%/year growth rate from Count Date to Year 2022.													

Appendix D

Level of Service Calculations

Scenario Report

Scenario:	Existing AM
Command:	Default Command
Volume:	Existing AM
Geometry:	Existing AM
Impact Fee:	Default Impact Fee
Trip Generation:	No Trip Generation
Trip Distribution:	Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Shoreline Blvd & US 101 NB Ramp/La Avenida St

Cycle (sec): 160 Critical Vol./Cap.(X): 0.848

Loss Time (sec): 9 Average Delay (sec/veh): 42.6

Optimal Cycle: 93 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	0	0	0	0	2	1	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	1219	0	0	408	0	416	14	1327	114	47	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1219	0	0	408	0	416	14	1327	114	47	12
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1219	0	0	408	0	416	14	1327	114	47	12
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1219	0	0	408	0	416	14	1327	114	47	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1219	0	0	408	0	416	14	1327	114	47	12
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1219	0	0	408	0	416	14	1327	114	47	12

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.81	0.88	0.81	0.89	0.97	0.70
Lanes:	0.00	2.00	0.00	0.00	3.00	0.00	1.94	0.06	2.00	1.45	0.55	2.00
Final Sat.:	0	3800	0	0	5700	0	2975	100	3067	2450	1010	2677

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.32	0.00	0.00	0.07	0.00	0.14	0.14	0.43	0.05	0.05	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.38	0.00	0.00	0.38	0.00	0.51	0.51	0.51	0.05	0.05	0.05
Volume/Cap:	0.00	0.85	0.00	0.00	0.19	0.00	0.27	0.27	0.85	0.85	0.85	0.08
Uniform Del:	0.0	45.5	0.0	0.0	33.3	0.0	22.3	22.3	33.8	74.9	74.9	71.8
IncrcmntDel:	0.0	4.9	0.0	0.0	0.0	0.0	0.0	0.0	3.5	28.2	28.2	0.2
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	0.0	50.4	0.0	0.0	33.3	0.0	22.3	22.3	37.3	103.2	103	72.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	50.4	0.0	0.0	33.3	0.0	22.3	22.3	37.3	103.2	103	72.0
LOS by Move:	A	D	A	A	C	A	C	C	D	F	F	E
HCM2kAvgQ:	0	29	0	0	4	0	6	6	32	6	6	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Shoreline Blvd & US 101 SB Ramp

Cycle (sec): 150 Critical Vol./Cap.(X): 0.411

Loss Time (sec): 9 Average Delay (sec/veh): 22.3

Optimal Cycle: 30 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	1	1	0	2	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	29	1402	0	0	651	0	256	0	376	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	29	1402	0	0	651	0	256	0	376	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	29	1402	0	0	651	0	256	0	376	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	29	1402	0	0	651	0	256	0	376	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	29	1402	0	0	651	0	256	0	376	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	29	1402	0	0	651	0	256	0	376	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	1.00	0.92	0.92	1.00	0.92	0.79	1.00	0.70	0.92	1.00	0.92
Lanes:	1.00	3.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1663	5700	0	0	3800	0	2992	0	2677	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.02	0.25	0.00	0.00	0.17	0.00	0.09	0.00	0.14	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.06	0.60	0.00	0.00	0.54	0.00	0.34	0.00	0.34	0.00	0.00	0.00
Volume/Cap:	0.32	0.41	0.00	0.00	0.32	0.00	0.25	0.00	0.41	0.00	0.00	0.00
Uniform Del:	68.1	16.0	0.0	0.0	18.9	0.0	35.6	0.0	37.8	0.0	0.0	0.0
IncrcmntDel:	2.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.3	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	70.1	16.1	0.0	0.0	19.0	0.0	35.7	0.0	38.1	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.1	16.1	0.0	0.0	19.0	0.0	35.7	0.0	38.1	0.0	0.0	0.0
LOS by Move:	E	B	A	A	B	A	D	A	D	A	A	A
HCM2kAvgQ:	2	11	0	0	8	0	5	0	8	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Shoreline Blvd & Terra Bella Avenue

Cycle (sec): 150 Critical Vol./Cap.(X): 0.613

Loss Time (sec): 9 Average Delay (sec/veh): 20.9

Optimal Cycle: 44 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	4	1389	27	232	576	188	62	15	6	26	20	155
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	4	1389	27	232	576	188	62	15	6	26	20	155
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	1389	27	232	576	188	62	15	6	26	20	155
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	4	1389	27	232	576	188	62	15	6	26	20	155
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	4	1389	27	232	576	188	62	15	6	26	20	155
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	4	1389	27	232	576	188	62	15	6	26	20	155

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	1.00	0.92	0.88	0.96	0.89	0.64	0.70	0.78	0.73	0.79	0.78
Lanes:	1.00	1.96	0.04	1.00	1.48	0.52	0.82	0.18	1.00	0.59	0.41	1.00
Final Sat.:	1663	3710	72	1663	2702	882	1000	242	1488	809	622	1488

Capacity Analysis Module:

Vol/Sat:	0.00	0.37	0.37	0.14	0.21	0.21	0.06	0.06	0.00	0.03	0.03	0.10
Crit Moves:	****			****			****			****		
Green/Cycle:	0.01	0.61	0.61	0.23	0.83	0.83	0.10	0.10	0.11	0.10	0.10	0.33
Volume/Cap:	0.26	0.61	0.61	0.61	0.26	0.26	0.61	0.61	0.04	0.32	0.32	0.32
Uniform Del:	73.8	18.1	18.1	52.0	2.8	2.8	64.6	64.6	59.6	62.6	62.6	37.7
IncrementDel:	8.6	0.5	0.5	3.0	0.0	0.0	8.6	8.6	0.1	1.3	1.3	0.4
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	82.4	18.6	18.6	54.9	2.8	2.8	73.2	73.2	59.7	63.9	63.9	38.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	82.4	18.6	18.6	54.9	2.8	2.8	73.2	73.2	59.7	63.9	63.9	38.1
LOS by Move:	F	B	B	D	A	A	E	E	E	E	E	D
HCM2kAvgQ:	0	20	20	11	4	4	5	5	0	2	2	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

 Intersection #4 Linda Vista Avenue & Terra Bella Avenue

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: B[10.5]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T - R	L	-	T - R	L	-	T - R	L	-	T - R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1 0 0	0	0	1! 0 0	0	1	0 0 0

Volume Module:

Base Vol:	37	19	30	0	1	0	19	67	21	7	99	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	19	30	0	1	0	19	67	21	7	99	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	19	30	0	1	0	19	67	21	7	99	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	37	19	30	0	1	0	19	67	21	7	99	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	37	19	30	0	1	0	19	67	21	7	99	0

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	xxxxx	6.5	xxxxx	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	4.0	xxxxx	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	229	229	78	xxxx	239	xxxxx	99	xxxx	xxxxx	88	xxxx	xxxxx
Potent Cap.:	730	675	989	xxxx	666	xxxxx	1507	xxxx	xxxxx	1520	xxxx	xxxxx
Move Cap.:	720	663	989	xxxx	654	xxxxx	1507	xxxx	xxxxx	1520	xxxx	xxxxx
Volume/Cap:	0.05	0.03	0.03	xxxx	0.00	xxxx	0.01	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	0.0	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	10.5	xxxxx	7.4	xxxx	xxxxx	7.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	B	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	779	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*
ApproachDel:	10.2			10.5			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

 Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Linda Vista Avenue & Middlefield Road

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: D[34.3]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	1	0	0	0	1	0	1

Volume Module:

Base Vol:	3	0	0	13	0	38	37	586	0	25	965	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	0	0	13	0	38	37	586	0	25	965	87
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	0	0	13	0	38	37	586	0	25	965	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	0	13	0	38	37	586	0	25	965	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	0	0	13	0	38	37	586	0	25	965	87

Critical Gap Module:

Critical Gp:	7.5	xxxx	xxxxxx	7.5	6.5	6.9	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1193	xxxx	xxxxxx	1426	1719	526	1052	xxxx	xxxxxx	586	xxxx	xxxxxx
Potent Cap.:	145	xxxx	xxxxxx	98	91	502	669	xxxx	xxxxxx	999	xxxx	xxxxxx
Move Cap.:	126	xxxx	xxxxxx	92	83	502	669	xxxx	xxxxxx	999	xxxx	xxxxxx
Volume/Cap:	0.02	xxxx	xxxx	0.14	0.00	0.08	0.06	xxxx	xxxx	0.03	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	34.3	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	10.7	xxxx	xxxxxx	8.7	xxxx	xxxxxx
LOS by Move:	D	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	234	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	0.8	xxxxxx	0.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	24.6	xxxxxx	10.7	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	C	*	B	*	*	*	*	*
ApproachDel:	34.3				24.6		xxxxxx			xxxxxx		
ApproachLOS:	D				C		*			*		

Note: Queue reported is the number of cars per lane.

Scenario Report
Scenario: Existing PM

Command: Default Command
Volume: Existing PM
Geometry: Existing PM
Impact Fee: Default Impact Fee
Trip Generation: No Trip Generation
Trip Distribution: Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Shoreline Blvd & US 101 NB Ramp/La Avenida St

Cycle (sec): 140 Critical Vol./Cap.(X): 0.627

Loss Time (sec): 9 Average Delay (sec/veh): 29.5

Optimal Cycle: 45 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	0	0	2	0	0	0	2	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	300	0	0	2040	0	439	0	301	204	79	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	300	0	0	2040	0	439	0	301	204	79	7
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	300	0	0	2040	0	439	0	301	204	79	7
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	300	0	0	2040	0	439	0	301	204	79	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	300	0	0	2040	0	439	0	301	204	79	7
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	300	0	0	2040	0	439	0	301	204	79	7

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.79	1.00	0.70	0.89	0.97	0.78
Lanes:	0.00	2.00	0.00	0.00	3.00	0.00	2.00	0.00	2.00	1.47	0.53	1.00
Final Sat.:	0	3800	0	0	5700	0	2992	0	2677	2490	964	1488

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.08	0.00	0.00	0.36	0.00	0.15	0.00	0.11	0.08	0.08	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.57	0.00	0.00	0.57	0.00	0.23	0.00	0.23	0.13	0.13	0.13
Volume/Cap:	0.00	0.14	0.00	0.00	0.63	0.00	0.63	0.00	0.48	0.63	0.63	0.04
Uniform Del:	0.0	14.0	0.0	0.0	20.1	0.0	48.1	0.0	46.3	57.6	57.6	53.1
IncrcmntDel:	0.0	0.0	0.0	0.0	0.4	0.0	1.8	0.0	0.6	2.8	2.8	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	0.0	14.0	0.0	0.0	20.5	0.0	49.9	0.0	46.9	60.4	60.4	53.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	14.0	0.0	0.0	20.5	0.0	49.9	0.0	46.9	60.4	60.4	53.2
LOS by Move:	A	B	A	A	C	A	D	A	D	E	E	D
HCM2kAvgQ:	0	3	0	0	19	0	11	0	7	7	7	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Shoreline Blvd & US 101 SB Ramp

Cycle (sec): 145 Critical Vol./Cap.(X): 0.565

Loss Time (sec): 9 Average Delay (sec/veh): 22.5

Optimal Cycle: 40 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	3	0	0	1	1	0	2	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	74	548	0	0	1307	0	82	0	378	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	74	548	0	0	1307	0	82	0	378	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	74	548	0	0	1307	0	82	0	378	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	74	548	0	0	1307	0	82	0	378	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	74	548	0	0	1307	0	82	0	378	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	74	548	0	0	1307	0	82	0	378	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	1.00	0.92	0.92	1.00	0.92	0.79	1.00	0.70	0.92	1.00	0.92
Lanes:	1.00	3.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	1663	5700	0	0	3800	0	2992	0	2677	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.04	0.10	0.00	0.00	0.34	0.00	0.03	0.00	0.14	0.00	0.00	0.00
Crit Moves:	****			****					****			
Green/Cycle:	0.08	0.69	0.00	0.00	0.61	0.00	0.25	0.00	0.25	0.00	0.00	0.00
Volume/Cap:	0.56	0.14	0.00	0.00	0.56	0.00	0.11	0.00	0.56	0.00	0.00	0.00
Uniform Del:	64.4	7.8	0.0	0.0	16.9	0.0	41.9	0.0	47.5	0.0	0.0	0.0
IncrcmntDel:	5.6	0.0	0.0	0.0	0.3	0.0	0.1	0.0	1.1	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	70.0	7.8	0.0	0.0	17.2	0.0	42.0	0.0	48.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	70.0	7.8	0.0	0.0	17.2	0.0	42.0	0.0	48.6	0.0	0.0	0.0
LOS by Move:	E	A	A	A	B	A	D	A	D	A	A	A
HCM2kAvgQ:	4	3	0	0	17	0	2	0	9	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Shoreline Blvd & Terra Bella Avenue

Cycle (sec): 125 Critical Vol./Cap.(X): 0.614

Loss Time (sec): 9 Average Delay (sec/veh): 16.9

Optimal Cycle: 43 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:

Base Vol:	6	565	31	44	1533	53	151	22	50	56	15	131
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	6	565	31	44	1533	53	151	22	50	56	15	131
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	6	565	31	44	1533	53	151	22	50	56	15	131
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	6	565	31	44	1533	53	151	22	50	56	15	131
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	565	31	44	1533	53	151	22	50	56	15	131
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	565	31	44	1533	53	151	22	50	56	15	131

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	0.99	0.91	0.88	1.00	0.92	0.62	0.67	0.78	0.58	0.63	0.78
Lanes:	1.00	1.89	0.11	1.00	1.93	0.07	0.88	0.12	1.00	0.80	0.20	1.00
Final Sat.:	1663	3558	195	1663	3644	126	1038	151	1488	886	237	1488

Capacity Analysis Module:

Vol/Sat:	0.00	0.16	0.16	0.03	0.42	0.42	0.15	0.15	0.03	0.06	0.06	0.09
Crit Moves:	****			****			****					
Green/Cycle:	0.01	0.59	0.59	0.10	0.69	0.69	0.24	0.24	0.24	0.24	0.24	0.34
Volume/Cap:	0.61	0.27	0.27	0.27	0.61	0.61	0.61	0.61	0.14	0.27	0.27	0.26
Uniform Del:	62.0	12.3	12.3	52.1	10.7	10.7	42.6	42.6	37.1	38.9	38.9	30.3
IncrcmntDel:	80.5	0.1	0.1	0.9	0.4	0.4	4.0	4.0	0.2	0.5	0.5	0.3
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	142.5	12.4	12.4	53.0	11.1	11.1	46.6	46.6	37.3	39.4	39.4	30.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	142.5	12.4	12.4	53.0	11.1	11.1	46.6	46.6	37.3	39.4	39.4	30.5
LOS by Move:	F	B	B	D	B	B	D	D	D	D	D	C
HCM2kAvgQ:	1	5	5	2	17	17	7	7	2	3	3	4

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Linda Vista Avenue & Terra Bella Avenue

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: A[9.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	1	0 0 0

Volume Module:

Base Vol:	16	4	7	1	4	19	5	58	15	11	117	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	4	7	1	4	19	5	58	15	11	117	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	4	7	1	4	19	5	58	15	11	117	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	4	7	1	4	19	5	58	15	11	117	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	4	7	1	4	19	5	58	15	11	117	0

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	226	215	66	220	222	117	117	xxxx	xxxxx	73	xxxx	xxxxx
Potent Cap.:	734	687	1004	740	680	941	1484	xxxx	xxxxx	1540	xxxx	xxxxx
Move Cap.:	710	679	1004	726	673	941	1484	xxxx	xxxxx	1540	xxxx	xxxxx
Volume/Cap:	0.02	0.01	0.01	0.00	0.01	0.02	0.00	xxxx	xxxxx	0.01	xxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	7.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	763	xxxxx	xxxx	872	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	9.9	xxxxx	xxxxx	9.2	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
Shared LOS:	*	A	*	*	A	*	*	*	*	A	*	*
ApproachDel:	9.9			9.2			xxxxxxx			xxxxxxx		
ApproachLOS:	A			A			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Linda Vista Avenue & Middlefield Road

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: C[23.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	0	0	3	30	0	24	38	858	0	31	506	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	3	30	0	24	38	858	0	31	506	22
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	3	30	0	24	38	858	0	31	506	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	3	30	0	24	38	858	0	31	506	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	3	30	0	24	38	858	0	31	506	22

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	429	1084	1513	264	528	xxxx	xxxxx	858	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	580	174	121	741	1049	xxxx	xxxxx	791	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	580	163	112	741	1049	xxxx	xxxxx	791	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.01	0.18	0.00	0.03	0.04	xxxx	xxxx	0.04	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	11.2	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx	9.7	xxxx	xxxxx
LOS by Move:	*	*	B	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	250	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.8	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	23.4	xxxxx	8.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	C	*	A	*	*	*	*	*
ApproachDel:	11.2			23.4			xxxxxx			xxxxxx		
ApproachLOS:	B			C			*			*		

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario:	Background AM
Command:	Default Command
Volume:	Background AM
Geometry:	Background AM
Impact Fee:	Default Impact Fee
Trip Generation:	No Trip Generation
Trip Distribution:	Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Shoreline Blvd & US 101 NB Ramp/La Avenida St

Cycle (sec): 160 Critical Vol./Cap.(X): 1.097

Loss Time (sec): 9 Average Delay (sec/veh): 85.7

Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	0	0	0	0	2	1	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	1410	0	0	551	0	433	14	1831	151	71	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1410	0	0	551	0	433	14	1831	151	71	12
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1410	0	0	551	0	433	14	1831	151	71	12
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1410	0	0	551	0	433	14	1831	151	71	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1410	0	0	551	0	433	14	1831	151	71	12
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1410	0	0	551	0	433	14	1831	151	71	12

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.80	0.87	0.80	0.89	0.97	0.78
Lanes:	0.00	2.00	0.00	0.00	3.00	0.00	1.94	0.06	2.00	1.40	0.60	1.00
Final Sat.:	0	3800	0	0	5700	0	2961	96	3049	2362	1110	1488

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.37	0.00	0.00	0.10	0.00	0.15	0.15	0.60	0.06	0.06	0.01
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.34	0.00	0.00	0.34	0.00	0.55	0.55	0.55	0.06	0.06	0.06
Volume/Cap:	0.00	1.10	0.00	0.00	0.29	0.00	0.27	0.27	1.10	1.10	1.10	0.14
Uniform Del:	0.0	52.9	0.0	0.0	38.8	0.0	19.2	19.2	36.2	75.3	75.3	71.5
IncramntDel:	0.0	56.1	0.0	0.0	0.1	0.0	0.0	0.0	52.0	91.7	91.7	0.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	0.0	109	0.0	0.0	38.9	0.0	19.2	19.2	88.2	167.0	167	72.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	109	0.0	0.0	38.9	0.0	19.2	19.2	88.2	167.0	167	72.3
LOS by Move:	A	F	A	A	D	A	B	B	F	F	F	E
HCM2kAvgQ:	0	45	0	0	6	0	6	6	62	10	10	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Shoreline Blvd & US 101 SB Ramp

Cycle (sec): 150 Critical Vol./Cap.(X): 0.597

Loss Time (sec): 9 Average Delay (sec/veh): 20.9

Optimal Cycle: 42 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	0	0	2	0	0	2	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	1559	0	0	709	0	336	0	405	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1559	0	0	709	0	336	0	405	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1559	0	0	709	0	336	0	405	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1559	0	0	709	0	336	0	405	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1559	0	0	709	0	336	0	405	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1559	0	0	709	0	336	0	405	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.79	1.00	0.70	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	0	2992	0	2677	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.41	0.00	0.00	0.19	0.00	0.11	0.00	0.15	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.69	0.00	0.00	0.69	0.00	0.25	0.00	0.25	0.00	0.00	0.00
Volume/Cap:	0.00	0.60	0.00	0.00	0.27	0.00	0.44	0.00	0.60	0.00	0.00	0.00
Uniform Del:	0.0	12.5	0.0	0.0	9.0	0.0	47.1	0.0	49.3	0.0	0.0	0.0
IncrcmntDel:	0.0	0.4	0.0	0.0	0.1	0.0	0.4	0.0	1.5	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	12.9	0.0	0.0	9.1	0.0	47.5	0.0	50.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	12.9	0.0	0.0	9.1	0.0	47.5	0.0	50.7	0.0	0.0	0.0
LOS by Move:	A	B	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	0	19	0	0	6	0	8	0	10	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Shoreline Blvd & Terra Bella Avenue

Cycle (sec): 160 Critical Vol./Cap.(X): 0.782

Loss Time (sec): 12 Average Delay (sec/veh): 34.2

Optimal Cycle: 82 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	17	1494	109	269	626	188	57	18	11	128	24	229
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	1494	109	269	626	188	57	18	11	128	24	229
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	1494	109	269	626	188	57	18	11	128	24	229
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	1494	109	269	626	188	57	18	11	128	24	229
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	1494	109	269	626	188	57	18	11	128	24	229
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17	1494	109	269	626	188	57	18	11	128	24	229

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	0.99	0.91	0.88	0.97	0.89	0.89	0.96	0.78	0.88	0.96	0.78
Lanes:	1.00	1.85	0.15	1.00	1.51	0.49	0.77	0.23	1.00	0.85	0.15	1.00
Final Sat.:	1663	3486	254	1663	2765	830	1306	412	1488	1433	269	1488

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.01	0.43	0.43	0.16	0.23	0.23	0.04	0.04	0.01	0.09	0.09	0.15
Crit Moves:	****			****			****			****		
Green/Cycle:	0.03	0.55	0.55	0.21	0.72	0.72	0.06	0.06	0.09	0.11	0.11	0.32
Volume/Cap:	0.31	0.78	0.78	0.78	0.31	0.31	0.78	0.78	0.08	0.78	0.78	0.48
Uniform Del:	75.6	28.6	28.6	60.0	8.0	8.0	74.6	74.6	67.0	68.9	68.9	43.6
IncrcmntDel:	3.3	2.0	2.0	11.1	0.1	0.1	33.0	33.0	0.3	18.3	18.3	0.8
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	78.9	30.6	30.6	71.1	8.0	8.0	107.6	108	67.2	87.3	87.3	44.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	78.9	30.6	30.6	71.1	8.0	8.0	107.6	108	67.2	87.3	87.3	44.3
LOS by Move:	E	C	C	E	A	A	F	F	E	F	F	D
HCM2kAvgQ:	1	32	32	15	7	7	6	6	1	10	10	10

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Linda Vista Avenue & Terra Bella Avenue

Average Delay (sec/veh): 3.6 Worst Case Level Of Service: B[10.5]

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	-	T	-	R	L	-	T	-	R	L	-	T	-	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled					
Rights:	Include			Include			Include			Include					
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0	1	0	0

Volume Module:

Base Vol:	37	19	30	0	1	0	19	67	21	7	99	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	19	30	0	1	0	19	67	21	7	99	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	19	30	0	1	0	19	67	21	7	99	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	37	19	30	0	1	0	19	67	21	7	99	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	37	19	30	0	1	0	19	67	21	7	99	0

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	xxxxx	6.5	xxxxx	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	4.0	xxxxx	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	229	229	78	xxxx	239	xxxxx	99	xxxx	xxxxx	88	xxxx	xxxxx
Potent Cap.:	730	675	989	xxxx	666	xxxxx	1507	xxxx	xxxxx	1520	xxxx	xxxxx
Move Cap.:	720	663	989	xxxx	654	xxxxx	1507	xxxx	xxxxx	1520	xxxx	xxxxx
Volume/Cap:	0.05	0.03	0.03	xxxx	0.00	xxxx	0.01	xxxx	xxxx	0.00	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	0.0	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	10.5	xxxxx	7.4	xxxx	xxxxx	7.4	xxxx	xxxxx			
LOS by Move:	*	*	*	*	B	*	A	*	*	A	*	*			
Movement:	LT	-	LTR	-	RT	LT	-	LTR	-	RT	LT	-	LTR	-	RT
Shared Cap.:	xxxx	779	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx			
SharedQueue:	xxxxx	0.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx			
Shrd ConDel:	xxxxx	10.2	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx			
Shared LOS:	*	B	*	*	*	*	*	*	*	A	*	*			
ApproachDel:	10.2			10.5			xxxxxx			xxxxxx					
ApproachLOS:	B			B			*			*					

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Linda Vista Avenue & Middlefield Road

Average Delay (sec/veh): 1.1 Worst Case Level Of Service: E[40.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	1	0	0	0	1	1	0

Volume Module:

Base Vol:	3	0	0	13	0	38	37	683	0	25	995	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	0	0	13	0	38	37	683	0	25	995	87
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	0	0	13	0	38	37	683	0	25	995	87
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	0	13	0	38	37	683	0	25	995	87
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	0	0	13	0	38	37	683	0	25	995	87

Critical Gap Module:

Critical Gp:	7.5	xxxx	xxxxxx	7.5	6.5	6.9	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1305	xxxx	xxxxxx	1504	1846	541	1082	xxxx	xxxxxx	683	xxxx	xxxxxx
Potent Cap.:	120	xxxx	xxxxxx	85	76	491	652	xxxx	xxxxxx	919	xxxx	xxxxxx
Move Cap.:	103	xxxx	xxxxxx	80	69	491	652	xxxx	xxxxxx	919	xxxx	xxxxxx
Volume/Cap:	0.03	xxxx	xxxxxx	0.16	0.00	0.08	0.06	xxxx	xxxxxx	0.03	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	40.8	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	10.9	xxxx	xxxxxx	9.0	xxxx	xxxxxx
LOS by Move:	E	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	212	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	0.9	xxxxxx	0.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	27.2	xxxxxx	10.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	D	*	B	*	*	*	*	*
ApproachDel:	40.8				27.2		xxxxxx			xxxxxx		
ApproachLOS:	E				D		*			*		

Note: Queue reported is the number of cars per lane.

Scenario Report
Scenario: Background PM

Command: Default Command
Volume: Background PM
Geometry: Background PM
Impact Fee: Default Impact Fee
Trip Generation: No Trip Generation
Trip Distribution: Distribution
Paths: Default Path
Routes: Default Route
Configuration: Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Shoreline Blvd & US 101 NB Ramp/La Avenida St

Cycle (sec): 140 Critical Vol./Cap.(X): 0.780

Loss Time (sec): 9 Average Delay (sec/veh): 34.5

Optimal Cycle: 69 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Protected			Protected			Split Phase			Split Phase					
Rights:	Ignore			Ignore			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	0	0	2	0	0	2	0	0	0	2	1	1	0	0	1

Volume Module:

Base Vol:	0	407	0	0	2524	0	493	0	469	268	119	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	407	0	0	2524	0	493	0	469	268	119	7
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	407	0	0	2524	0	493	0	469	268	119	7
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	407	0	0	2524	0	493	0	469	268	119	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	407	0	0	2524	0	493	0	469	268	119	7
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	407	0	0	2524	0	493	0	469	268	119	7

Saturation Flow Module:

Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.79	1.00	0.70	0.89	0.97	0.78
Lanes:	0.00	2.00	0.00	0.00	3.00	0.00	2.00	0.00	2.00	1.42	0.58	1.00
Final Sat.:	0	3800	0	0	5700	0	2992	0	2677	2402	1067	1488

Capacity Analysis Module:

Vol/Sat:	0.00	0.11	0.00	0.00	0.44	0.00	0.16	0.00	0.18	0.11	0.11	0.00
Crit Moves:	****			****					****	****		
Green/Cycle:	0.00	0.57	0.00	0.00	0.57	0.00	0.22	0.00	0.22	0.14	0.14	0.14
Volume/Cap:	0.00	0.19	0.00	0.00	0.78	0.00	0.73	0.00	0.78	0.78	0.78	0.03
Uniform Del:	0.0	14.6	0.0	0.0	23.5	0.0	50.4	0.0	51.0	57.9	57.9	51.6
IncramntDel:	0.0	0.0	0.0	0.0	1.3	0.0	4.2	0.0	6.5	7.8	7.8	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	0.0	14.7	0.0	0.0	24.7	0.0	54.6	0.0	57.5	65.6	65.6	51.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	14.7	0.0	0.0	24.7	0.0	54.6	0.0	57.5	65.6	65.6	51.7
LOS by Move:	A	B	A	A	C	A	D	A	E	E	E	D
HCM2kAvgQ:	0	4	0	0	29	0	13	0	13	10	10	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Shoreline Blvd & US 101 SB Ramp

Cycle (sec): 145 Critical Vol./Cap.(X): 0.578

Loss Time (sec): 9 Average Delay (sec/veh): 19.4

Optimal Cycle: 41 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	631	0	0	1462	0	144	0	422	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	631	0	0	1462	0	144	0	422	0	0	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	631	0	0	1462	0	144	0	422	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	631	0	0	1462	0	144	0	422	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	631	0	0	1462	0	144	0	422	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	631	0	0	1462	0	144	0	422	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.79	1.00	0.70	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	0	2992	0	2677	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.17	0.00	0.00	0.38	0.00	0.05	0.00	0.16	0.00	0.00	0.00
Crit Moves:	****			****					****			
Green/Cycle:	0.00	0.67	0.00	0.00	0.67	0.00	0.27	0.00	0.27	0.00	0.00	0.00
Volume/Cap:	0.00	0.25	0.00	0.00	0.58	0.00	0.18	0.00	0.58	0.00	0.00	0.00
Uniform Del:	0.0	9.7	0.0	0.0	13.2	0.0	40.3	0.0	45.5	0.0	0.0	0.0
IncrcmntDel:	0.0	0.1	0.0	0.0	0.3	0.0	0.1	0.0	1.2	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	9.8	0.0	0.0	13.5	0.0	40.4	0.0	46.7	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	9.8	0.0	0.0	13.5	0.0	40.4	0.0	46.7	0.0	0.0	0.0
LOS by Move:	A	A	A	A	B	A	D	A	D	A	A	A
HCM2kAvgQ:	0	5	0	0	17	0	3	0	10	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Shoreline Blvd & Terra Bella Avenue

Cycle (sec): 165 Critical Vol./Cap.(X): 0.708

Loss Time (sec): 12 Average Delay (sec/veh): 31.5

Optimal Cycle: 66 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:												
Base Vol:	54	593	66	100	1676	53	138	24	64	102	17	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	593	66	100	1676	53	138	24	64	102	17	161
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	593	66	100	1676	53	138	24	64	102	17	161
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	593	66	100	1676	53	138	24	64	102	17	161
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	593	66	100	1676	53	138	24	64	102	17	161
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	593	66	100	1676	53	138	24	64	102	17	161

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	0.99	0.91	0.88	1.00	0.92	0.88	0.96	0.78	0.88	0.96	0.78
Lanes:	1.00	1.78	0.22	1.00	1.93	0.07	0.86	0.14	1.00	0.87	0.13	1.00
Final Sat.:	1663	3339	372	1663	3655	116	1447	252	1488	1455	242	1488

Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.06	0.46	0.46	0.10	0.10	0.04	0.07	0.07	0.11
Crit Moves:	****			****			****				****	
Green/Cycle:	0.05	0.52	0.52	0.18	0.65	0.65	0.13	0.13	0.18	0.10	0.10	0.27
Volume/Cap:	0.71	0.34	0.34	0.34	0.71	0.71	0.71	0.71	0.24	0.71	0.71	0.39
Uniform Del:	77.6	23.3	23.3	59.7	18.9	18.9	68.3	68.3	57.9	72.0	72.0	48.7
IncrcmntDel:	26.3	0.1	0.1	0.7	1.0	1.0	9.8	9.8	0.5	13.0	13.0	0.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	103.9	23.4	23.4	60.4	19.9	19.9	78.1	78.1	58.3	85.0	85.0	49.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	103.9	23.4	23.4	60.4	19.9	19.9	78.1	78.1	58.3	85.0	85.0	49.3
LOS by Move:	F	C	C	E	B	B	E	E	E	F	F	D
HCM2kAvgQ:	4	9	9	5	28	28	10	10	3	8	8	7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Linda Vista Avenue & Terra Bella Avenue

Average Delay (sec/veh): 2.4 Worst Case Level Of Service: A[9.9]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	-	T - R	L	-	T - R	L	-	T - R	L	-	T - R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	1	0 0 0

Volume Module:

Base Vol:	16	4	7	1	4	19	5	58	15	11	117	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	4	7	1	4	19	5	58	15	11	117	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	4	7	1	4	19	5	58	15	11	117	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	4	7	1	4	19	5	58	15	11	117	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	4	7	1	4	19	5	58	15	11	117	0

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	226	215	66	220	222	117	117	xxxx	xxxxx	73	xxxx	xxxxx
Potent Cap.:	734	687	1004	740	680	941	1484	xxxx	xxxxx	1540	xxxx	xxxxx
Move Cap.:	710	679	1004	726	673	941	1484	xxxx	xxxxx	1540	xxxx	xxxxx
Volume/Cap:	0.02	0.01	0.01	0.00	0.01	0.02	0.00	xxxx	xxxxx	0.01	xxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx	7.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	763	xxxxx	xxxx	872	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	9.9	xxxxx	xxxxx	9.2	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
Shared LOS:	*	A	*	*	A	*	*	*	*	A	*	*
ApproachDel:	9.9			9.2			xxxxxx			xxxxxx		
ApproachLOS:	A			A			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Linda Vista Avenue & Middlefield Road

Average Delay (sec/veh): 1.3 Worst Case Level Of Service: D[28.6]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	1	0	1	0

Volume Module:

Base Vol:	0	0	3	30	0	24	38	1057	0	31	533	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	3	30	0	24	38	1057	0	31	533	22
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	3	30	0	24	38	1057	0	31	533	22
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	3	30	0	24	38	1057	0	31	533	22
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	3	30	0	24	38	1057	0	31	533	22

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	529	1211	1739	278	555	xxxx	xxxxx	1057	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	500	141	88	726	1026	xxxx	xxxxx	667	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	500	131	81	726	1026	xxxx	xxxxx	667	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.01	0.23	0.00	0.03	0.04	xxxx	xxxx	0.05	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	12.2	xxxxx	xxxx	xxxxx	8.6	xxxx	xxxxx	10.7	xxxx	xxxxx
LOS by Move:	*	*	B	*	*	*	A	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	206	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.0	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	28.6	xxxxx	8.6	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	D	*	A	*	*	*	*	*
ApproachDel:	12.2			28.6			xxxxxx			xxxxxx		
ApproachLOS:	B			D			*			*		

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario:	Background+P AM
Command:	Default Command
Volume:	Background AM
Geometry:	Background AM
Impact Fee:	Default Impact Fee
Trip Generation:	Project AM
Trip Distribution:	Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Shoreline Blvd & US 101 NB Ramp/La Avenida St

Cycle (sec): 160 Critical Vol./Cap.(X): 1.098

Loss Time (sec): 9 Average Delay (sec/veh): 85.7

Optimal Cycle: 180 Level Of Service: F

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	0	0	0	0	2	1	0	1

Volume Module:												
Base Vol:	0	1410	0	0	551	0	433	14	1831	151	71	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1410	0	0	551	0	433	14	1831	151	71	12
Added Vol:	0	4	0	0	3	0	4	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1414	0	0	554	0	437	14	1831	151	71	12
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1414	0	0	554	0	437	14	1831	151	71	12
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1414	0	0	554	0	437	14	1831	151	71	12
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1414	0	0	554	0	437	14	1831	151	71	12

Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.80	0.87	0.80	0.89	0.97	0.78
Lanes:	0.00	2.00	0.00	0.00	3.00	0.00	1.94	0.06	2.00	1.40	0.60	1.00
Final Sat.:	0	3800	0	0	5700	0	2965	95	3052	2362	1110	1488

Capacity Analysis Module:												
Vol/Sat:	0.00	0.37	0.00	0.00	0.10	0.00	0.15	0.15	0.60	0.06	0.06	0.01
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.34	0.00	0.00	0.34	0.00	0.55	0.55	0.55	0.06	0.06	0.06
Volume/Cap:	0.00	1.10	0.00	0.00	0.29	0.00	0.27	0.27	1.10	1.10	1.10	0.14
Uniform Del:	0.0	52.9	0.0	0.0	38.7	0.0	19.3	19.3	36.3	75.3	75.3	71.5
IncrcmntDel:	0.0	56.2	0.0	0.0	0.1	0.0	0.0	0.0	52.2	91.8	91.8	0.7
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	0.0	109	0.0	0.0	38.8	0.0	19.3	19.3	88.4	167.2	167	72.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	109	0.0	0.0	38.8	0.0	19.3	19.3	88.4	167.2	167	72.3
LOS by Move:	A	F	A	A	D	A	B	B	F	F	F	E
HCM2kAvgQ:	0	46	0	0	6	0	6	6	62	10	10	1

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Shoreline Blvd & US 101 SB Ramp

Cycle (sec): 150 Critical Vol./Cap.(X): 0.603

Loss Time (sec): 9 Average Delay (sec/veh): 21.0

Optimal Cycle: 43 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	1559	0	0	709	0	336	0	405	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1559	0	0	709	0	336	0	405	0	0	0
Added Vol:	0	13	0	0	7	0	0	0	5	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	1572	0	0	716	0	336	0	410	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	1572	0	0	716	0	336	0	410	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1572	0	0	716	0	336	0	410	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1572	0	0	716	0	336	0	410	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.79	1.00	0.70	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	0	2992	0	2677	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.41	0.00	0.00	0.19	0.00	0.11	0.00	0.15	0.00	0.00	0.00
Crit Moves:	****			****			****			****		
Green/Cycle:	0.00	0.69	0.00	0.00	0.69	0.00	0.25	0.00	0.25	0.00	0.00	0.00
Volume/Cap:	0.00	0.60	0.00	0.00	0.27	0.00	0.44	0.00	0.60	0.00	0.00	0.00
Uniform Del:	0.0	12.6	0.0	0.0	9.1	0.0	47.0	0.0	49.3	0.0	0.0	0.0
IncrementDel:	0.0	0.4	0.0	0.0	0.1	0.0	0.4	0.0	1.5	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	13.0	0.0	0.0	9.2	0.0	47.4	0.0	50.8	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	13.0	0.0	0.0	9.2	0.0	47.4	0.0	50.8	0.0	0.0	0.0
LOS by Move:	A	B	A	A	A	A	D	A	D	A	A	A
HCM2kAvgQ:	0	19	0	0	6	0	8	0	10	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Shoreline Blvd & Terra Bella Avenue

Cycle (sec): 160 Critical Vol./Cap.(X): 0.795

Loss Time (sec): 12 Average Delay (sec/veh): 35.3

Optimal Cycle: 86 Level Of Service: D

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	17	1494	109	269	626	188	57	18	11	128	24	229
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	17	1494	109	269	626	188	57	18	11	128	24	229
Added Vol:	0	0	4	12	0	0	0	0	0	6	0	20
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	17	1494	113	281	626	188	57	18	11	134	24	249
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	17	1494	113	281	626	188	57	18	11	134	24	249
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	17	1494	113	281	626	188	57	18	11	134	24	249
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	17	1494	113	281	626	188	57	18	11	134	24	249

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	0.99	0.91	0.88	0.97	0.89	0.89	0.96	0.78	0.88	0.96	0.78
Lanes:	1.00	1.85	0.15	1.00	1.51	0.49	0.77	0.23	1.00	0.86	0.14	1.00
Final Sat.:	1663	3477	263	1663	2765	830	1306	412	1488	1441	258	1488

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.01	0.43	0.43	0.17	0.23	0.23	0.04	0.04	0.01	0.09	0.09	0.17
Crit Moves:	****			****			****			****		
Green/Cycle:	0.03	0.54	0.54	0.21	0.72	0.72	0.05	0.05	0.09	0.12	0.12	0.33
Volume/Cap:	0.31	0.80	0.80	0.80	0.31	0.31	0.80	0.80	0.08	0.80	0.80	0.51
Uniform Del:	75.7	29.6	29.6	59.7	8.1	8.1	74.7	74.7	67.1	68.8	68.8	43.2
IncrcmntDel:	3.3	2.3	2.3	11.8	0.1	0.1	35.9	35.9	0.3	19.5	19.5	0.9
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	79.0	31.9	31.9	71.5	8.1	8.1	110.6	111	67.4	88.3	88.3	44.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	79.0	31.9	31.9	71.5	8.1	8.1	110.6	111	67.4	88.3	88.3	44.1
LOS by Move:	E	C	C	E	A	A	F	F	E	F	F	D
HCM2kAvgQ:	1	32	32	16	7	7	6	6	1	10	10	11

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Linda Vista Avenue & Terra Bella Avenue

Average Delay (sec/veh): 3.9 Worst Case Level Of Service: B[10.8]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	0	0	0	1	0	0	0

Volume Module:

Base Vol:	37	19	30	0	1	0	19	67	21	7	99	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	37	19	30	0	1	0	19	67	21	7	99	0
Added Vol:	0	5	8	0	3	3	5	12	0	11	23	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	37	24	38	0	4	3	24	79	21	18	122	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	37	24	38	0	4	3	24	79	21	18	122	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	37	24	38	0	4	3	24	79	21	18	122	0

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	xxxxx	6.5	6.2	4.1	xxxxx	xxxxx	4.1	xxxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	4.0	3.3	2.2	xxxxx	xxxxx	2.2	xxxxx	xxxxx

Capacity Module:

Cnflct Vol:	299	296	90	xxxxx	306	122	122	xxxxx	xxxxx	100	xxxxx	xxxxx
Potent Cap.:	657	619	974	xxxxx	611	935	1478	xxxxx	xxxxx	1505	xxxxx	xxxxx
Move Cap.:	638	602	974	xxxxx	594	935	1478	xxxxx	xxxxx	1505	xxxxx	xxxxx
Volume/Cap:	0.06	0.04	0.04	xxxxx	0.01	0.00	0.02	xxxxx	xxxxx	0.01	xxxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	0.0	xxxxx	xxxxx
Control Del:	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	7.5	xxxxx	xxxxx	7.4	xxxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxxx	723	xxxxx	xxxxx	xxxxx	704	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx	xxxxx
SharedQueue:	xxxxx	0.5	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx	xxxxx	0.0	xxxxx	xxxxx
Shrd ConDel:	xxxxx	10.8	xxxxx	xxxxx	xxxxx	10.2	xxxxx	xxxxx	xxxxx	7.4	xxxxx	xxxxx
Shared LOS:	*	B	*	*	*	B	*	*	*	A	*	*
ApproachDel:	10.8			10.2			xxxxxxx			xxxxxxx		
ApproachLOS:	B			B			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Linda Vista Avenue & Middlefield Road

Average Delay (sec/veh): 1.7 Worst Case Level Of Service: E[42.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	1	0	0	0	0	1	0	0	0	1	0	0

Volume Module:

Base Vol:	3	0	0	13	0	38	37	683	0	25	995	87
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	3	0	0	13	0	38	37	683	0	25	995	87
Added Vol:	0	0	0	9	0	5	5	0	0	0	0	8
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	3	0	0	22	0	43	42	683	0	25	995	95
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	3	0	0	22	0	43	42	683	0	25	995	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	3	0	0	22	0	43	42	683	0	25	995	95

Critical Gap Module:

Critical Gp:	7.5	xxxx	xxxxxx	7.5	6.5	6.9	4.1	xxxx	xxxxxx	4.1	xxxx	xxxxxx
FollowUpTim:	3.5	xxxx	xxxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxxx	2.2	xxxx	xxxxxx

Capacity Module:

Cnflct Vol:	1315	xxxx	xxxxxx	1518	1860	545	1090	xxxx	xxxxxx	683	xxxx	xxxxxx
Potent Cap.:	118	xxxx	xxxxxx	83	74	488	648	xxxx	xxxxxx	919	xxxx	xxxxxx
Move Cap.:	100	xxxx	xxxxxx	77	67	488	648	xxxx	xxxxxx	919	xxxx	xxxxxx
Volume/Cap:	0.03	xxxx	xxxxxx	0.28	0.00	0.09	0.06	xxxx	xxxxxx	0.03	xxxx	xxxxxx

Level Of Service Module:

2Way95thQ:	0.1	xxxx	xxxxxx	xxxx	xxxx	xxxxxx	0.2	xxxx	xxxxxx	0.1	xxxx	xxxxxx
Control Del:	42.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx	10.9	xxxx	xxxxxx	9.0	xxxx	xxxxxx
LOS by Move:	E	*	*	*	*	*	B	*	*	A	*	*
Movement:	LT	-	LTR	-	RT		LT	-	LTR	-	RT	
Shared Cap.:	xxxx	xxxx	xxxxxx	xxxx	175	xxxxxx	xxxx	xxxx	xxxxxx	xxxx	xxxx	xxxxxx
SharedQueue:	xxxxxx	xxxx	xxxxxx	xxxxxx	1.6	xxxxxx	0.2	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shrd ConDel:	xxxxxx	xxxx	xxxxxx	xxxxxx	37.4	xxxxxx	10.9	xxxx	xxxxxx	xxxxxx	xxxx	xxxxxx
Shared LOS:	*	*	*	*	E	*	B	*	*	*	*	*
ApproachDel:	42.2				37.4		xxxxxx			xxxxxx		
ApproachLOS:	E				E		*			*		

Note: Queue reported is the number of cars per lane.

Scenario Report

Scenario:	Background+P PM
Command:	Default Command
Volume:	Background PM
Geometry:	Background PM
Impact Fee:	Default Impact Fee
Trip Generation:	Project PM
Trip Distribution:	Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #1 Shoreline Blvd & US 101 NB Ramp/La Avenida St

Cycle (sec): 140 Critical Vol./Cap.(X): 0.781

Loss Time (sec): 9 Average Delay (sec/veh): 34.6

Optimal Cycle: 69 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound					
Movement:	L	T	R	L	T	R	L	T	R	L	T	R			
Control:	Protected			Protected			Split Phase			Split Phase					
Rights:	Ignore			Ignore			Include			Include					
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0			
Lanes:	0	0	2	0	0	2	0	0	0	2	1	1	0	0	1

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	407	0	0	2524	0	493	0	469	268	119	7
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	407	0	0	2524	0	493	0	469	268	119	7
Added Vol:	0	5	0	0	5	0	8	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	412	0	0	2529	0	501	0	469	268	119	7
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	412	0	0	2529	0	501	0	469	268	119	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	412	0	0	2529	0	501	0	469	268	119	7
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	412	0	0	2529	0	501	0	469	268	119	7

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.79	1.00	0.70	0.89	0.97	0.78
Lanes:	0.00	2.00	0.00	0.00	3.00	0.00	2.00	0.00	2.00	1.42	0.58	1.00
Final Sat.:	0	3800	0	0	5700	0	2992	0	2677	2402	1067	1488

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.11	0.00	0.00	0.44	0.00	0.17	0.00	0.18	0.11	0.11	0.00
Crit Moves:	****			****					****		****	
Green/Cycle:	0.00	0.57	0.00	0.00	0.57	0.00	0.22	0.00	0.22	0.14	0.14	0.14
Volume/Cap:	0.00	0.19	0.00	0.00	0.78	0.00	0.75	0.00	0.78	0.78	0.78	0.03
Uniform Del:	0.0	14.6	0.0	0.0	23.4	0.0	50.6	0.0	51.1	57.9	57.9	51.7
IncramntDel:	0.0	0.0	0.0	0.0	1.3	0.0	4.6	0.0	6.5	7.8	7.8	0.1
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	1.00
Delay/Veh:	0.0	14.7	0.0	0.0	24.7	0.0	55.2	0.0	57.6	65.7	65.7	51.7
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	14.7	0.0	0.0	24.7	0.0	55.2	0.0	57.6	65.7	65.7	51.7
LOS by Move:	A	B	A	A	C	A	E	A	E	E	E	D
HCM2kAvgQ:	0	4	0	0	29	0	13	0	13	10	10	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #2 Shoreline Blvd & US 101 SB Ramp

Cycle (sec): 145 Critical Vol./Cap.(X): 0.586

Loss Time (sec): 9 Average Delay (sec/veh): 19.6

Optimal Cycle: 41 Level Of Service: B

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0	0	2	0	0	0	2	0	0	0	0	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	0	631	0	0	1462	0	144	0	422	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	631	0	0	1462	0	144	0	422	0	0	0
Added Vol:	0	13	0	0	13	0	0	0	11	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	644	0	0	1475	0	144	0	433	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	644	0	0	1475	0	144	0	433	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	644	0	0	1475	0	144	0	433	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	644	0	0	1475	0	144	0	433	0	0	0

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.79	1.00	0.70	0.92	1.00	0.92
Lanes:	0.00	2.00	0.00	0.00	2.00	0.00	2.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	0	3800	0	0	3800	0	2992	0	2677	0	0	0

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.00	0.17	0.00	0.00	0.39	0.00	0.05	0.00	0.16	0.00	0.00	0.00
Crit Moves:	****			****					****			
Green/Cycle:	0.00	0.66	0.00	0.00	0.66	0.00	0.28	0.00	0.28	0.00	0.00	0.00
Volume/Cap:	0.00	0.26	0.00	0.00	0.59	0.00	0.17	0.00	0.59	0.00	0.00	0.00
Uniform Del:	0.0	10.0	0.0	0.0	13.5	0.0	39.9	0.0	45.4	0.0	0.0	0.0
IncrcmntDel:	0.0	0.1	0.0	0.0	0.4	0.0	0.1	0.0	1.2	0.0	0.0	0.0
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	10.0	0.0	0.0	13.9	0.0	40.0	0.0	46.6	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	10.0	0.0	0.0	13.9	0.0	40.0	0.0	46.6	0.0	0.0	0.0
LOS by Move:	A	B	A	A	B	A	D	A	D	A	A	A
HCM2kAvgQ:	0	6	0	0	18	0	3	0	10	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Future Volume Alternative)

Intersection #3 Shoreline Blvd & Terra Bella Avenue

Cycle (sec): 165 Critical Vol./Cap.(X): 0.714

Loss Time (sec): 12 Average Delay (sec/veh): 32.7

Optimal Cycle: 67 Level Of Service: C

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Ovl			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1	0	1	1	0	1	0	1	0	0	1	0

Volume Module:	North Bound			South Bound			East Bound			West Bound		
Base Vol:	54	593	66	100	1676	53	138	24	64	102	17	161
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	54	593	66	100	1676	53	138	24	64	102	17	161
Added Vol:	0	0	7	24	0	0	0	0	0	9	0	20
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	54	593	73	124	1676	53	138	24	64	111	17	181
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	54	593	73	124	1676	53	138	24	64	111	17	181
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	54	593	73	124	1676	53	138	24	64	111	17	181
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	54	593	73	124	1676	53	138	24	64	111	17	181

Saturation Flow Module:	North Bound			South Bound			East Bound			West Bound		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.88	0.98	0.91	0.88	1.00	0.92	0.88	0.96	0.78	0.88	0.96	0.78
Lanes:	1.00	1.76	0.24	1.00	1.93	0.07	0.86	0.14	1.00	0.88	0.12	1.00
Final Sat.:	1663	3298	406	1663	3655	116	1447	252	1488	1469	225	1488

Capacity Analysis Module:	North Bound			South Bound			East Bound			West Bound		
Vol/Sat:	0.03	0.18	0.18	0.07	0.46	0.46	0.10	0.10	0.04	0.08	0.08	0.12
Crit Moves:	****			****			****			****		
Green/Cycle:	0.05	0.49	0.49	0.20	0.64	0.64	0.13	0.13	0.18	0.11	0.11	0.31
Volume/Cap:	0.71	0.37	0.37	0.37	0.71	0.71	0.71	0.71	0.24	0.71	0.71	0.40
Uniform Del:	77.7	26.6	26.6	56.8	19.5	19.5	68.5	68.5	58.1	71.4	71.4	45.0
IncramntDel:	27.4	0.1	0.1	0.7	1.0	1.0	10.3	10.3	0.5	12.7	12.7	0.6
InitQueueDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	105.1	26.7	26.7	57.5	20.5	20.5	78.7	78.7	58.6	84.1	84.1	45.6
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	105.1	26.7	26.7	57.5	20.5	20.5	78.7	78.7	58.6	84.1	84.1	45.6
LOS by Move:	F	C	C	E	C	C	E	E	E	F	F	D
HCM2kAvgQ:	4	10	10	6	29	29	10	10	3	8	8	8

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 Linda Vista Avenue & Terra Bella Avenue

Average Delay (sec/veh): 3.1 Worst Case Level Of Service: B[10.2]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1! 0 0	0	0	1! 0 0	0	0	1! 0 0	0	1	0 0 0

Volume Module:

Base Vol:	16	4	7	1	4	19	5	58	15	11	117	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	16	4	7	1	4	19	5	58	15	11	117	0
Added Vol:	0	6	16	0	6	7	6	25	0	12	21	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	16	10	23	1	10	26	11	83	15	23	138	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	16	10	23	1	10	26	11	83	15	23	138	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	16	10	23	1	10	26	11	83	15	23	138	0

Critical Gap Module:

Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	315	297	91	313	304	138	138	xxxx	xxxxx	98	xxxx	xxxxx
Potent Cap.:	642	618	973	643	613	916	1458	xxxx	xxxxx	1508	xxxx	xxxxx
Move Cap.:	605	604	973	610	599	916	1458	xxxx	xxxxx	1508	xxxx	xxxxx
Volume/Cap:	0.03	0.02	0.02	0.00	0.02	0.03	0.01	xxxx	xxxxx	0.02	xxxx	xxxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.5	xxxx	xxxxx	7.4	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT	LT - LTR - RT
Shared Cap.:	xxxx	735	xxxxx	xxxx	792	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.2	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	10.2	xxxxx	xxxxx	9.8	xxxxx	xxxxx	xxxx	xxxxx	7.4	xxxx	xxxxx
Shared LOS:	*	B	*	*	A	*	*	*	*	A	*	*
ApproachDel:	10.2			9.8			xxxxxxx			xxxxxxx		
ApproachLOS:	B			A			*			*		

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 Linda Vista Avenue & Middlefield Road

Average Delay (sec/veh): 1.9 Worst Case Level Of Service: E[35.1]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0	0	1	0	0	1	0	0	0	1	0	1

Volume Module:

Base Vol:	0	0	3	30	0	24	38	1057	0	31	533	22
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	3	30	0	24	38	1057	0	31	533	22
Added Vol:	0	0	0	12	0	6	9	0	0	0	0	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	3	42	0	30	47	1057	0	31	533	35
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	0	3	42	0	30	47	1057	0	31	533	35
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	3	42	0	30	47	1057	0	31	533	35

Critical Gap Module:

Critical Gp:	xxxxx	xxxx	6.9	7.5	6.5	6.9	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx

Capacity Module:

Cnflct Vol:	xxxx	xxxx	529	1235	1764	284	568	xxxx	xxxxx	1057	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	500	135	85	719	1014	xxxx	xxxxx	667	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	500	125	77	719	1014	xxxx	xxxxx	667	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	0.01	0.34	0.00	0.04	0.05	xxxx	xxxx	0.05	xxxx	xxxx

Level Of Service Module:

2Way95thQ:	xxxx	xxxx	0.0	xxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	0.1	xxxx	xxxxx
Control Del:	xxxxx	xxxx	12.2	xxxxx	xxxx	xxxxx	8.7	xxxx	xxxxx	10.7	xxxx	xxxxx
LOS by Move:	*	*	B	*	*	*	A	*	*	B	*	*
Movement:	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT	LT	LTR	RT
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	190	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	1.6	xxxxx	0.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	35.1	xxxxx	8.7	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	E	*	A	*	*	*	*	*
ApproachDel:	12.2			35.1			xxxxxx			xxxxxx		
ApproachLOS:	B			E			*			*		

Note: Queue reported is the number of cars per lane.

Appendix E

Parking Occupancy Counts

Parking Occupancy Counts- 22DC05 (MV,SV,SJ)

Date: 7/16/2022
Counter: Kathy, Matt, Jo, Mike
Intersection Name: PS and Family View Apts.
Weather: Fair

AUTO CENSUS

Traffic Monitoring and Analysis

7536 Lighthouse Drive
Stockton, CA 95219
Phone: 408-533-3398

	Stewart		Terra Bella	
	Sat. 7/23/22	Tues. 7/26/22	Sat. 7/30/22	Thurs. 7/28/22
6:00 am	0	1	0	0
6:15 am	0	0	0	1
6:30 am	1	2	0	0
6:45 am	1	2	0	0
7:00 am	2	4	1	2
7:15 am	1	2	0	4
7:30 am	4	4	1	5
7:45 am	5	5	0	6
8:00 am	9	6	1	2
8:15 am	6	9	1	3
8:30 am	9	9	3	4
8:45 am	8	7	1	5
9:00 am	10	6	2	6
9:15 am	9	5	4	7
9:30 am	11	8	5	6
9:45 am	11	9	5	7
10:00 am	12	9	6	9
10:15 am	12	9	6	8
10:30 am	10	11	5	9
10:45 am	11	10	6	9
11:00 am	10	6	5	3
11:15 am	9	5	5	6
11:30 am	10	4	8	7
11:45 am	14	5	7	6
12:00 pm	15	6	7	1
12:15 pm	14	6	4	3
12:30 pm	14	7	4	3
12:45 pm	13	10	3	6
1:00 pm	12	11	3	8
1:15 pm	9	12	5	7
1:30 pm	9	12	3	8
1:45 pm	11	11	3	6
2:00 pm	13	10	3	6
2:15 pm	15	8	3	7
2:30 pm	14	7	4	6
2:45 pm	13	7	6	5
3:00 pm	9	4	7	4
3:15 pm	10	4	4	6
3:30 pm	9	6	4	5
3:45 pm	10	3	2	4
4:00 pm	8	4	2	1
4:15 pm	11	9	3	3
4:30 pm	7	11	3	2
4:45 pm	6	8	7	3
5:00 pm	2	7	3	2
5:15 pm	1	6	2	1
5:30 pm	0	4	3	1
5:45 pm	0	3	4	1
6:00 pm	0	2	2	1
6:15 pm	0	2	1	2
6:30 pm	0	0	1	2
6:45 pm	0	0	1	1
7:00 pm	0	0	1	0
7:15 pm	0	0	2	0
7:30 pm	0	0	2	1
7:45 pm	0	0	2	1
8:00 pm	0	0	1	0
8:15 pm	0	0	1	1
8:30 pm	0	0	0	1
8:45 pm	0	0	0	0
9:00 pm	0	0	0	0

Park View Family Apartments		
	Sunday 8/14/22	Thursday 8/16/22
Total Spaces	62	
Total Garages	44	
Occupancy	48	52

Evelyn Family Apartments		
	Sunday 8/10/22	Thursday 8/14/22
Total Spaces	194	
Occupancy	178	184

Parking Occupancy - Weekday Counts

Date:

January 16 - 22

Counter:

Matt, Jo, Kilbee

Job Name:

PS Self-Storage Facilities

Location:

San Jose/Sunnyvale

	875 E. Arques Avenue, Sunnyvale			317 Weddell Drive, Sunnyvale			5679 Santa Teresa Bl, San Jose		
	Thursday, January 17			Wednesday, January 16			Tuesday, January 22		
	Lot	Cut-Thru	Bikes	Lot	On-Street	Bikes	Inside Lot	Outside Lot	Bikes
6:00AM	3	0	0	0	0	0	4	0	0
6:15AM	3	0	0	0	0	0	4	0	0
6:30AM	3	2	0	0	0	0	4	0	0
6:45AM	2	0	0	0	0	0	4	0	0
7:00AM	4	1	0	0	0	0	4	0	0
7:15AM	3	1	0	0	0	0	5	0	0
7:30AM	4	0	0	0	0	0	5	0	0
7:45 AM	3	0	0	0	0	0	4	0	0
8:00 AM	3	0	0	0	1	0	4	0	0
8:15 AM	4	4	0	0	1	0	4	0	0
8:30 AM	3	0	0	0	1	0	3	0	0
8:45 AM	2	2	0	0	1	0	3	0	0
9:00 AM	2	0	0	0	1	0	4	0	0
9:15 AM	2	0	0	0	1	0	3	0	0
9:30 AM	3	0	0	0	1	0	2	0	0
9:45 AM	2	1	0	1	1	0	2	0	0
10:00 AM	2	0	0	1	1	0	2	0	0
10:15 AM	3	1	0	2	1	0	2	0	0
10:30 AM	4	0	0	3	1	0	2	0	0
10:45 AM	4	1	0	3	1	0	2	0	0
11:00 AM	4	3	0	2	1	0	3	0	0
11:15 AM	5	0	0	1	1	0	2	0	0
11:30 AM	4	0	0	1	1	0	2	0	0
11:45 AM	6	0	0	1	1	0	3	0	0
12:00 PM	5	0	0	1	1	0	2	0	0
12:15 PM	10	2	0	1	1	0	3	0	0
12:30 PM	13	0	1	0	1	0	5	0	0
12:45 PM	9	0	0	0	1	0	4	0	0
1:00 PM	8	0	0	0	0	0	5	0	0
1:15 PM	8	0	0	0	0	0	5	0	0
1:30 PM	6	0	0	1	0	0	4	0	0
1:45 PM	5	4	0	1	0	0	3	0	0
2:00 PM	5	0	0	1	0	0	3	0	0
2:15 PM	9	0	0	1	0	0	3	0	0
2:30 PM	8	0	0	2	0	0	3	0	0
2:45 PM	6	0	0	1	0	0	3	0	0
3:00 PM	6	0	0	1	0	0	3	0	0
3:15 PM	5	0	0	2	0	0	3	0	0
3:30 PM	7	1	0	1	0	0	3	0	0
3:45 PM	5	0	0	3	0	0	3	0	0
4:00 PM	4	0	0	1	0	0	3	0	0
4:15 PM	5	0	0	1	0	0	3	0	0
4:30 PM	4	0	0	1	0	0	3	1	0
4:45 PM	6	0	0	3	0	0	3	1	0
5:00 PM	7	0	0	4	0	0	4	0	0
5:15 PM	7	0	0	1	0	0	5	0	0
5:30 PM	7	0	0	0	0	0	6	0	0
5:45 PM	7	0	0	0	0	0	5	0	0
6:00 PM	6	0	0	0	0	0	6	0	0
6:15 PM	7	0	0	0	0	0	7	0	0
6:30 PM	6	0	0	0	0	0	5	0	0
6:45 PM	8	0	0	0	0	0	4	0	0
7:00 PM	3	0	0	0	0	0	4	0	0
7:15 PM	3	0	0	0	0	0	4	0	0
7:30 PM	5	0	0	0	0	0	4	0	0
7:45 PM	4	1	0	0	0	0	3	0	0
8:00 PM	4	0	0	0	0	0	3	0	0
8:15 PM	5	0	0	0	0	0	3	0	0
8:30 PM	6	0	0	0	0	0	3	0	0
8:45 PM	5	0	0	0	0	0	4	0	0
9:00 PM	3	0	0	0	0	0	3	0	0

Parking Occupancy - Saturday Counts

Dates: January 19 - 26
 Counter: Matt, Jo, Kilbee
 Job Name: PS Self-Storage Facilities
 Location: San Jose/Sunnyvale

	875 E. Arques Avenue, Sunnyvale			317 Weddell Drive, Sunnyvale			5679 Santa Teresa Bl, San Jose		
	Saturday, January 19th			Saturday, January 19th			Saturday, January 26th		
	Lot	Cut-Thru	Bikes	Lot	On-Street	Bikes	Inside Lot	Outside Lot	Bikes
6:00AM	3	0	0	0	0	0	3	2	0
6:15AM	4	0	0	0	0	0	3	2	0
6:30AM	4	0	0	0	0	0	3	2	0
6:45AM	4	0	0	0	0	0	3	2	0
7:00AM	4	0	0	0	0	0	3	2	0
7:15AM	4	0	0	0	0	0	3	2	0
7:30AM	4	1	0	0	0	0	3	2	0
7:45 AM	4	0	0	0	0	0	3	2	0
8:00 AM	4	0	0	0	0	0	3	2	0
8:15 AM	4	0	0	0	0	0	4	2	0
8:30 AM	3	0	1	0	0	0	4	2	0
8:45 AM	4	0	0	0	0	0	3	2	0
9:00 AM	5	0	0	1	0	0	3	2	0
9:15 AM	3	0	0	1	0	0	3	2	0
9:30 AM	5	0	0	1	0	0	3	3	0
9:45 AM	7	0	0	1	0	0	3	2	0
10:00 AM	8	0	0	1	0	0	4	2	0
10:15 AM	6	0	0	2	0	0	4	2	0
10:30 AM	7	0	0	1	0	0	4	2	0
10:45 AM	10	0	0	1	0	0	5	2	0
11:00 AM	10	0	0	1	0	0	4	2	0
11:15 AM	8	0	0	2	0	0	5	2	0
11:30 AM	11	0	0	2	0	0	6	3	0
11:45 AM	10	0	0	1	0	0	6	3	0
12:00 PM	11	0	0	1	0	0	5	3	0
12:15 PM	7	0	0	0	0	0	5	3	0
12:30 PM	7	0	0	0	0	0	6	3	0
12:45 PM	6	0	0	1	0	0	5	3	0
1:00 PM	8	0	0	2	0	0	6	3	0
1:15 PM	7	1	0	2	0	0	5	4	0
1:30 PM	6	0	0	3	0	0	4	4	0
1:45 PM	8	0	0	3	0	0	4	4	0
2:00 PM	11	0	0	2	0	0	3	2	0
2:15 PM	13	0	0	2	0	0	3	1	0
2:30 PM	8	0	0	2	0	0	3	1	0
2:45 PM	9	0	0	3	0	0	4	1	0
3:00 PM	8	0	0	4	0	0	4	1	0
3:15 PM	8	0	0	3	0	0	5	2	0
3:30 PM	9	0	0	3	0	0	3	2	0
3:45 PM	12	0	0	4	0	0	3	3	0
4:00 PM	10	0	0	4	0	0	5	2	0
4:15 PM	14	0	0	4	0	0	5	2	0
4:30 PM	13	0	0	3	0	0	5	2	0
4:45 PM	13	0	0	4	0	0	6	2	0
5:00 PM	11	0	0	3	0	0	5	2	0
5:15 PM	11	0	0	3	0	0	6	0	0
5:30 PM	10	0	0	0	0	0	5	0	0
5:45 PM	8	0	0	0	0	0	5	0	0
6:00 PM	8	0	0	0	0	0	6	0	0
6:15 PM	8	0	0	0	0	0	4	0	0
6:30 PM	8	0	0	0	0	0	4	0	0
6:45 PM	8	0	0	0	0	0	3	1	0
7:00 PM	8	0	0	0	0	0	3	1	0
7:15 PM	10	0	0	0	0	0	3	0	0
7:30 PM	10	0	0	0	0	0	4	0	0
7:45 PM	8	0	0	0	0	0	4	0	0
8:00 PM	8	0	0	0	0	0	3	0	0
8:15 PM	8	0	0	0	0	0	3	1	0
8:30 PM	6	0	0	0	0	0	2	1	0
8:45 PM	4	0	0	0	0	0	2	1	0
9:00 PM	4	0	0	0	0	0	2	0	0

Appendix F

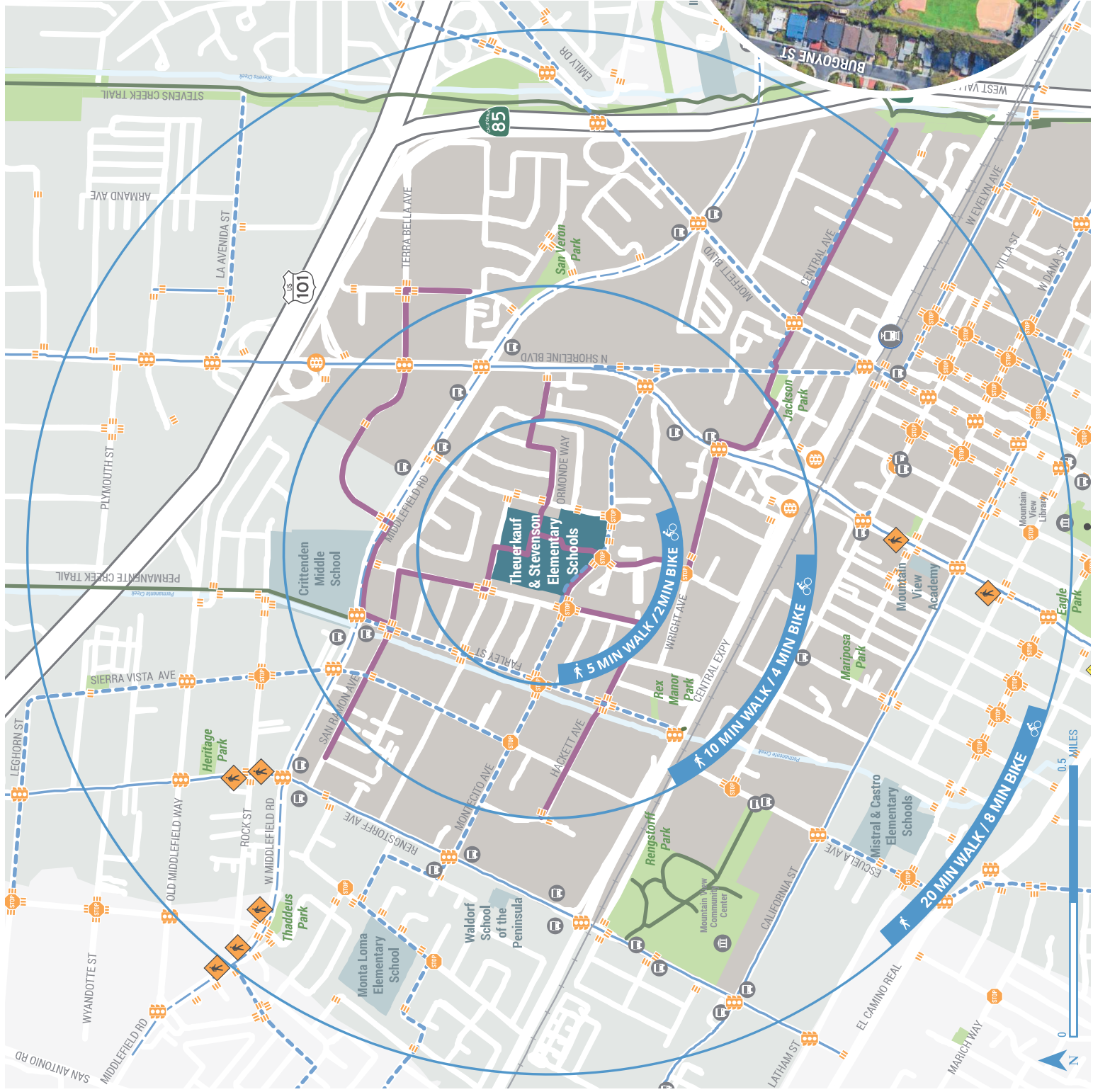
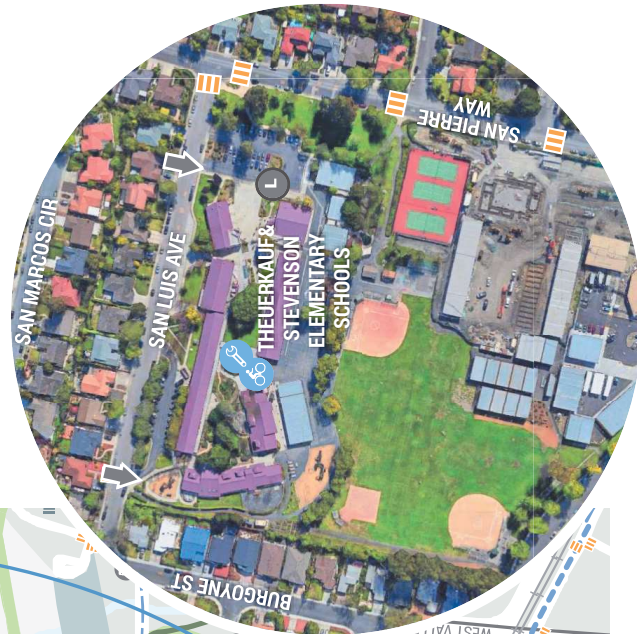
Walk and Roll to School Maps

THEUERKAUF & STEVENSON ELEMENTARY SCHOOLS

1625 San Luis Ave.
Mountain View, 94043

LEGEND























- | | | | |
|--|----------------------------------|--|---------------------------------------|
| | All-Way Stop | | Suggested Route |
| | Traffic Signal With Crosswalk | | Bike Lane |
| | Traffic Signal Without Crosswalk | | Part-Time Bike Lane |
| | Crosswalk | | Bike Route |
| | Pedestrian Signal | | Trail |
| | Bike Parking | | Cycle Track |
| | Bike Repair Station | | Light Rail / Railroad Stop and Tracks |
| | Loading Zone | | Place of Interest |
| | School Entrance | | Bus Stop |
| | Mountain View Boundary | | Pedestrian Bridge |
| | | | School Catchment Area |

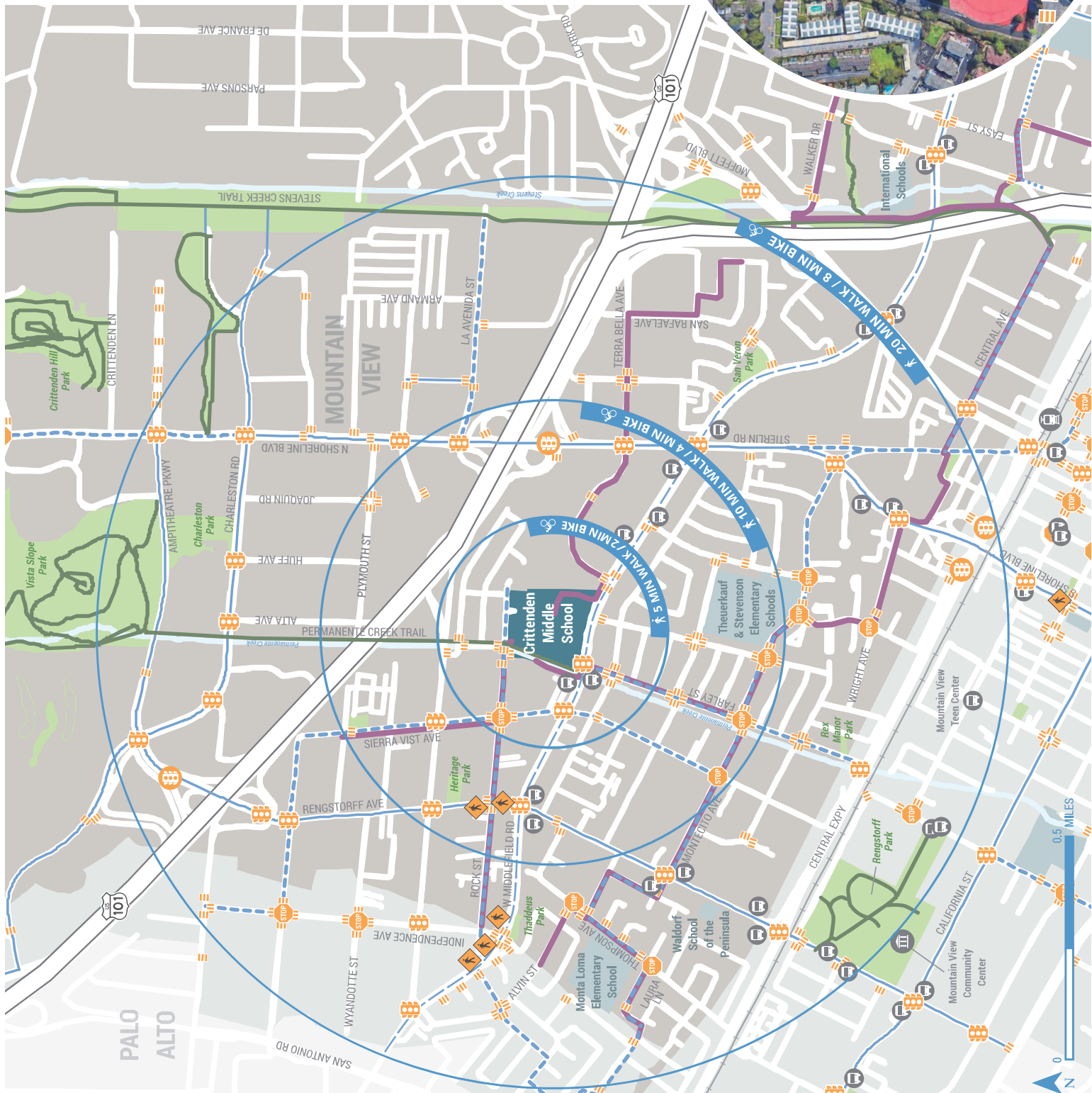


CRITTENDEN MIDDLE SCHOOL

1701 Rock St.
Mountain View, 94043

LEGEND

- | | | | |
|---|----------------------------------|--|---------------------------------------|
|  | All-Way Stop |  | Suggested Route |
|  | Traffic Signal With Crosswalk |  | Bike Lane |
|  | Traffic Signal Without Crosswalk |  | Part-Time Bike Lane |
|  | Crosswalk |  | Bike Route |
|  | Pedestrian Signal |  | Trail |
|  | Crossing Guard |  | Cycle Track |
|  | Bike Parking |  | Light Rail / Railroad Stop and Tracks |
|  | Bike Repair Station |  | Place of Interest |
|  | Loading Zone |  | Bus Stop |
|  | School Entrance |  | Pedestrian Bridge |
|  | Mountain View Boundary |  | School Catchment Area |

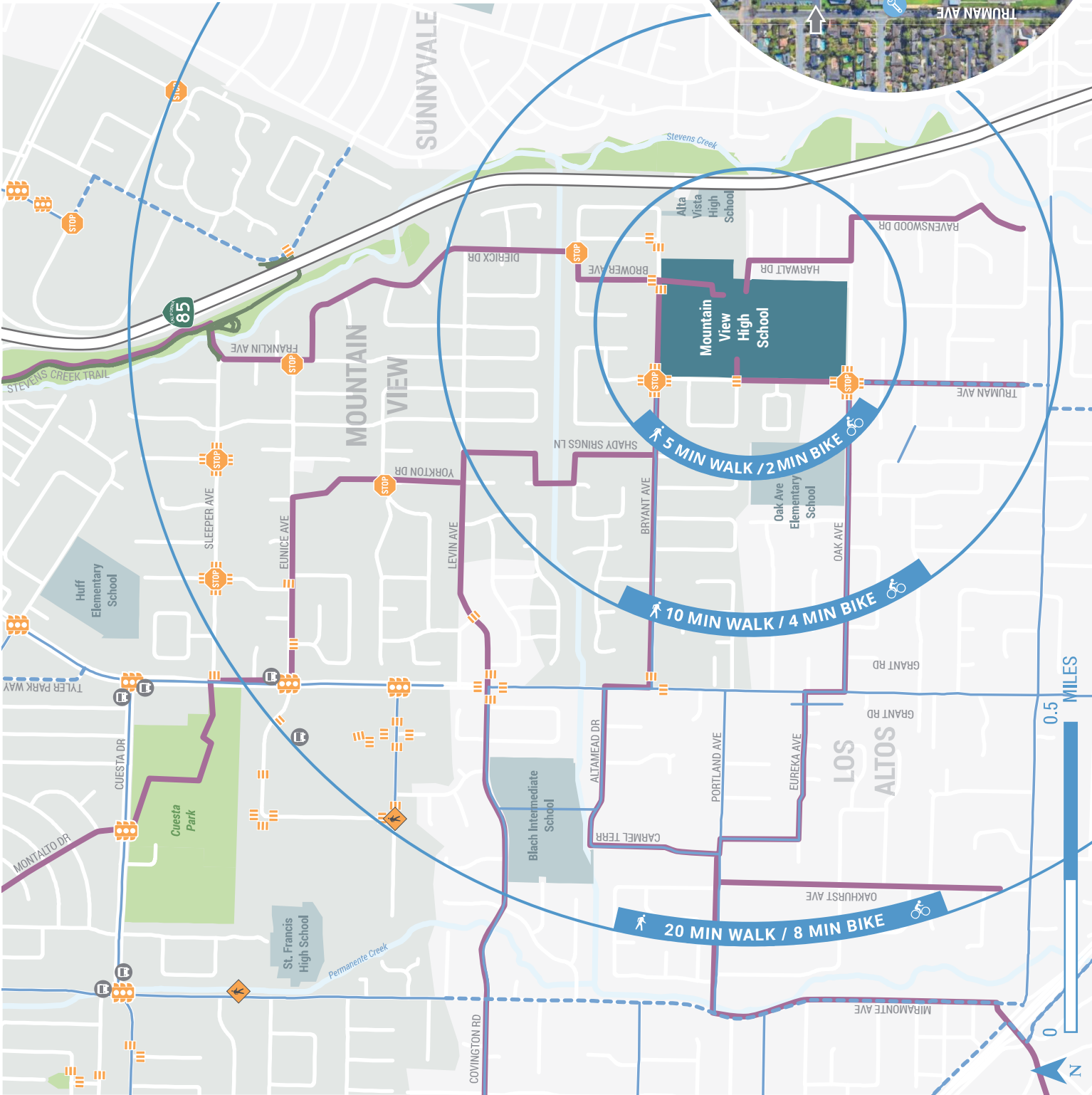


MOUNTAIN VIEW HIGH SCHOOL

3535 Truman Ave.
Mountain View, 94040

LEGEND

- | | |
|-------------------------------|---------------------------------------|
| All-Way Stop | Suggested Route |
| Traffic Signal With Crosswalk | Bike Lane |
| Crosswalk | Part-Time Bike Lane |
| Pedestrian Signal | Bike Route |
| Crossing Guard | Trail |
| Bike Parking | Cycle Track |
| Bike Repair Station | Light Rail / Railroad Stop and Tracks |
| Loading Zone | Bus Stop |
| School Entrance | Place of Interest |
| Mountain View Boundary | Pedestrian Bridge |



Appendix L Appendix L has been REPLACED with the following:

Alta Housing

Terra Bella TDM Plan

January 2023



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TERRA BELLA TDM PLAN

Alta Housing

This TDM Plan is presented to satisfy the Residential TDM Standards, as outlined in Section 3.9.2. of the [East Whisman Precise Plan](#) (EWPP). Accordingly, it is organized as follows:

- **Project Background** – An overview of the project and its surrounding development and transportation context.
- **Proposed TDM Plan** – As proposed for the project, organized according to the requirements presented in the EWPP, as follows:
 - TMA Requirement – As a new residential development of at least 100 units, the property will comply with the requirement to establish and maintain membership with the Mountain View Transportation TMA.
 - Site Plan Requirements – Site Design TDM strategies, as required and as proposed for the development.
 - TDM Plan Operational Requirements – Operational TDM strategies, as required and as proposed for the development
 - Parking Rationale – Demonstration of how the TDM Plan will ensure that the parking provided at Terra Bella will be sufficient to meet all the parking needs of the development.
 - TDM Monitoring & Results – A statement on commitment to comply with all monitoring and results related requirements.

1 PROJECT BACKGROUND

Project Description

Terra Bella, an affordable housing development proposed by Alta Housing, will be in the City of Mountain View at 1020 Terra Bella Avenue -- south of US-101 and west of SR-85. The project will have 108 apartments, including a combination of 30% and 60% Area Median Income (AMI) units for persons with disabilities (I/DD), and Rapid Rehousing. To meet the City's Conditions of Approval, Alta Housing submits the following Draft Transportation Demand Management (TDM) Plan. Additionally, this TDM Plan includes a set of TDM strategies selected to reduce on-site parking demand to align with the proposed parking supply of 96 spaces.

Proximity to Transit Services

Valley Transportation Authority

Fixed-Route Service

Table 1 Bus route near Terra Bella

Bus Route	Description	Days of the Week	Span of Service	Frequency	Bus Stop Location
40	Foothill College - Mountain View Transit Center via North Bayshore	Mon-Sun	6:14 a.m. – 10:30 p.m.	30 mins (weekdays) ~50 minutes (weekends/holidays)	Shoreline Blvd. & Terra Bella Ave

Valley Transportation Authority (VTA) operates a fixed-route local bus service throughout the City of Mountain View. Terra Bella is 0.3 miles (5-minute walk) from VTA's Route 40 northbound and southbound bus stops. The route runs seven days a week at 30-minute frequencies on weekdays and 50-minute frequencies on weekends. The Mountain View Transit Center is a 15-minute bus ride, connecting riders to other local routes and regional transportation options, including Caltrain.¹ A single ride is \$2.50.

Paratransit Service

VTA ACCESS paratransit service is available to eligible individuals with disabilities who cannot use conventional fixed-route and light-rail services due to physical, visual, or cognitive disabilities.

¹ Valley Transportation Authority (2022). *Foothill College – Mountain View Transit Center via North Bayshore*. Retrieved from <https://www.vta.org/go/routes/40>

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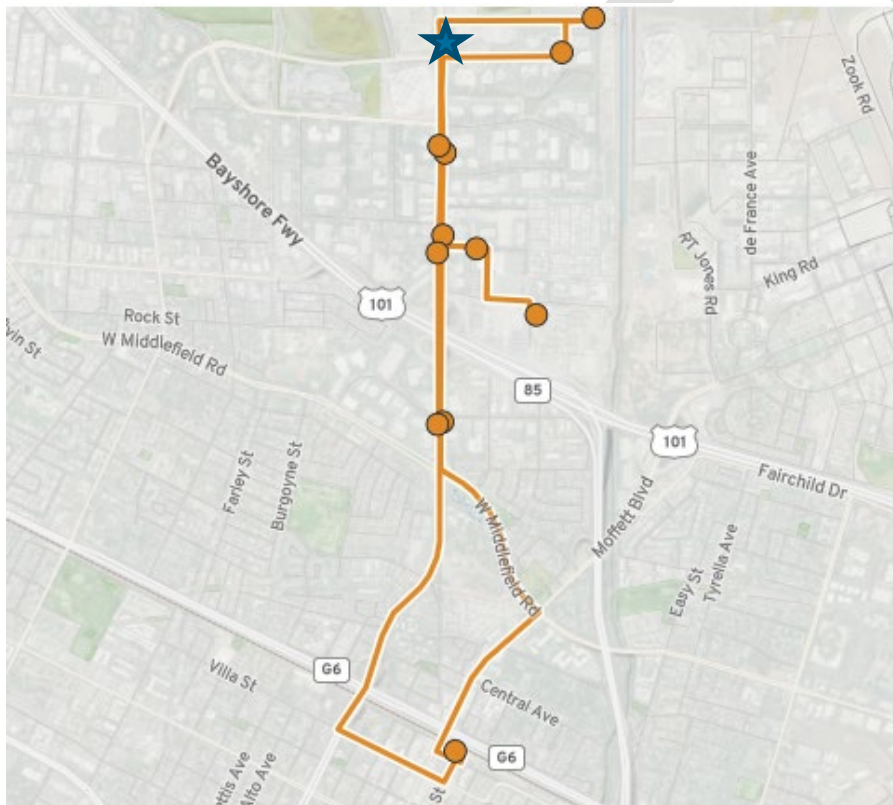
Alta Housing

Eligible riders can reserve trips up to three days in advance. One-way standard trips are \$4.00, premium trips (outside the service area) are \$16, and same-day trips are \$16.²

MVgo Shuttles

Mountain View's MVGo Shuttles are fare-free public service that provides a first and last-mile transit connections from the Mountain View Transit Center to various locations throughout the city. Terra Bella is on Route B which will provide future residents direct access to amenities along Shoreline Boulevard, looping through the transit center and traveling along Moffet Boulevard and W. Middlefield Road. The Shuttle is two blocks from the site and runs every 30-minutes between 6:30 a.m. and 10:30 a.m. and then in the afternoons, between 4:00 p.m. and 7:00 p.m. MVgo shuttle buses are wheelchair accessible and equipped with bike racks and real-time tracking equipment to provide riders with shuttle arrival predictions.³

Bus route near Terra Bella (Map)



Mountain View Community Shuttle

In addition to MVgo shuttles, the Mountain View Transportation Management Association (MTMA), in partnership with the City, runs the Mountain View Community Shuttle. The Community Shuttle fill

² Valley Transportation Authority (2022). VTA Access Paratransit. Retrieved from <https://www.vta.org/go/paratransit#accordion-fares>

³ MVGo Shuttles (2022). Route B – Shoreline, La Avenida, Crittenden. Retrieved from <https://mvgo.org/routes/b/>

gaps in mid-day and evening service. There are two routes -- the red route (clockwise) and grey route (counterclockwise) -- which both run seven days a week. Weekday service is every 30-minutes between 7 a.m. and 7 p.m. and weekend service is every 60-minutes between 10 a.m. and 10 p.m.⁴ Both routes are a 1-minute walk from the site at Middlefield Road and Shoreline Boulevard.

Proximity to Active Transportation Facilities

Bicycle Facilities

Terra Bella is within two blocks of a Class II bike lane along Shoreline Boulevard and is a 10-minute bike ride to the Stevens Creek Trail -- a 20-mile Class I multi-use path that runs between Shoreline Park and Dale and Heatherstone.⁵

The City of Mountain View is planning Class IV protected bike lane improvements to the existing Class II bike lane on Shoreline Boulevard, between Middlefield Road and Terra Bella Avenue. A Class I multi-use path is also planned on Shoreline Boulevard, between Shorebird Way and Terra Bella Avenue.

As noted in the City of Mountain View's *Shoreline Boulevard Transportation Corridor Study* and prioritized in the *2015 Bicycle Transportation Plan Update*, the intersection of Shoreline Boulevard and Terra Bella Avenue will receive bicycle improvements, such as physical barriers to separate bicycles and vehicles, distinct high-visibility crosswalks, and pavement markings to clearly define the route.

Additional bike facility improvements include .66 miles of Class I trail/shared-use path improvements on Shoreline Boulevard, between Shorebird Way and Terra Bella Avenue.^{6,7}

Pedestrian Access

Terra Bella will be built in an industrial area that is adjacent to familiar technology firms and campuses, including Google. The nearest walk to a grocery store and pharmacy is a 15-minute walk along Shoreline Boulevard, a four-lane corridor. While Shoreline Boulevard has sidewalks and pedestrian-scaled lighting, there is room for improvement. The Shoreline Bus Lane project includes

⁴Mountain View Community Shuttle (2022). Retrieved from <https://mvcommunityshuttle.com/>

⁵ City of Mountain View (2015) *Bicycle Transportation Plan Update*. Retrieved from <https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=18294>

⁶ City of Mountain View and Nelson\Nygaard (2014). *Shoreline Boulevard Corridor Study*. Retrieved from <https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=15441>

⁷ City of Mountain View (2015). *Bicycle Transportation Plan Update*. Retrieved from <https://www.mountainview.gov/civicax/filebank/blobdload.aspx?BlobID=18294>

plans to build protected intersections at Middlefield Road and Shoreline Boulevard and to add wider sidewalks between Plymouth Street and the Mountain View Transit Center.⁸

Proximity to Daily Needs & Amenities

The Terra Bella site is within a four-minute bike ride, 10-minute transit trip, or a 10 to 15-minute walk to many basic goods, services, and amenities, most of which are located along Shoreline Boulevard. Nearby basic amenities include pharmacies, grocery stores, public vehicle charging stations, post-office, and banks.

The site also is located within a five-minute bike ride or 10 to 15-minute walk to various parks, trails, and recreation centers, including Stevens Creek Trail, Creekside Park, San Veron Park, Whisman Park, Crittenden sports fields, and the Whisman Sports Center. There are four schools near the site: Stevenson Elementary, Theuerkauf Elementary, and Crittenden Middle. There are a variety of entertainment options and venues near the site for residents to enjoy. These include, but are not limited to, the Shoreline Amphitheater, Shoreline Park, Stevens Creek Trail, Century Cinema 16, the Pear Theatre, and Theatre You.

⁸ City of Mountain View (2022). *City Project Highlights*. Retrieved from <https://www.mountainview.gov/depts/pw/projects/highlights.asp>

2 PROPOSED TDM PLAN

TDM strategies work together to reduce single-occupancy vehicle (SOV) trips and parking demand by expanding mobility options to encourage residents and visitors to use of non-driving modes. This TDM Plan is presented to satisfy the Residential TDM Standards, as outlined in Section 3.9.2. of the [East Whisman Precise Plan](#) (EWPP). Accordingly, it is organized as follows:

- **TMA Requirement** – As a new residential development of at least 100 units, the property will comply with the requirement to establish and maintain membership with the Mountain View Transportation TMA.
- **Site Plan Requirements** – Site Design TDM strategies, as required and as proposed for the development.
- **TDM Plan Operational Requirements** – Operational TDM strategies, as required and as proposed for the development
- **Parking Rationale** – Demonstration of how the TDM Plan will ensure that the parking provided at Terra Bella will be sufficient to meet all the parking needs of the development.
- **TDM Monitoring & Results** – A statement on commitment to comply with all monitoring and results related requirements.

Measures that are required for TDM Plan in the East Whisman Precise Plan are indicated via underlined text.

TMA Membership

As a new residential development of at least 100 units, Terra Bella will comply with the requirement to establish and maintain membership with the Mountain View TMA.

Site Plan Strategies

Designated Carshare Parking

Guided by the EWPP, Alta Housing will maintain two spaces, in a highly visible location accessible to both building users and the general public, to remain available to residents who participate in peer-to-peer car-sharing, as an incentive for participation, on a “right of first refusal” basis. At times when one or both spaces are not claimed by car-share participants, these spaces will be made available as general, resident parking spaces.

Bicycle Parking

Per the EWPP, Alta Housing will provide ample, convenient, and secure bicycle parking to support and increase bicycling for transportation. Per the city's parking standards⁹, Alta Housing will allocate:

Table 2 Bicycle Parking Standards for Multifamily Housing (EWPP, pg. 90)

Land Use	Short-Term Parking	Long-Term Parking	Showers
Multi-Family Residential	1 per 10 units	1 per unit	None Required

Short-term bicycle parking is for guests and will include inverted-U bicycle racks in well-lit and highly accessible locations near building entrances. Long-term bicycle parking will be secure to protect against theft. Bicycle lockers, enclosed cages or other restricted interior areas are typical types of long-term bicycle parking.

Collaborative Workspace

A business services room can help encourage and facilitate working from home, which can have a direct impact on reducing trips to and from the site. Such an amenity is a typical part of large residential buildings, though the size and specific services included vary. The workspace is likely to include a rentable work room that can be reserved, video conferencing equipment, high-speed internet connections, basic office supplies, and printing, scanning, and faxing services. For residents interested in using this workspace long term, dedicated mailboxes for businesses could be set aside and located nearby.

Site Design/Pedestrian Oriented

The site will comply with the city's pedestrian-oriented design standards. Alta Housing will construct the site with 7' city standard concrete sidewalks, flower gardens and thematic plantings, gathering areas, bollard lights along the sidewalk, and accent pavers to delineate the location of the bike plaza. The site will be landscaped to improve traffic safety.

Secure Storage

Delivery Service Partnerships

The property manager will partner with online personal service providers (i.e., Instacart, Postmates, DoorDash, etc.) to facilitate efficient delivery, and space to hold deliveries, including a refrigerator for perishable deliveries. for residents to pick up. These partnerships reduce the need for a personal vehicle ownership and the frequency of one-stop trips.

⁹ City of Mountain View (2022). *Parking and Loading*. Retrieved from https://library.municode.com/ca/mountain-view/codes/code_of_ordinances?nodeId=PTIITHCO_CH36ZO_ARTXPALO_DIV6BIPAST

Family TDM Amenities

Providing secure storage space for personal car seats, strollers, athletic or other extracurricular gear, and other large equipment can address challenges residents have while traveling. Moreover, Alta Housing will plan to locate the space near car share parking spaces to make it easier for families to travel without feeling a personal vehicle is necessary. If this measure is implemented without a dedicated employee, residents will be able to access the space with an access code or key card.

Operational TDM Strategies

Shared Bicycles and Resource Center

Loaner bicycles, helmets, and lights will be provided for resident use to facilitate non-driving access to neighborhood goods, services, and amenities. These bicycles will be provided as part of a bicycle resource center – dedicated space for residents to get information about bicycling and use shared tools for bicycle repairs and maintenance. A dedicated space contributes to social acceptance of bicycling and reduces maintenance costs, one key barrier associated with owning a bicycle.

Information Distribution

Marketing Materials, Promotional Events and Activities.

The TDM coordinator will oversee the active management of the TDM program through the distribution of marketing materials. Content will include a welcome packet detailing the TDM program, incentives, and upcoming events.

Mobility Concierge

The TDM coordinator will be a mobility concierge to residents and visitors. Beyond facilitating the abovementioned strategies, the TDM coordinator will share information about the nearest mobility services and liaise with residents to understand which strategies are the most effective and which strategies should be eliminated, revised, or added. The TDM coordinator will meet with residents at move-in to have one-on-one conversations about the site's mobility services, provide information about tax benefits, and talk through nearby transit options.

Sustainable Travel Pledge

A sustainable travel pledge is a commitment to sustainable modes of transportation site wide. This can take many forms including residents' and employees' signing that underscores their individual and household commitment to reducing their impact on the environment. Pledges can be a part of the site's programming and an opportunity to bring people together around a common goal and initiative.

Safe Routes to School Promotion

As stated in the EWPP, the site needs to support Safe Routes to School programs (SR2S). At Terra Bella, the Transportation Coordinator/Property Manager will manage this requirement as part of their

role. The coordinator will promote SR2S by posting materials to analog and digital bulletin boards, notify families during move-in, coordinate a bicycle train and/or walking school bus for families with school aged children, and be available to coordinate with residents to facilitate events at Terra Bella and in the broader neighborhood.

Monetary Incentives

Pre-Tax Transportation Benefits

The federal tax code includes tax-free transportation fringe benefits. For 2022, the monthly subsidy limit is \$280 per month for transit and parking. The Terra Bella residential coordinator will publish information about the tax benefit in the welcome packet and on the site's online web portal and further support residents through the process during one-on-one concierge services.

Unbundled Parking

Unbundled parking separates the cost of leasing a parking space from the cost of renting or purchasing a residential unit. Separating the cost of a parking space from the sale or lease of a housing unit saves money for households that do not wish to park a vehicle. This policy recognizes the cost of parking for residents and helps them determine if it is a worthwhile expense, as opposed to it being incorporated into the overall price of renting or buying a home regardless of whether the resident owns a vehicle.

Because the proposed development is Tax Credit funded, including the cost of the on-site parking, charging residents for the parking will be prohibited.

Free Loaner Bicycles

Loaner bicycles, helmets, and lights will be provided for resident use to facilitate non-driving access to neighborhood goods, services, and amenities. These bicycles will be provided as part of a bicycle resource center – dedicated space for residents to get information about bicycling and use shared tools for bicycle repairs and maintenance.

Free or Subsidized Public Bicycle and Scooter Share

When available in the City, the TDM coordinator will partner with public bicycle and scooter share providers to coordinate free or subsidized membership for all residents who use these services. Public bicycle and scooter share parking shall be conveniently located near building entrances. Free or subsidized membership will also be provided to all residents who meet the eligibility criteria (e.g., over 18 years). Loaner helmets will also be made available to all residents free of charge.

Additional Measures to Reduce Parking Needs

Peer to Peer Carshare

The TDM coordinator will facilitate the implementation of a peer-to-peer carshare program available to the residents of Terra Bella and neighboring sites, including Linda Vista. Residents will lead the program -- making decisions about whether carshare will be managed by resident liaisons or by a

third-party vendor, like Getaround or Turo. The peer-to-peer carshare strategy will take time to develop, but while there are gaps in the existing transit network, it will be a practical alternative transportation option.

Bike Trainings and Workshops

Organizing safety, repairs, maintenance, and other training sessions and workshops can increase bike ownership confidence and enthusiasm and generate a sense of connection within the biking community. The property owner/TDM coordinator will coordinate with a resident liaison team and local CBOs to set up bike training workshops throughout a given year.

CSA or Farmers' Market Partnership

Partnering with local community-supported agriculture (CSA) organizations has the potential to reduce greenhouse gas emission and vehicle-trips by providing residents convenient access to locally sourced food, reducing the number of trips and vehicle miles traveled by both vendors and consumers. This measure could also have marketing benefits and reinforce the site's overall message about sustainability. Program elements will include pickup and delivery accommodations, on-site markets, and discount and membership benefits. The TDM coordinator will seek to further coordinate with the city's Supplemental Nutrition Assistance Program (SNAP) to support residents and adjacent neighbors who need reliable access to affordable food source.

Note: This TDM plan is a living document that will be revised once the site is at full occupancy. Residents must have ownership of their mobility plan, working with the TDM coordinator to facilitate conversations regarding which TDM strategies will best improve mobility and access to essential services. Moreover, TDM strategies are subject to change based on market fluctuations. For example, new consumer facing commuter-related services (i.e., scooters, bike share, etc.) enter and exit the market with frequency. If strategies need to be swapped out, the TDM coordinator will work with residents and the broader Alta Housing team to identify replacements that to achieve an equivalent parking reduction. Furthermore, TDM items marked as "Required" will not be changed without written approval from the City of Mountainview Public Works Director or designee.

Parking Rationale

Parking Demand Analysis

Baseline Parking Demand Projection

The development is proposed as a residential-only property, to consist of a mix of the following housing-unit types:

- Independent, Developmentally Disabled
- Rapid Rehousing
- Affordable Housing

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Parking demands for Rapid Housing and for independent, developmentally disabled units are based on comparable Alta Housing project. Parking demand for the remaining units was calculated using the parking analysis conducted by the City. These are outlined below, followed by the recommended parking supply.

Factoring for Hexagon Traffic Analysis Report Findings

City of Mountain View staff have provided a copy of the Transportation Analysis report, completed for the City by Hexagon Transportation Consultants, Inc. in August 2022. This report includes a section on Parking Supply, in which projections of parking demand for the proposed development are presented, based on findings from parking occupancy counts, completed at “similar sites in the region”. The report states that these findings suggest that “...affordable housing developments have an average parking demand of 1.36 spaces per unit...”(page 44). This, the report notes, suggests that **a supply of 147 spaces should be provided for the proposed housing units.**

The southbound left turn impact noted in the Hexagon report will be addressed through the trip-reduction effects of this proposed TDM plan. Since the property will be 100% residential in nature, and the TDM Plan is projected to reduce parking demand by 15%, this translates to 15% fewer vehicles making trips from the property to impact the intersection of concern here. This reduction in the number of resident vehicles making trips from the property will eliminate 2-3 vehicles from the left turn lane. Thereby, not causing the anticipated impact. Further, there are several strategies that incentive non-driving modes, further contributing to less vehicle trips.

Recommended Ratios

The ratios developed from comparable Alta Housing properties are recommended as the best fit option for the I/DD and Rapid Rehousing units. For the Affordable Units, the ratio developed based on the parking analysis in the Hexagon report – 1.36 spaces per unit – is recommended. This combination of ratios **results in a projected supply need of 123 spaces.**

Table 3 Recommended Baseline Parking Demand Ratios

Unit Type	Total Units	Demand-Generation Rate (Spaces/Unit)	Total Demand (Spaces)
I/DD	10	0.85	9
Rapid Rehousing	27	0.6	17
Affordable Units	71	1.36	97
All Units	108	N/A	123

Factoring For TDM

As the term “baseline” suggests, however, these projections are estimates based on parking-demand ratios that do not assume any intentional efforts to reduce resident parking demand rates, through site planning and design or operational/programmatic TDM strategies. Therefore, to provide a more accurate projection of the parking needs for the proposed development, this section refines the above baseline projections, factoring for the strategies proposed in the TDM Plan outlined above.

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The strategies listed in the TDM Program include several well-researched and documented measures that can be anticipated to reduce residential parking demand from the baseline estimate outlined in the table above. The fact that many of these strategies are required for residential developments in the EWPP underscores the demonstrated effectiveness in reducing residents' reliance on personal auto travel and ownership. The proposed TDM Plan includes measures beyond those required in the EWPP, to ensure meaningful reduction in on-site parking needs, and to that will improve residents' access to and from key destinations by non-driving modes. The supply reduction that this will allow will also significantly reduce the cost of the overall development, allowing Alta Housing to reduce the cost of the critically needed housing units it will provide.

The proposed TDM Plan would reduce peak parking demand by at least 15%, and up to 40% -- reducing the estimated total demand identified in Table 3 above (123 spaces) to no more than 105 spaces, and to as low as 74 spaces Given the affordable-housing nature of the proposed project, we believe that the strategies in the TDM Plan will be more than sufficient in their effectiveness to ensure that resident parking demand can be accommodated via the proposed supply of 96 spaces. As such, Alta is requesting a concession from the City of Mountainview to approve the proposed supply of 96 spaces.

The section below outlines our methodology for estimating the effectiveness of the TDM Plan .

TDM Impact Analysis

Impact of Individual TDM Strategies

The most prominent and well-documented source for measuring the effectiveness of TDM strategies is a set of reports published by the California Air Pollution Control Officers Association (CAPCOA). Both its 2010 "Quantifying Greenhouse Gas Mitigation Measures" and 2021 "Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity" compile extensive research and findings from an expansive literature review. These reports summarize research-based findings on demand-reduction impacts from an extensive list of common TDM measures, and detail assumptions and limitations of each measure. While this measure can be a good proxy for reducing trips for office and commercial land uses, it is much less reliable in projecting potential reductions in residential parking demand.¹⁰

To address these limitations, Nelson\Nygaard Consulting Associates conducted its own research into available literature on documented TDM effectiveness in reducing resident parking demand (vehicle ownership rates). Published sources reviewed include San Francisco's 'SF Shift' TDM program and efforts led by regional planning agencies including the Valley Transportation Authority's VMT Calculator, and San Diego Association of Government's Mobility Management Toolkit. These new

¹⁰ *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (2021). Retrieved from [https://www.airquality.org/ClimateChange/Documents/Handbook%20Public%20Draft 2021-Aug.pdf](https://www.airquality.org/ClimateChange/Documents/Handbook%20Public%20Draft%202021-Aug.pdf)

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sources more accurately calculate demand reductions (in terms of parking supply) expected from common TDM measures, specific to residential developments.

Table 4 TDM Strategies in the Proposed Terra Bella TDM Plan

TDM Measures	Source of Reduction Impact Estimate	Projected Parking Demand Reduction Range	
		Low	High
TMA Membership	North Bayshore TDM Guidelines: Trip Reduction Marketing (grouped, includes TMA, website with real-time transit info, TDM coordinator, sustainable incentives), 4%	1%	4%
On-Site Carshare	<p>Jain et al. (2021) - One in three households reduced car ownership, and most reductions occurred in the year prior to joining car share. Fleet-based car share members reported a larger reduction in car ownership compared to peer-to-peer car share members.</p> <p>Cervero (2007) - 7 cars shed for every 100 carshare members; 24.2% reduced vehicle ownership by 1 or more; NET 3 cars are do owners + non owners; but reduction still useful for residential onsite</p> <p>Klincevius (2014) - 40 to 60% of households with membership are carless; increase of 20% of members who were carless after joining; 9-13 cars removed for every 1 shared car (those who removed a car or gave up a car)</p>	2%	16%
Bicycle Parking	<p>CAPCOA: SDT-7 Provide Bike Parking with Multi-Unit Residential Projects (grouped with LUT-9 Improve Design of Development, 3-21.3%)</p> <p>SF Shift: ACTIVE-2 Bike Parking, 1-4%</p>	1%	4%
Collaborative Workspace	CAPCOA: TRT-6 Telecommuting and Alternative Work Schedules	1%	2%
Site Design/Pedestrian Oriented (Required)	CAPCOA: SDT-1 Provide Pedestrian Network Improvements, 0-2% and LUT-9, Improve Design of Development 3% - 21.13%	1%	5%
Delivery-Supported Amenities	SF Shift: DELIVERY-1 Delivery Supportive Amenities, 1%	1%	2%

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Family TDM Amenities	SF Shift: FAMILY-1 Family TDM Amenities, 1-2%	1%	2%
Shared Bicycles and Resource Center	SF Shift: Tailored Transportation Marketing	1%	4%
Bike Repair/Wash Stations	SF Shift: ACTIVE-5 Bike Repair Station/Maintenance Services, 1%	1%	1%
Bike Trainings & Workshops	SF Shift: Tailored Transportation Marketing, 1-4% San Jose / SANDAG: Community Based Travel Planning, 0-2%	1%	4%
TDM Coordinator/Mobility Concierge	San Jose / SANDAG: Community Based Travel Planning, 0-2%	1%	2 %
Informational/Promotional Materials	CAPCOA: TRT-7 CTR Marketing SF Shift: INFO-3 Tailored Transportation Marketing San Jose / SANDAG: Community Based Travel Planning	1%	4%
Pre-Tax Transportation Benefit	CAPCOA: TRT-4 Subsidized or Discounted Transit Program, 0.3-20%	1%	1%

Collective Effect of TDM Plan

The effect of the above measures, implemented together in accordance with the proposed TDM Plan, cannot accurately be projected by simply adding the low-end or high-end effectiveness measure of each strategy. Strategies work together to complement and amplify their effectiveness. A set of complementary TDM measures will be more effective than the sum of its strategies' estimated effectiveness. However, many TDM measures can also compete with each other, producing a collective effect when implemented together than their individual effectiveness estimates would suggest.

Our analysis addresses these factors by organizing TDM measures into functional categories and defining a limit on how much demand reduction should be estimated for measures within each – see table below.

Table 5 TDM Functional Categories

Category	Description	Maximum Reduction Calculation for this Category
Parking Management Measures	These measures focus on pricing and other regulatory tools for incentivizing alternatives to personal vehicle parking.	20%
Program & Services	These measures include benefits and services that incentivize use of non-driving travel options.	25%
Physical Features	These measures reflect urban design strategies to incentivize non-driving modes, such as improvements to walking and cycling infrastructure, traffic calming measures, transit stop improvements, delivery lockers, key land-use complements, and other similar on-site and contextual factors	10%
Promotions & Activities	These are measures that focus on increasing the awareness, appeal, and use of the TDM measures included in the other categories	5%

The caps on estimated effectiveness for each category of measures ensures against overestimating the impact of measures that are more competitive than complementary.

Calculated Reduction

As shown in the table below, applying the cap to these categories, and referencing the estimated range of demand-reduction impacts in Table 4, the proposed TDM Plan is projected to reduce parking demand by between 15% and 40%.

Table 6 Total and By-Category Parking Reduction Estimates

TDM Measure Categories	Estimated Demand Reduction Impact	
	Low	High
Reduction from Parking Policy and Pricing	1%	1%
Reduction from Programs and Services	4%	24%
Reduction from Physical Features	7%	10%
Reduction from Promotional Resources and Activities	3%	5%
Total Reduction	15%	40%

Comparing to Impacts on Trip Reduction

The analysis above is focused on TDM impacts on parking demand generated by the project. Because the nature of the proposed property is 100% residential, reducing parking demand is achieved solely through TDM strategies that can be lined to reduced resident vehicle ownership rates. As such, our TDM analysis relied on several sources documenting the reduction effectiveness of the selected TDM measures, with limited reliance on CAPCOA as a source (which focuses most consistently on VMT-reduction measures).

While our analysis is focused on projecting reductions to the project's parking demand, the fact that the calculated reduction of 15 - 40% equates to 15 - 40% fewer vehicles maintained on the property suggests that the TDM Plan should reduce trips and VMT by at least 15%.

TDM Monitoring & Results

It is critical to establish a system to monitor the performance of TDM strategies. By observing how travel behavior changes over time, Alta Housing will have the tools to determine the proper time to implement TDM measures, gauge their effectiveness, and make updates accordingly. The property owner, or tenant, shall prepare an annual TDM report one-year following building Occupancy, and submit it to the City's TDM Coordinator as proven effectiveness of its TDM program. The City may assess the property owner a penalty for noncompliance with its TDM project conditions of approval. The TDM report, prepared by an onsite TDM Coordinator, will include a survey of commute travel methods taken by all building occupants. Driveway traffic counts shall also be conducted during the peak periods by an independent, approved consultant and paid for by the property owner or tenant. The driveway counts and resulting data shall be included in the TDM report to determine compliance with trip reduction goals and provided to the City's TDM Coordinator.

The following metrics will be considered for the annual analysis:

- Residential mode split (all trips and all modes, including differentiating between driving alone and carpool/rideshare)
- Parking utilization throughout the day
- Vehicle ownership at the residential development
- TDM program awareness
- Participation in individual TDM programs
- Cost-effectiveness of the TDM program
- Resident survey of travel behavior

If Terra Bella's parking is constrained and vehicle trips increase, Alta housing will submit a revised TDM Plan to the City that identifies new programs or strategies to meet requirements. Moreover, Alta Housing is prepared to pay a financial penalty for non-compliance.

3 APPENDIX: SUMMARY OF PARKING DATA FROM ALTA HOUSING SITES

The following properties were used as comparable housing developments, with their measures of parking demand, relative to the number of Rapid Rehousing units, used to inform the parking-demand ratio used for those units in the TDM Plan's parking analysis. All the units in both properties are Rapid Rehousing units, each with a population profile at both, in terms of developmental challenges, similar to that of the population who will occupy those units at Terra Bella.

Site 1: Eagle Park

This property consists of 67 units, including 62 studio apartments and five one-bedroom units.

Parking details:

- **Supply Ratio:** 0.4 spaces/ unit
 - The number of on-site parking spaces: 27 Spaces including 2 for disabled persons & 2 for electric vehicle charging.
- **Demand Ratio:** 0.4 spaces/ unit
 - Current Occupancy: 100%
 - Parking eligibility: Tenants are given one space per unit
 - The property sometimes maintains a waitlist for parking, depending on the needs of our current residents.

Site 2: Fair Oaks Commons

This property consists of 67 units, including 61 studio apartments and six one-bedroom units.

Parking details:

- **Supply Ratio:** 0.76 spaces/ unit
 - The number of on-site parking spaces: 51
- **Demand Ratio:** 0.5 spaces/unit
 - Current Occupancy: 69% (35 vehicles for 51 spaces)
 - Parking eligibility: Tenants are offered one space per unit

ATTACHMENT A: DTSC COMMENT LETTER



Yana Garcia
Secretary for
Environmental Protection



Department of Toxic Substances Control

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
Sacramento, California 95826-3200



Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

December 22, 2022

Mr. Edgar Maravilla
City of Mountain View
500 Castrol Street, PO Box 7540
Mountain View, CA 9403907540
Edgar.Maravilla@mountainview.gov

MITIGATED NEGATIVE DECLARATION FOR TERRA BELLA PUBLIC STORAGE &
ALTA HOUSING PROJECT – DATED NOVEMBER 2022 (STATE CLEARINGHOUSE
NUMBER: 2022110590)

Dear Mr. Maravilla:

The Department of Toxic Substances Control (DTSC) received a Mitigated Negative Declaration (MND) for the Terra Bella Public Storage & ALTA Housing Project (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

The MND references the listing compiled in accordance with California Government Code Section 65962.5, commonly known as the Cortese List. Not all sites impacted by hazardous waste or hazardous materials will be found on the Cortese List. DTSC recommends that the Hazards and Hazardous Materials section of the MND address actions to be taken for any sites impacted by hazardous waste or hazardous materials within the Project area, not just those found on the Cortese List. DTSC recommends consulting with other agencies that may provide oversight to hazardous waste facilities and sites in order to determine a comprehensive listing of all sites impacted by hazardous waste or hazardous materials within the Project area. DTSC hazardous waste facilities and sites with known or suspected contamination issues can be found on DTSC's [EnviroStor](#) data management system. The [EnviroStor Map](#) feature can be used to locate hazardous waste facilities and sites for a county, city, or a specific

address. A search within EnviroStor indicates that numerous hazardous waste facilities and sites are present within the Project's region.

DTSC recommends that the following issues be evaluated in the Hazards and Hazardous Materials section of the MND:

1. A State of California environmental regulatory agency such as DTSC, a Regional Water Quality Control Board (RWQCB), or a local agency that meets the requirements of [Health and Safety Code section 101480](#) should provide regulatory concurrence that project site is safe for construction and the proposed use.
2. The MND acknowledges the potential for historic or future activities on or near the Project site to result in the release of hazardous wastes/substances on the Project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The MND should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.
3. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil, DTSC recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the Project described in the MND.
4. If any projects initiated as part of the proposed Project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to DTSC's 2001 [Information Advisory Clean Imported Fill Material](#).
5. If any sites included as part of the proposed Project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the MND. DTSC

recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 [Interim Guidance for Sampling Agricultural Properties \(Third Revision\)](#).

DTSC appreciates the opportunity to comment on the MND. Should you choose DTSC to provide oversight for any environmental investigations, please visit DTSC's [Site Mitigation and Restoration Program](#) page to apply for lead agency oversight. Additional information regarding voluntary agreements with DTSC can be found at [DTSC's Brownfield website](#).

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,

A handwritten signature in blue ink that reads "Gavin McCreary". The signature is fluid and cursive, with the first name "Gavin" being more prominent.

Gavin McCreary, M.S.
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov



DRAFT MITIGATION MONITORING & REPORTING PROGRAM
Terra Bella Public Storage & ALTA Housing Project

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
Project-Specific Mitigation Measures				
Air Quality Impacts				
<p>Impact AIR-1: The project would not conflict with or obstruct implementation of the applicable air quality plan with implementation of mitigation. (Less than Significant Impact with Mitigation Incorporated)</p> <p>Impact AIR-3: The project would not expose sensitive receptors to substantial pollutant concentrations with implementation of mitigation. (Less than Significant Impact with Mitigation Incorporated)</p> <p>Impact GHG-1: The project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment with mitigation.</p>	<p>MM AIR-1.1: The project shall implement the below measures to control diesel particulate matter emissions during construction. This list of measures shall be incorporated into the approved building plan set.</p> <ol style="list-style-type: none"> 1. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for NO_x and PM, if feasible, otherwise, <ol style="list-style-type: none"> a. If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve a 60 percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination). Use of alternatively-fueled equipment with lower NO_x emissions that meet the NO_x and PM reduction requirements above. b. Use of electrical or non-diesel fueled equipment. 	Project applicant	<p>The mitigation measure shall be printed on all construction documents, contracts, and project plans.</p> <p>Oversight of implementation by City of Mountain View Chief Building Official and Fire Marshall (or their Designees).</p>	Prior to issuance of grading and demolition permits

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
<p>(Less than Significant Impact with Mitigation Incorporated)</p> <p>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 with mitigation. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>Alternatively,</p> <p>2. The applicant may develop another construction operations plan demonstrating that the construction equipment used on-site would achieve a reduction in construction diesel particulate matter emissions by 60 percent or greater. Elements of the plan could include a combination of some of the following measures:</p> <ul style="list-style-type: none"> • Implementation of No. 1 above to use Tier 4 or alternatively fueled equipment, • Installation of electric power lines during early construction phases to avoid use of diesel generators and compressors, • Use of electrically-powered equipment, • Forklifts and aerial lifts used for exterior and interior building construction shall be electric or propane/natural gas powered, • Change in construction build-out plans to lengthen phases, and • Implementation of different building techniques that result in less diesel equipment usage. <p>Such a construction operations plan shall be prepared by an air quality expert and approved by the City prior to construction.</p>			

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
<p>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 with implementation of mitigation. (Less than Significant Impact with Mitigation Incorporated)</p> <p>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) with mitigation of mitigation. (Less than Significant Impact with Mitigation Incorporated)</p> <p>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</p>	<p>MM CUL-2.1: Prior to ground-disturbing activities, a qualified archaeologist shall provide cultural resources training to all contractors and employees involved in trenching and excavation. The training shall inform participants how to recognize archaeological artifacts and deposits and discuss their obligations under the law and the project's standard conditions of approval.</p>	<p>Project applicant</p>	<p>The mitigation measure shall be printed on all construction documents, contracts, and project plans.</p> <p>Oversight of implementation by City of Mountain View Community Development Director (or the Director's Designees).</p>	<p>Prior to issuance of grading permits</p>

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1 with implementation of mitigation. (Less than Significant Impact with Mitigation Incorporated)				
Impact NOI-2: The project would not result in generation of excessive groundborne vibration or groundborne noise levels with implementation of mitigation. (Less than Significant Impact with Mitigation Incorporated)	MM NOI-2.1: The following measures shall be implemented during construction to reduce vibration levels to 0.5 in/sec PPV or less at adjacent commercial/industrial buildings south of the site. <ul style="list-style-type: none"> • Place operating equipment on the construction site as far as possible from vibration-sensitive receptors. • Use smaller vibratory rolling equipment, for example the Caterpillar model CP433E vibratory compactor, within 15 feet of the adjacent commercial/industrial buildings south of the site to reduce vibration levels to 0.5 in/sec PPV or less. • Select demolition methods not involving impact tools. • Avoid dropping heavy equipment, such as a clam shovel drop, within 15 feet of the adjacent commercial/industrial buildings south of the site, and use alternative methods for breaking up existing pavement, such as a pavement grinder. • Designate a person responsible for registering and investigating claims of excessive vibration. The contact 	Project applicant / Project contractor	<p>The mitigation measure shall be printed on all construction documents, contracts, and project plans.</p> <p>Oversight of implementation by City of Mountain View Community Development Director (or their Designees).</p>	Prior to issuance of demolition and grading permits

Environmental Impacts	Mitigation Measures	Responsibility for Compliance	Method of Compliance and Oversight of Implementation	Timing of Compliance
	information of such person shall be clearly posted on the construction site.			