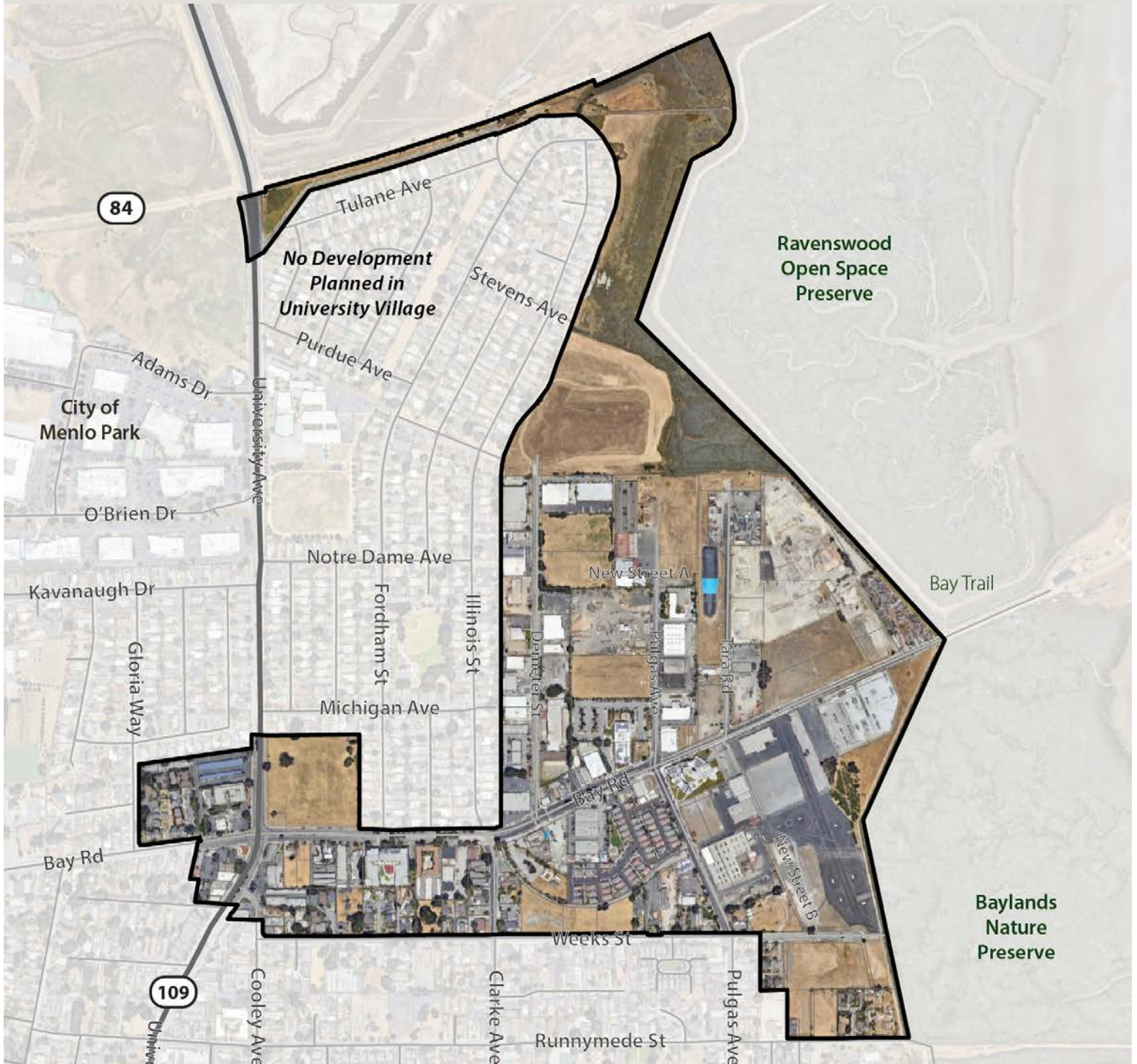


Draft Subsequent Environmental Impact Report
Ravenswood Business District/Four Corners Specific Plan Update

SCH#: 2022040352



Prepared by



July 2024



Preface

This document has been prepared by the City of East Palo Alto (the City) as the Lead Agency, in conformance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines (Title 14, California Code of Regulations §15000 et seq.). The purpose of this Draft Supplemental Environmental Impact Report (SEIR) is to inform decision makers and the general public of the environmental effects of the proposed project (update to the Ravenswood/4 Corners Transit Oriented Development Specific Plan).

The Final EIR for the Ravenswood/4 Corners Transit Oriented Development Specific Plan (hereinafter referred to as the “2013 Specific Plan”) was certified in 2013 (SCH #2011052006) and the corresponding Specific Plan was adopted in 2013. The 2013 Specific Plan allows up to an additional 1,235,850 square feet of office uses, 176,000 square feet of research and development (R&D) uses, 175,820 square feet of industrial uses, 112,400 square feet of retail uses, 36,000 square feet of civic/community uses, and 835 residential units (which would consist of 816 multi-family and 19 single-family units), compared to the existing conditions (Table 2.3-1 shows the allowed development under the 2013 Specific Plan).¹

Over the last several years, subsequent to the 2013 Specific Plan FEIR certification and 2013 Specific Plan approval, the City has received a number of preliminary development proposals, that cumulatively exceed the allowed development capacity in the 2013 Specific Plan . Accordingly, the City determined that consideration of an update to the 2013 Specific Plan would be in order to potentially allow for new development opportunities within the area. The proposed update to the Specific Plan (Specific Plan Update) would increase the total amount of development allowed within the Specific Plan area by increasing the maximum square footages for office, R&D/life science, light industrial, civic/community, tenant amenity (i.e., on-site recreational uses available to a project’s office/R&D employees), and number of residential units allowed in the Specific Plan area. The Specific Plan Update includes two development scenarios: Scenario 1 would allow up to an additional 1,802,950 square feet of office space, 988,400square feet of R&D space, 250,000 square feet of industrial space, 112,400 square feet of retail space, 129,700 square feet of civic/community space, 43,870 square feet of tenant amenity space, and 1,350 residential units. Scenario 2 would allow the same amount of retail and civic/community space as Scenario 1, 2,135,100 square feet of office space, 1,167,250 square feet of R&D space, 300,000 square feet of industrial space, 53,500 square feet of tenant amenity space, and 1,600 residential units (Table 2.3-1 shows the allowed development under the Specific Plan Update Scenarios 1 and 2) .

This Draft SEIR has been prepared as part of the supplemental environmental review process needed to evaluate the proposed changes to the project (increased square footage of allowable development) analyzed in the previously certified 2013 Ravenswood Specific Plan FEIR. In 2017, the City adopted a comprehensive update and revision to its 1999 General Plan (General Plan Update), which serves as a guide to achieve the City’s long-term land use and development goals through the

¹ Refer to Table 2.3-1 in Section 2.0 Project Information and Description in this Subsequent EIR.

year 2035. The General Plan Update EIR evaluated the environmental impacts of future planned development in the General Plan area, including future development under adopted 2013 Specific Plan.

Purpose of a Subsequent Environmental Impact Report

CEQA Guidelines Section 15162(a) state that when an EIR has been certified, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - d. Mitigation measures or alternatives which are considered different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The Specific Plan Update, Scenarios 1 or Scenario 2, would result in approximately twice the overall amount of development than the 2013 Specific Plan (evaluated in the 2013 Specific Plan EIR). Based on Section 15162 (a)(2) above, a Subsequent EIR is required for the Specific Plan Update since substantial changes which require major revisions to the 2013 Specific Plan due to new significant environmental effects for resource areas such as Section 3.3, Air Quality, Section 3.8 Greenhouse Gas Emissions, Section 3.12, Noise and Vibration, and Section 3.18 Utilities and Service Systems. The Specific Plan Update Scenarios 1 and 2, would result in in higher air pollutant emissions, more traffic

noise, and a higher demand for water and increased need for wastewater treatment compared to the 2013 Specific Plan. Therefore, a Subsequent EIR (SEIR) has been prepared for the Specific Plan Update. As described in further detail at the beginning of Section 3.0, Environmental Setting, Impacts, and Mitigation, the focus of this Draft SEIR is to evaluate the environmental impacts from the increase in proposed development under Specific Plan Update Scenarios 1 and 2 (compared to the 2013 Specific Plan), that were not disclosed in the 2013 Specific Plan EIR.

In accordance with CEQA, this Draft SEIR provides objective information regarding the environmental consequences of the modified project to the decision makers who will be considering and reviewing the project. The CEQA Guidelines contain the following general information of the role of an SEIR and its contents:

§15121(a) – Informational Document. An EIR is an informational document, which will inform public agency decision makers and the public, of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. The public agency shall consider the information in the EIR, along with other information that may be presented to the agency.

§15145 – Speculation. If, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact.

§15151 – Standards for Adequacy of an EIR. An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information that enables them to make a decision that intelligently considers environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good-faith effort at full disclosure.

Table of Contents

Section 1.0	Introduction and Purpose	1
1.1	Purpose of the Subsequent Environmental Impact Report	1
1.2	SEIR Process	1
1.3	Final EIR/Responses to Comments	2
Section 2.0	Project Information and Description	3
2.1	Project Location	3
2.2	Background Information	3
2.3	Project Description	8
2.4	Project Objectives	23
2.5	Uses of the SEIR	25
Section 3.0	Environmental Setting, Impacts, and Mitigation	26
3.1	Resource Areas with No Impacts Evaluated in the 2013 Ravenswood Specific Plan EIR	32
3.2	Aesthetics	34
3.3	Air Quality	55
3.4	Biological Resources	88
3.5	Cultural Resources	146
3.6	Energy	162
3.7	Geology and Soils	174
3.8	Greenhouse Gas Emissions	188
3.9	Hazards and Hazardous Materials	203
3.10	Hydrology and Water Quality	230
3.11	Land Use and Planning	248
3.12	Noise	256
3.13	Population and Housing	294
3.14	Public Services	306
3.15	Recreation	320
3.16	Transportation	324
3.17	Tribal Cultural Resources	394
3.18	Utilities and Service Systems	399
Section 4.0	Growth-Inducing Impacts	431
Section 5.0	Significant and Irreversible Environmental Changes	434

5.1	Use of Nonrenewable Resources and Irretrievable Commitments of Nonrenewable Resources	434
5.2	Commitment of Future Generations to Similar Uses	435
5.3	Irreversible Damage from Environmental Accidents	435
Section 6.0	Significant and Unavoidable Impacts.....	436
Section 7.0	Alternatives	437
7.1	Introduction	437
7.2	Factors in Selecting and Evaluating Alternatives.....	437
7.3	Selection of Alternatives.....	439
Section 8.0	References	455
Section 9.0	Lead Agency and Consultants	458
9.1	Lead Agency.....	458
9.2	Consultants	458
Section 10.0	Acronyms and Abbreviations	459

Figures

Figure 2.2-1:	Regional Map.....	4
Figure 2.2-2:	Vicinity Map	5
Figure 2.2 3:	Aerial Photograph and Surrounding Land Uses.....	6
Figure 2.2 4:	2013 Specific Plan Land Use Map	7
Figure 2.3-1:	Ravenswood/4 Corners TOD Specific Plan Update Land Use Map	11
Figure 2.3-2:	Maximum Building Heights.....	16
Figure 2.3-3:	Open Space Network Diagram	17
Figure 2.3-4:	Roadway Network and Improvements.....	20
Figure 2.3-5:	Loop Road Cross Sections	21
Figure 2.3-6:	Multi-use Path Cross Sections without Loop Road.....	22
Figure 3.2-1:	Photograph Locations.....	46
Figure 3.2-2:	Stepback Locations and View Corridors	50
Figure 3.3-1:	Nearby Sensitive Receptors and TAC Sources	60
Figure 3.4-1:	Existing Habitats in the Specific Plan Area	93
Figure 3.4-2:	Loop Road Configuration Impact Areas.....	114
Figure 3.9-1:	LUST Cases and Cleanup Program Sites.....	214
Figure 3.9-2:	Aircraft Traffic Pattern Zone	216

Figure 3.9-3: FAA FAR Part 77 Height Restrictions	226
Figure 3.10-1: FEMA Flood Hazard Area	236
Figure 3.10-2: Tsunami Hazard Area.....	238
Figure 3.12-1: Noise Measurement Locations.....	266
Figure 3.12-2: Existing Traffic Noise Contours.....	267
Figure 3.12-3: Airport Noise Contours.....	269
Figure 3.12-4: 2040 Scenario 2 with Loop Road Traffic Noise Contours	278
Figure 3.12-5: Scenario #2 (2040) With Loop Road Traffic Noise Contours	279
Figure 3.13-1: Multi-family Housing Units to be Replaced.....	304
Figure 3.16-1: Existing Bicycle Facilities.....	330
Figure 3.16-2: Existing Pedestrian Facilities.....	332
Figure 3.16-3: Existing Transit Facilities.....	333
Figure 3.16-4: Proposed Bicycle Network.....	337
Figure 3.16-5: Proposed Pedestrian Improvements.....	339
Figure 3.16-6: Proposed Transit Network.....	340
Figure 3.18-1: Fire Flow CIPs Scenarios 1 and 2.....	412
Figure 3.18-2: Sewer System Deficiencies and CIPs Scenario 1.....	415
Figure 3.18-3: Sewer System Deficiencies and CIPs Scenario 2.....	416

Photos

Photo 1: View of a single-family residence and open field looking north on Runnymede Street.....	38
Photo 2: View of a single-family residence and vacant lot looking north on Weeks Street.....	38
Photo 3: View of residential development south of Weeks Street outside of the Specific Plan area	39
Photo 4: R.E. Borrmann’s Steel Company building looking east on Pulgas Avenue.....	39
Photo 5: Newer townhouse development looking west on Pulgas Avenue	40
Photo 6: View of the single-family residences on Bay Road adjacent to the Specific Plan western boundary.....	40
Photo 7: Single-family residences on Bay Road looking east	41
Photo 8: Multi-family apartments on Bay Road Avenue	41
Photo 9: Commercial uses on Bay Road Avenue at the intersection of Clarke Avenue	42
Photo 10: View of warehouses and the EPACenter looking west on Bay Road	42
Photo 11: Industrial/warehouses, vacant lots, and transformers on Bay Road looking east towards the San Francisco Bay	43
Photo 12: View of the San Francisco Bay towards Cooley Landing Park.....	43

Photo 13: View of industrial uses on Pulgas Avenue north of Bay Road Avenue	44
Photo 14: View of industrial uses on Demeter Street north of Bay Road	44
Photo 15: View of the Shoreline at the intersection of Illinois Street and Purdue Avenue	45
Photo 16: View of the Bay Shore Trail and Union Pacific Railroad track.....	45

Tables

Table 2.2-1: Existing and Remaining Development Capacity within 2013 Specific Plan Area.....	8
Table 2.3-1: Development under Scenarios #1 and #2.....	12
Table 2.3-2: Specific Plan Update Additional Parks and Open Space Areas.....	15
Table 3.0-1: Cumulative Projects List.....	28
Table 3.0-2: Geographic Considerations in Cumulative Analysis.....	31
Table 3.3-1: Health Effects of Air Pollutants.....	55
Table 3.3-2: Specific Plan Consistency with BAAQMD Control Strategy Measures	63
Table 3.3-3 Specific Plan Update Traffic and Population Projections.....	66
Table 3.3-4: Operational Annual Emissions (Tons per Year).....	70
Table 3.3-5: Operational Daily Emissions (Pounds per Day).....	71
Table 3.3-6: Comparison of Project Emissions to Air Basin ROG, NO _x , and PM 10 Emissions (tons/day)	75
Table 3.3-7: Impacts from Traffic Sources to Off-Site Receptors	82
Table 3.3-8: Impacts from Plan and Cumulative Traffic Sources to Off-Site Receptors	86
Table 3.4-1: Special Status Animal Species that Occur or Potentially Occur in Specific Plan Area	96
Table 3.6-1: Estimated Annual Energy Use Under Ravenswood Specific Plan Update	168
Table 3.8-1 Annual Specific Plan Update GHG Emissions in Metric Tons.....	197
Table 3.8-2: Project Consistency with Applicable Climate Action Plan	201
Table 3.9-1 Summary of Reported On-Site Spill Incidents.....	211
Table 3.12-1: Groundborne Vibration Impact Criteria	257
Table 3.12-2: Exterior Noise Level Standards	263
Table 3.12-3: Interior Noise Level Standards.....	263
Table 3.12-4: Summary of Short-Term Noise Measurements.....	264
Table 3.12-5: Summary of Long-Term Noise Measurements.....	265
Table 3.12-6: Existing and Future Noise Levels Along Surrounding Roadways	276
Table 3.12-7: Vibration Source Levels for Construction Equipment	285
Table 3.13-1: Estimated Ravenswood Residents and Employees under Existing, Adopted Specific Plan, and Proposed Specific Plan Update Conditions.....	298

Table 3.13-2: Projected Growth Citywide.....	301
Table 3.14-1: Student Enrollment and Capacity in Specific Plan Area	314
Table 3.16-1: Existing Bus Service Near the Plan Area	331
Table 3.16-2: Existing Plus Specific Plan Intersection Levels of Service (Scenario 1)	342
Table 3.16-3: Existing Plus Specific Plan Intersection Levels of Service (Scenario 2)	346
Table 3.16-4: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 1)	350
Table 3.16-5: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 2)	355
Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions.....	361
Table 3.16-7: Summary of Improvements for Affected Intersections – Existing and Cumulative Plus Specific Plan Conditions.....	378
Table 3.16-8: Summary of Improvements for Affected Intersections – Cumulative Plus Specific Plan Conditions.....	383
Table 3.16-9: VMT Results	390
Table 3.18-1: Fire Flow CIPs Required	411
Table 3.18-2: Specific Plan Water Demand	420
Table 3.18-3: Wastewater Treatment Capacity (MGD)	423
Table 3.18-4: Cumulative Wastewater Treatment Capacity (MGD).....	428
Table 7.3-1: Development Summary of Project and Alternatives Selected	440
Table 7.3-2: Comparison of Impacts of the Specific Plan Update Scenarios to Project Alternatives	451

Appendices

- Appendix A: NOP and NOP Comments
- Appendix B: Air Quality/GHG Assessment
- Appendix C: Biological Resources Report
- Appendix D: Screening Level Environmental Site Assessment
- Appendix E: Noise and Vibration Assessment
- Appendix F: Transportation Analysis
- Appendix G: Utility Impact Study
- Appendix H: Water Supply Assessment

All appendices are incorporated herein by reference.

Summary

The City of East Palo Alto, as the Lead Agency, has prepared this Draft Subsequent Environmental Impact Report (SEIR) for the Ravenswood/4 Corners Transit-Oriented Development Specific Plan Update (Specific Plan Update) in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

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

Summary of the Project

The City adopted the existing Ravenswood Specific Plan in 2013 (2013 Specific Plan). This plan provides a policy and regulatory framework for reviewing development projects and public improvements in the Specific Plan area. The 2013 Specific Plan allows for development of up to 1.3 million square feet of office/R&D uses, 175,820 square feet of industrial uses, 112,400 square feet of retail uses, 36,000 square feet of civic/community uses, and 835 housing units (comprised of 816 multifamily and 19 single-family units). The 2013 Specific Plan assumed there would be a loop road with a multi-use path that would be located along the perimeter of the northern portion of University Village (immediately to the west of the Specific Plan area) and extend from the existing terminus of Demeter Street to connect with University Avenue. As currently envisioned, the loop road configuration would be a 76-foot right of way along the northern perimeter and 56-foot right of way along the western perimeter and would include two travel lanes, along with a 14-foot wide multi-use path and associated shoulders and buffers. The loop road would provide a direct route between the Specific Plan area and University Avenue, avoiding the need to use Bay Road. The loop road could also be used for emergency evacuation, in accordance with state requirements, and provide emergency vehicle access.

An update to the Specific Plan (Specific Plan Update) is proposed and would increase the total amount of development allowed within the Specific Plan area by increasing the maximum square footages for office, R&D/life science, light industrial, civic/community, and tenant amenity, and the total number of residential units allowed under the Specific Plan.

The Specific Plan Update would be implemented as one of two development scenarios, both of which are evaluated in the SEIR:

- Scenario 1 would consist of an additional 1,802,950 square feet of office space, 988,400 square feet of R&D space, 250,000 square feet of industrial space, 129,700 square feet of

civic space, 114,400 square feet of retail space, 43,870 square feet of tenant amenity space, and 1,350 residential units.

- Scenario 2 would consist of an additional 2,135,100 square feet of office space, 1,167,250 square feet of R&D space, 300,000 square feet of industrial space, 129,700 square feet of civic space, 114,400 square feet of retail space, 53,500 square feet of tenant amenity space, and 1,350 residential units.

In addition, the Specific Plan Update proposes a multi-use path along the northern and eastern perimeter of the Specific Plan area with an option to have a loop road and an option without the loop road. The multi-use path and loop road would continue to be located and function as discussed above under the 2013 Specific Plan. Refer to Section 2.0 of this Draft SEIR for a further description of the Specific Plan Update.

Summary of Significant Impacts, Mitigation Measures, and Proposed Specific Plan Update Policies

Table ES-1 contains a summary of the significant environmental impacts identified and discussed in the EIR, and the mitigation measures and Specific Plan Update Policies proposed to avoid or reduce those impacts. The project description and full discussion of the impacts, mitigation measures, and Specific Plan Update Policies can be found in Section 2.0 Project Information and Description, and Section 3.0 Environmental Setting, Impacts, and Mitigation of this EIR, respectively.

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies	
Impact	Mitigation Measure/Proposed Specific Plan Update Policy
Air Quality	
<p>Impact AIR-1: Future projects under the Specific Plan Update could result in construction criteria pollutant emissions above BAAQMD thresholds resulting in a cumulatively considerable contribution to a significant regional air quality impact. (Less than Significant Impact with Mitigation Measures Incorporated)</p>	<p>MM AIR-1.1: Construction criteria pollutant and TAC quantification shall be required for individual projects developed under the Specific Plan Update once construction equipment and phasing details are available through modeling to identify impacts and, if necessary, include measures to reduce emissions below the applicable BAAQMD construction thresholds. Reductions in emissions can be accomplished through, not limited to, the following:</p> <ul style="list-style-type: none"> • All construction equipment larger than 25 horsepower used at the future development sites for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for NOx and PM (PM10 and PM2.5), if feasible, otherwise, <ul style="list-style-type: none"> • If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 2 or 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 85-percent reduction in particulate matter exhaust in comparison to uncontrolled equipment; alternatively (or in combination). • Use of alternatively fueled equipment with lower NOx emissions that meet the NOx and PM reduction requirements above. • Special equipment that cannot meet the above requirements must be approved as exempt by the City after considering reasons for requesting an exemption. • Use electric equipment such as aerial lifts, air compressors, cement mortar mixers, concrete/industrial saws, cranes, and welders. • Diesel engines, whether for off road equipment or on road vehicles, shall not be left idling for more than two minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit. • Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment.

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies	
Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<ul style="list-style-type: none"> Utilize low volatile organic compound (VOC) (i.e., ROG emitting) coatings, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3; Architectural Coatings), for at least 80 percent of all residential and nonresidential interior paints and 80 percent of exterior paints. This includes all architectural coatings applied during both construction and reapplications throughout the project's operational lifetime. At least 80 percent of coatings applied must meet a "super-compliant" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used. Examples of "super-compliant" coatings are contained in the South Coast Air Quality Management District's website.
<p>Impact AIR-2: At buildout for development Scenarios 1 and 2, Specific Plan Update operational criteria emissions would exceed the BAAQMD project-level significance thresholds, for both average daily and total annual emissions, for ROG, NOx, and PM10 emissions, with or without the loop road, resulting in a cumulatively considerable contribution to a significant regional air quality impact. (Significant and Unavoidable Air Quality Impact)</p>	<p><u>Proposed Specific Plan Update 8-4.1: General TDM Requirements</u></p> <ul style="list-style-type: none"> <u>Standard 1: 40 percent Trip Reduction Requirement.</u> Per the City's TDM ordinance, the daily trips generated by new developments in the Plan Area are required to be 40 percent below trip estimates developed based on rates published in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition. <u>Standard 2: Combined Office and R&D Trip Rates.</u> The same average daily trip rate of 10.96 vehicle trips/1,000 square feet will be assumed for all uses in this employment category, since the Plan allows for flexibility in the mix of general office space, research and development space, and life science space, and because these uses have similar vehicle trip characteristics. <p><u>Proposed Specific Plan Update 8-4.3 Required TDM Elements</u></p> <ul style="list-style-type: none"> 1. Shuttle Program: The TMA shall fund and operate a shuttle program that connects employees and residents with nearby commercial, transit, and employment centers and provides long-haul service to housing and employment centers in other communities. <p><u>Proposed Specific Plan Update Policy</u></p> <ul style="list-style-type: none"> Policy LU-4.9: All diesel stand by emergency generators shall meet U.S. EPA Tier 4 engine standards. Permanent stationary emergency generators installed on-site shall

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies	
Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>have engines that meet or exceed U.S. EPA Tier 4 standards for particulate matter emissions, and shall obtain appropriate permits to operate from BAAQMD, as applicable.</p>
<p>Impact AIR-3: Fugitive dust emissions from future projects' construction diesel exhaust and equipment could result in significant health risk impacts to nearby sensitive receptors. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM AIR-3.1: The applicant shall require all construction contractors to implement the best construction measures recommended by BAQMD to reduce fugitive dust emissions. Emission reduction measures will include, at a minimum, the following measures:</p> <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day. • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 miles per hour (mph). • 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. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's phone number shall also be visible to ensure compliance with applicable regulations. <p>MM AIR-3.2: Future projects shall implement the following Enhanced Construction Best Management Practices, which include but would not be limited to the measures below. Future project applicants shall submit these measures to the City for approval.</p> <ul style="list-style-type: none"> • All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered at a frequency adequate to maintain

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.</p> <ul style="list-style-type: none"> • All haul trucks transporting soil, sand, or other loose material off-site shall be covered. • All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. • All vehicle speeds on unpaved roads shall be limited to 15 mph. • 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. • All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. • Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations. • All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries. • Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity. • Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. • The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time. • Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a 6 to 12-

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies	
Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.</p> <ul style="list-style-type: none"> • Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
<p>Impact AIR-4: The construction exhaust emissions from future projects could exceed BAAQMD thresholds and may result community health risks for sensitive receptors such as nearby residents. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM AIR-4.1: Applicants proposing development of projects within 1,000 feet of existing sensitive receptors as defined by the BAAQMD (e.g., residential uses, schools) shall prepare a site-specific construction health risk assessment (HRA). If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures for adjacent receptors will be less than BAAQMD project-level thresholds, then additional mitigation would not be required. However, if the HRA demonstrates that health risks would exceed BAAQMD project-level thresholds, additional feasible on- and off-site mitigation shall be identified to further reduce risks to the greatest extent practicable.</p> <p>Measures to avoid significant construction health risks impacts that could be included in projects, depending on the results of the project-specific HRAs could include:</p> <ul style="list-style-type: none"> • Use Tier 4 engines for all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities. • Use diesel trucks with 2010 or later compliant model year engines during construction. • Use renewable diesel during construction. • Use low-VOC coatings during construction. • Implement fugitive dust best management practices and if necessary, enhanced measures recommended by BAAQMD. • Use portable electrical equipment where commercially available and practicable to complete construction. Construction contractors shall utilize electrical grid power instead of diesel generators when (1) grid power is available at the construction site; (2) when construction of temporary power lines are not necessary in order to provide power to portions of the site distant from existing utility lines; (3) when use of portable extension lines is practicable given construction safety and operational limitations; and (4) when use of electrical grid power does not compromise construction schedules.

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies	
Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<ul style="list-style-type: none"> • Phase construction appropriate to lower the intensity of emissions at any one location with sensitive receptors. • Provide enhanced air filtration for sensitive receptors adversely affected by project emissions.
Biological Resources	
<p>Impact BIO-1: Disturbance or destruction of individual special-status plant species such as the Congdon’s tarplant, alkali milk vetch, and Point Reyes bird’s beak could occur during construction activities associated with future development projects, resulting in a significant impact to these species. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM BIO-1.1:Pre-Activity Surveys for Special-Status Plants. Prior to initial ground disturbance for Specific Plan-related projects in salt marsh, tidal slough, and grassland/ruderal habitats as depicted on Figure 3.4-1, a qualified plant ecologist shall conduct an appropriately timed survey for Congdon’s tarplant, Alkali milk vetch, and Point Reyes bird’s beak within the project footprint, and a 50-foot buffer around the project footprint. This buffer may be increased by the qualified plant ecologist depending on site-specific conditions and activities planned in the areas but must be at least 50 feet wide. Situations for which a greater buffer may be required include proximity to proposed activities expected to generate large volumes of dust, such as grading; potential for project activities to alter hydrology supporting habitat for the species; or proximity to proposed structures that may shade areas farther than 50 feet away.</p> <p>Surveys should be conducted in a year with near-average or above-average precipitation; surveys conducted in a year of below-average rainfall would be considered valid if examination of reference populations of the target species indicate that the species would be detectable if present. The purpose of the survey shall be to assess the presence or absence of special-status plants, including Congdon’s tarplant, alkali milk vetch, and Point Reyes bird’s beak.</p> <p>If the target species are not found in the impact area or the identified buffer, then no further mitigation shall be warranted. If the target species, or any other special-status plants are found in the impact area or identified buffers, MM BIO-1.2 and MM BIO-1.3 would be implemented.</p> <p>MM BIO-1.2: Special-Status Plant Avoidance Buffers. To the extent feasible, and in consultation with a qualified plant ecologist, the project proponent shall submit to the City a design for the proposed project, if feasible, to completely avoid impacts on all populations of special-status plants within the project footprints or within the identified buffers of the impact</p>

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>areas. Avoided special-status plant populations shall be protected by establishing and observing the identified buffer between plant populations and the impact area. All such populations located in the impact area or the identified buffer, and their associated designated avoidance areas, shall be clearly depicted on any construction plans. In addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around special-status plants to be avoided shall be marked in the field (e.g., with flagging, fencing, paint, or other means appropriate for the site in question). This marking shall be maintained intact and in good condition throughout project-related construction activities.</p> <p>If complete avoidance is not feasible and more than 10 percent of a population (by occupied area or individuals) would be impacted as determined by a qualified plant ecologist, MM BIO-1.3 shall be implemented.</p> <p>MM BIO-1.3: Preserve and Manage Mitigation Populations of Special-Status Plants. If avoidance of special-status plants is not feasible and more than 10 percent of the population would be impacted, compensatory mitigation shall be provided via the preservation, enhancement, and management of occupied habitat for the species, or the creation and management of a new population. To compensate for impacts on special-status plants, habitat occupied by the affected species shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant impacted, and at least one occupied acre preserved for each occupied acre affected), for any impact over the 10 percent significance threshold. Alternately, seed from the population to be impacted may be harvested and used either to expand an existing population (by a similar number/occupied area to compensate for impacts to special-status plants beyond the 10 percent significance threshold) or establish an entirely new population in suitable habitat.</p> <p>Areas proposed to be preserved as compensatory mitigation for impacts to special-status plants must contain verified extant populations of the species, or in the event that enhancement of existing populations or establishment of a new population is selected, the area must contain suitable habitat for the species as identified by a qualified plant ecologist. Mitigation areas shall be managed in perpetuity to encourage persistence and even expansion of this species. Mitigation lands cannot be located on land that is currently held publicly for resource</p>

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>protection unless substantial enhancement of habitat quality will be achieved by the mitigation activities. The mitigation habitat shall be of equal or greater habitat quality compared to the impacted areas, as determined by a qualified plant ecologist, in terms of soil features, extent of disturbance, vegetation structure, and dominant species composition, and shall contain at least as many individuals of the species as are impacted by project activities. The permanent protection and management of mitigation lands shall be ensured through an appropriate mechanism, such as a conservation easement or fee title purchase.</p> <p>A habitat mitigation and monitoring plan (HMMP) shall be developed by a qualified biologist or restoration ecologist and implemented for the mitigation lands on a project-by-project basis. Approval of the HMMP by the City shall be required before project impacts occur to the species.</p> <p>The HMMP shall include, at a minimum, the following information:</p> <ul style="list-style-type: none"> • A summary of habitat impacts and the proposed mitigation; • A description of the location and boundaries of the mitigation site and description of existing site conditions; • A description of measures to be undertaken to enhance (e.g., through focused management that may include removal of invasive species in adjacent suitable but currently unoccupied habitat) the mitigation site for the species; • A description of measures to transplant individual plants or seeds from the impact area to the mitigation site, if appropriate (which will be determined by a qualified plant or restoration ecologist); • Proposed management activities to maintain high-quality habitat conditions for the species; • A description of habitat and species monitoring measures on the mitigation site, including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc. At a minimum, performance criteria will include demonstration that any plant population fluctuations over the monitoring period of a minimum of 5 years for preserved populations and a minimum of 10 years for enhanced or established

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies	
Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>populations do not indicate a downward trajectory in terms of reduction in numbers and/or occupied area for the preserved mitigation population that can be attributed to management (i.e., that are not the result of local weather patterns, as determined by monitoring of a nearby reference population, or other factors unrelated to management); and</p> <ul style="list-style-type: none"> Contingency measures for mitigation elements that do not meet performance criteria.
<p>Impact BIO-2: Future projects' construction activities could result in a significant impact to the salt marsh harvest mouse and salt marsh wandering shrew populations and their habitat.</p>	<p>MM BIO-2.1: Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Minimization Measure. Any development projects, including the loop road or multi-use path, within 100 feet of an area identified as salt marsh, open water, or tidal slough shall be subject to a habitat assessment prepared by a qualified biologist. All habitats identified by the biologist as suitable habitat for the salt marsh harvest mouse or salt marsh wandering shrew shall be avoided for development and preserved in their existing state, to the extent feasible. If avoidance of salt marsh habitats is infeasible, the following measures shall be implemented:</p> <ul style="list-style-type: none"> Before any construction activities begin, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include descriptions of the salt marsh harvest mouse and salt marsh wandering shrew, their habitats, the laws protecting them, the general measures that are being implemented to conserve the species as they relate to the project, and the boundaries within which the project may be accomplished. To avoid the loss of individual harvest mice or shrews from any excavation, fill, or construction activities in suitable habitat, vegetation removal will be limited to the minimum amount necessary to permit the activity to occur. Wherever feasible, sufficient suitable habitat, as determined by a qualified biologist, will remain adjacent to the activity area to provide refugia for displaced individuals. Within areas where vegetation potentially supporting salt marsh harvest mice or salt marsh wandering shrews will be impacted, vegetation and debris that could provide cover for mice will be removed using only hand tools (which may include motorized equipment such as line trimmers if the vegetation removed is inspected by a qualified biologist and does not contain any salt marsh harvest mice or salt marsh wandering

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>shrews) at least one week prior to the commencement of construction activities. Vegetation removal will occur under the supervision of a qualified biologist. This vegetation will be removed on a progressive basis, such that the advancing front of vegetation removal moves toward vegetation that would not be disturbed. If necessary, temporary shelter consisting of dead vegetation may be positioned to provide escape routes to suitable habitat. A qualified biologist will monitor the vegetation removal and make specific recommendations with respect to the rate of vegetation removal (to ensure that any harvest mice or shrews present are able to escape to cover that will not be impacted), and whether vegetation needs to remain in a certain area temporarily to facilitate dispersal of mice into habitat outside the impact area.</p> <ul style="list-style-type: none"> • All cut vegetation, except cut vegetation left in place as escape cover, will be removed daily from vegetation removal areas to prevent it from being used as refugia by salt marsh harvest mice. • If a salt marsh harvest mouse or salt marsh wandering shrew, or an animal that may be a salt marsh harvest mouse or salt marsh wandering shrew, is detected during vegetation removal or other project activities, all work that could impact the individual will cease until the animal has moved out of the impact area on its own. A qualified biologist will monitor the animal to ensure that it disperses out of the impact area. If the animal will not move on its own, the biologist will confer with the US Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) to identify appropriate measures to avoid impacts to the animal. No salt marsh harvest mice or salt marsh wandering shrews will be handled (even for relocation) without prior approval from the USFWS and CDFW. • Following the hand-removal of vegetation, exclusion fencing will be erected as needed between construction areas and harvest mouse/shrew habitat that is to remain unimpacted to define and isolate protected harvest mouse/shrew habitat. This fencing will consist of material that cannot be climbed by harvest mice, buried at least 4 inches below the ground's surface, and with at least 1 ft (but no more than 4 ft) above the ground. All supports for the fencing will be placed on the inside of the work area. A minimum 2-ft buffer will be maintained free of vegetation around the outside of the exclusion fencing.

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>The fencing will be inspected daily during construction, and any necessary repairs will be made within 24 hours of when they are found. If any breaks in the fencing are found, the qualified biologist will inspect the work area for salt marsh harvest mice and salt marsh wandering shrews.</p> <ul style="list-style-type: none"> • During construction, a qualified biologist will check underneath vehicles and equipment for salt marsh harvest mice and salt marsh wandering shrews before such equipment is moved, unless the equipment is surrounded by harvest mouse exclusion fencing. • No animals (e.g., dogs or cats) will be brought to the project site by project personnel to avoid harassment, killing, or injuring of wildlife. • The project site will be maintained trash-free, and food refuse will be contained in secure bins and removed daily during construction, to avoid attracting nuisance animals that may then prey on salt marsh harvest mice. • Nighttime work will be avoided if feasible. If avoidance of night work is infeasible, all project lighting will be shielded and directed away from tidal marshes. • Construction activities within 10 feet of the high tide line shall not occur within two hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge and adjusted to the timing of local high tides), when the marsh plan is inundated, because protective cover for these species is limited and activities could prevent them from reaching available cover. • In either configuration, with or without the loop road, salt marsh and upland grassland habitats, which may be used for foraging and high-tide refugia by both species, would be located immediately adjacent to the new road and pathways. Therefore, dense upland ecotone/transitional salt marsh vegetation shall be planted along the immediate edge of the shoulder of the loop road or multi-use path adjacent to salt marsh and upland grassland habitats to provide high-tide refugia for both species. • In order to provide a barrier between transitional salt marsh and upland grassland habitats and the newly constructed loop road or multi-use path, and to discourage loop road/multi-use path users from entering potential habitats used by salt marsh harvest mice and salt marsh wandering shrews, a low (less than three feet tall) symbolic fence or wall with educational signs prohibiting entry shall be placed along the edge of

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>the developed area, between the developed area and the upland ecotone to be added as described above.</p> <p>MM BIO-2.2: Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Compensatory Mitigation. Compensatory mitigation for individual project impacts, including the loop road or multi-use path, on the salt marsh harvest mouse and salt marsh wandering shrew habitat will be provided via the purchase of credits from a conservation bank or mitigation bank that has restored suitable salt marsh habitat for these species; project-specific mitigation via the preservation and management of suitable habitat for this species; or some combination of the two approaches. If no USFWS/CDFW-approved conservation banks specifically for these mammals are available, credits in a tidal wetland mitigation bank that provides suitable habitat for, and is expected to be occupied by, these species would be adequate. Compensatory mitigation shall be provided at a minimum ratio of 2:1 (mitigation to impact) on an acreage basis if project-specific mitigation is performed or 1:1 if credits are purchased from a mitigation or conservation bank. Compensatory mitigation shall be provided for any potentially suitable habitat for these species that is permanently lost to development or that is present within 50 feet of any new or higher-intensity lighting installed by Specific Plan activities.</p> <p>If project-specific mitigation is provided as compensatory mitigation, the applicant will engage a qualified plant or restoration ecologist to prepare an HMMP describing the measures that will be taken to create, restore, or enhance habitat for the salt marsh harvest mouse and salt marsh wandering shrew and monitor the effects of the mitigation on these species. The HMMP will include, at a minimum, the following:</p> <ul style="list-style-type: none"> • A summary of project impacts on the species and the proposed mitigation of these impacts; • A description of the location and boundaries of the mitigation site and description of existing site conditions; • A description of measures to be undertaken to enhance (e.g., through focused management) the mitigation site for the species; • Proposed management activities (e.g., management of invasive plants) to maintain high-quality habitat conditions for the species;

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	<ul style="list-style-type: none"> • A description of community and species monitoring measures on the mitigation site, including specific, objective goals and objectives, performance indicators, success criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule. At a minimum, success criteria shall include demonstration that habitat conditions are suitable for occupancy by the salt marsh harvest mouse and salt marsh wandering shrew, and that either a) at least one of these species is present, or b) the site is connected to pre-existing, suitable, and presumably occupied habitat so that colonization of the mitigation site is determined to be likely by a qualified biologist. Monitoring will occur until these criteria are achieved but for no less than five years. • A description of the HMMP's adaptive component, including potential contingency measures for mitigation elements that do not meet performance criteria; and • A description of the funding mechanism to ensure the long-term maintenance and monitoring of the mitigation lands. <p>The HMMP shall be prepared by a qualified plant or restoration ecologist. Approval of the HMMP by the City shall be required before project impacts occur to the species.</p> <p>MM BIO-2.3: Prohibit Rodenticides. The use of rodenticides shall not be allowed within 100 feet of any salt marsh habitat.</p> <p>MM BIO-2.4: Restrict Pesticide Use in and near Salt Marsh Habitats. All pesticides used within 100 feet of salt marsh habitats must be utilized in accordance with the manufacturer's directions. No pesticides shall be applied within tidal marsh habitats as part of Specific Plan Update activities. Any pesticides used in areas where they could be washed, or could drift via wind, into tidal marsh habitat must be approved by the City of East Palo Alto for use in aquatic habitats.</p> <p>MM BIO-2.5: Raptor Perch Deterrents. Within 300 feet of any salt marsh habitats within or adjacent to the Specific Plan area, raptor perch deterrents will be placed on any edges of building roofs, terraces, or other structures (e.g., light poles or electrical towers) that are high enough to overlook the marsh and that have an unobstructed view to the marsh. The specific type of</p>

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Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>perch deterrent(s) used shall be approved by a qualified biologist and the City.</p> <p>MM BIO-2.6: Landscape Design. To avoid perches for avian predators and dense woody vegetation that could hide mammalian predators of salt marsh harvest mouse and salt marsh wandering shrew, new landscaping, as well as the size, location and species of any new or replacement public street trees, within 300 feet of salt marsh habitats shall be reviewed by a qualified biologist familiar with these species’ ecology prior to City approval to ensure that no new landscaping poses a threat to these two mammals. Intervening structures, topography, and other features that may block the view of the tidal marsh from avian predators using proposed trees shall be considered by the biologist.</p> <p>MM BIO-2.7: Restrictions on Outdoor Cat Feeding Stations and Off-Leash Dogs. Future developments shall prohibit outdoor cat feeding stations within 300 feet of salt marsh habitats. Future developments shall also prohibit off-leash dogs within 100 feet of salt marsh habitats unless within fenced areas.</p> <p>MM BIO-2.8: Food Waste Management. The following measures shall be implemented by future developments within 100 feet of salt marsh habitats to reduce impacts on salt marsh harvest mice and salt marsh wandering shrews due to the attraction of nuisance predators:</p> <ul style="list-style-type: none"> • Any bins used for food waste shall include lids that seal tightly to prevent access by animals and incorporate a mechanism to prevent them from being inadvertently left open when not in active use. • Outdoor trash and recycling receptacles shall be emptied frequently enough that cans do not fill up and allow food waste to spill out. • Litter on the site shall be picked up daily, and no food trash is left on-site overnight. • Signs shall be placed on trash and recycling receptacles reminding users to close the lids so that they will not be inadvertently left open. • Residents and visitors shall be prohibited from feeding feral or wild mammals. • Educational signs shall be posted explaining the importance and sensitivity of nearby marsh habitats,

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>prohibiting feeding wildlife and feral animals on the property, prohibiting off-leash dogs, and advising residents and visitors to dispose of food waste in outdoor areas appropriately to avoid attracting and subsidizing nuisance species.</p>
<p>Impact BIO-3: Future project construction could result in the loss of California black rail and/or California Ridgway’s rail populations and their habitats, which would constitute a significant impact. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM BIO-3.1: Seasonal Avoidance or Protocol-level Surveys and Buffers around Calling Centers. To avoid causing the abandonment of an active California Ridgway’s rail or California black rail nest, independent project activities within 700 feet of salt marsh habitats within or adjacent to the Specific Plan area will be avoided during the rail breeding season (from February 1 through August 31) unless 1) a qualified biologist determines that a reduced buffer (but no less than 200 feet) is appropriate due to intervening development or obstructions, the level of disturbance by the activity (in terms of noise and equipment), or other factors that would reduce the potential for the activity to disturb nesting rails, or 2) protocol-level surveys are conducted by a qualified biologist to determine rail locations and territories during the year in which construction is initiated. Protocol-level surveys are typically initiated in late January, so proactive planning is necessary to ensure that such surveys are conducted according to the protocol during the year in which construction occurs.</p> <p>If breeding rails are determined to be present, construction activities shall not occur within 700 feet of an identified California Ridgway’s rail calling center or within 300 feet of a California black rail calling center during the breeding season.</p>
<p>Impact BIO-4: Future projects’ construction activities that occur in or near the tidal salt marsh, open water, or tidal slough habitats, could result in significant impacts to special-status species fish. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM BIO-4.1: Worker Environmental Awareness Training. Personnel working on projects within or adjacent to salt marsh, open water, or tidal slough habitats shall be trained by a qualified biologist in the importance of the marine environment to special-status fish and other aquatic animals and plants, and the environmental protection measures put in place to prevent impacts to these species, their habitats, and essential fish habitat (EFH). The training session shall include the information described in MM BIO-1.4, as well as the following:</p> <ul style="list-style-type: none"> • A review of the special-status fish, other aquatic animals and plants, and sensitive habitats that could be found in or near the work areas; • Measures to avoid and minimize adverse effects to special-status fish, other aquatic animals and plants, their habitats, and EFH; and

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	<ul style="list-style-type: none"> • A review of all conditions and requirements of environmental permits, reports, and plans (e.g., USACE permits). <p>MM BIO-4.2: Water Quality Protection. During construction, the project applicant shall employ standard construction best management practices (BMPs) to protect water quality. These BMPs may include but are not limited to the following:</p> <ul style="list-style-type: none"> • Sediment mitigation measures shall be in place prior to the onset of project construction and shall be monitored and maintained until construction activities have been completed. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Stockpiles that are to remain on the site throughout the wet season shall be protected to prevent erosion. • No litter, debris, or sediment shall be dumped into storm drains. Daily trash and debris removal shall occur at the site. • All litter and construction debris shall be disposed of off-site in accordance with state and local regulations. All trash and debris within the work area shall be placed in containers with secure lids before the end of work each day in order to reduce the likelihood of predators being attracted to the site by discarded food wrappers and other rubbish that may be left on-site. If containers meeting these criteria are not available, all rubbish shall be removed from the project site at the end of each work day. • Equipment staging and parking of vehicles shall occur on established access roads and flat surfaces. • The integrity and effectiveness of construction fencing and erosion control measures shall be inspected on a daily basis. Corrective actions and repairs shall be carried out immediately for fence breaches and ineffective BMPs. • Fueling, washing, and maintenance of vehicles shall occur in developed habitat, away from all tidal salt marsh, open water, and tidal slough habitats. Equipment shall be regularly maintained to avoid fuel leaks. Any leaks shall be captured in containers until equipment is moved to a repair location. Hazardous materials shall be stored only within the developed habitat. Containment and cleanup plans shall be prepared and put in place for immediate cleanup of fluid or hazardous materials spills.

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	<ul style="list-style-type: none"> • Absorbent materials designated for spill containment and clean-up activities shall be available on project sites for use in an accidental spill. • At no time shall sediment-laden water be allowed to enter the salt marsh, open water, or tidal slough habitats.
<p>Impact BIO-5: Future projects' construction activities that occur in proximity to active burrows could result in the injury or loss of burrowing owls, resulting in a significant impact to these species. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM BIO-5.1: Burrowing Owl Minimization Measures. To reduce impacts on burrowing owls, the following shall be implemented:</p> <ul style="list-style-type: none"> • Preconstruction Surveys. Preconstruction surveys for burrowing owls shall be conducted prior to the initiation of construction activities within suitable burrowing owl roosting or nesting habitat (i.e., grassland or ruderal habitats), or within 250 feet of this habitat. During the initial site visit, a qualified biologist shall survey the entire project site and (to the extent that access allows) areas within 250 feet by walking transects with centerlines no more than 50 feet apart and ensure complete visual coverage and looking for suitable burrows that could be used by burrowing owls. If no suitable burrows are present, no additional surveys are required. <p>If suitable burrows are determined to be present within 250 feet of project impact areas, a qualified biologist shall conduct a second survey to determine whether owls are present in areas where they could be affected by proposed activities. The survey shall last a minimum of three hours, beginning one hour before sunrise and continuing until two hours after sunrise, or beginning two hours before sunset and continuing until one hour after sunset. The first survey may occur up to 14 days prior to the start of construction activities in any given area, and the second survey shall be conducted within two days prior to the start of construction activities.</p> <ul style="list-style-type: none"> • Implement Buffer Zones for Burrowing Owls. If burrowing owls are detected during the pre-activity survey, a 165-foot buffer, within which no newly initiated construction-related activities should occur, will be maintained between construction activities and occupied burrows to the extent feasible during the nonbreeding season (September 1 through January 31). This buffer may be reduced if a qualified biologist determines that work will not result in damage to the burrow(s) being used by the owls. Though the species is

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>highly unlikely to breed in the Specific Plan area, owls present between February 1 and August 31 will be assumed to be nesting, and a 250-foot protected area will remain in effect until August 31, or until the burrow is no longer occupied, whichever occurs first.</p> <ul style="list-style-type: none"> • Passive Relocation. No burrowing owls shall be relocated from burrows during the breeding season (February 1 through August 31). If, during the nonbreeding season (September 1 through January 31), it is infeasible to maintain a buffer around occupied burrow(s) large enough to ensure that the burrow(s) will not be physically disturbed (thus risking injury or mortality of the owl), the owl may be passively relocated from the occupied burrow(s) using one-way doors. Passive relocation shall be performed only by a qualified biologist. One-way doors must be in place for a minimum of 48 hours, during dry conditions, to ensure that owls have left the burrow before the burrow is impacted.
<p>Impact BIO-6: Future project activities in the northwest corner of the Specific Plan area occur within 600 feet of active nests, construction activities could result in the abandonment of nests, and possibly the loss of eggs or young western snowy plover, resulting in a significant impact to these species. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM BIO-6.1: Seasonal Avoidance and Buffers. No Specific Plan Update construction activities shall be performed within 600 feet of an active snowy plover nest during the snowy plover breeding season, March 1 through September 14. Prior to the initiation of any activities within 300 feet of the southwest corner of Pond SF 2, north of the Specific Plan area during the period March 1 through September 14, a qualified biologist shall conduct a survey for suitable habitat for nesting snowy plovers, and for active nests. If no suitable nesting habitat or active nests are present within 600 feet of the proposed activity, construction may proceed. If an active nest is present, no construction activities shall commence within 600 feet of the nest until the nest is no longer active.</p>
<p>Impact BIO-7: Construction disturbance during the bird nesting season (typically February 1 through August 31) could result in the incidental loss of eggs or nestlings of native birds, either directly through the destruction or disturbance of active nests or indirectly by causing enough disturbance to result adult birds abandoning their nests. (Less than</p>	<p>MM BIO-7.1: To minimize impacts on nesting birds, the following shall be implemented:</p> <ul style="list-style-type: none"> • Seasonal Avoidance and Buffers. To the extent feasible, vegetation removal, demolition, and initiation of grading and other construction activities should be scheduled to avoid the nesting season. If such activities take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game code will be avoided. The nesting

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
<p>Significant Impact with Mitigation Incorporated)</p>	<p>season for most birds in San Mateo County extends from February 1 through August 31.</p> <ul style="list-style-type: none"> • Preconstruction/Pre-disturbance Surveys. If it is not possible to schedule vegetation removal, demolition, and construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no nests of migratory birds will be disturbed during project implementation. These surveys shall be conducted no more than seven days prior to the initiation of tree removal, demolition, ground disturbance, or construction activities for each construction phase. During this survey, the biologist shall inspect all potential nesting habitats (e.g., trees, shrubs, buildings, electrical towers, and the ground) in and immediately adjacent to the impact areas for migratory bird nests. • Buffers. If an active nest is found within areas that would be disturbed by project activities, the qualified biologist shall determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species, though buffers may be reduced by the biologist based on intervening structures or vegetation, the magnitude of disturbance produced by the activity, and the level of human activity to which the birds are already habituated), to ensure that no active nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation. • Inhibition of Nesting. If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1) to reduce the potential for establishment of nests in areas to be disturbed.
<p>Impact BIO-8: Increased lighting from future development adjacent to sensitive habitats could result in a significant impact on wildlife such</p>	<p>MM BIO-8.1: Exterior lighting shall be minimized (e.g., by turning lights off) in accordance with recommendations from the International Dark-Sky Association from midnight until dawn, at a minimum, except as needed for safety and City code</p>

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
<p>as indirectly increasing predation and bird collisions. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>compliance. Exterior lighting within the Specific Plan area shall be shielded to block illumination from shining upward or outward into the sensitive habitats (i.e., salt marshes) within and adjacent to the Specific Plan area. Uplighting shall be avoided.</p> <p>MM BIO-8.2: Spillage of lighting from building interiors shall be minimized using occupancy sensors, dimmers, blinds, or other mechanisms from midnight until dawn, at a minimum, during migration seasons (February through May and August through November).</p>
<p>Impact BIO-9: Construction and operation of future development would result in soil disturbance adjacent to sensitive salt marsh and tidal slough habitats which could result in the spread of non-native plant species in wetland areas in and adjacent to the Specific Plan area.</p>	<p>MM BIO-9.1: Implement Invasive Weed Best Management Practices (BMPs). The invasion and/or spread of noxious weeds will be avoided by the use of the following invasive weed BMPs:</p> <ul style="list-style-type: none"> • Prohibit the use of moderate or highly invasive and/or noxious weed (as defined by California Department of Food and Agriculture) for landscaping. • During project construction, all seeds and straw materials used in the Specific Plan area shall be weed-free rice (or similar material acceptable to the City) straw, and all gravel and fill material will be certified weed-free to the satisfaction of the City. Any deviation from this will be approved by the City. • During project construction within, or within 100 feet of, tidal salt marsh, open water, or tidal slough habitats, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) before and after entering the proposed project footprint. Vehicles will be cleaned at existing construction yards or car washes. • Following construction of project, a standard erosion control seed mix (acceptable to the City) from a local source, and free of invasive species, will be planted within the temporary impact zones on any disturbed ground that will not be under hardscape, landscaped, or maintained. This will minimize the potential for the germination of the majority of seeds from nonnative, invasive plant species.
<p>Impact BIO-10: Future projects adjacent to the salt marsh habitat could result in a significant impact to jurisdictional waters of the state or U.S. habitat. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM BIO-10.1: Jurisdictional Waters Avoidance and Minimization Measures. The following measures will be implemented to avoid and minimize impacts to jurisdictional waters to less than significant levels.</p> <ul style="list-style-type: none"> • During or prior to project design, a wetland delineation of the project area shall be conducted to determine

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>precise boundaries of jurisdictional wetlands and other waters. Impacts to any jurisdictional habitats shall be avoided to the extent practicable. If wetlands or other waters under state or federal jurisdiction occur in the construction areas and involve the placement of fill or dredged materials or other alteration, the necessary and appropriate permits and approvals from responsible resource agencies shall be secured. As appropriate for the type of permit to be considered, options that avoid, minimize, or mitigate potential impacts on jurisdictional wetlands shall be evaluated. Conditions of approval attached to the permits shall be followed.</p> <ul style="list-style-type: none"> • Sensitive habitat areas including wetlands adjacent to, but outside of, the construction area shall be demarcated with orange construction fencing to exclude workers, vehicles, and equipment. • The locations of habitats to be avoided shall be identified in the contract documents (plans and specifications) as “Sensitive Biological Resources – Do Not Disturb.” • Jack-and-bore or other trenchless methods shall be used as feasible to reduce the need for surface construction within identified sensitive habitats and exclusion zones, and construction activities and vehicles shall be restricted to a specified right-of-way. • Temporarily impacted wetlands and other waters shall be restored in place based on a restoration plan prepared by a qualified biologist and approved by the City. • Where possible, trenches shall be worked from only one side to minimize impacts on adjacent habitat. • Watering of exposed earth shall be conducted consistent with construction BMPs to minimize dust production. • Trench lines shall be reseeded with native vegetation appropriate for the affected habitat type, and/or a double-trenching technique shall be used through sensitive habitats to help preserve the existing seedbank. <p>MM BIO-10.2: Jurisdictional Waters Compensatory Mitigation. If impacts to jurisdictional wetlands or other waters cannot be avoided, compensatory mitigation shall be provided as follows (or as otherwise required by conditions of applicable resource</p>

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>agency permits) to reduce impacts to less than significant impacts.</p> <ul style="list-style-type: none"> • Compensatory mitigation shall be provided via the purchase of credits from a wetland mitigation bank; project-specific mitigation via the creation or restoration of the same general type of wetlands/waters impacted; or some combination of the two approaches. Compensatory mitigation shall be provided at a minimum ratio of 2:1 (mitigation: impact) on an acreage basis if project-specific mitigation is performed or 1:1 if credits are purchased from a mitigation bank. Mitigation performed for loss of salt marsh harvest mouse and salt marsh wandering shrew habitat, as described in MM BIO-5, may be adequate compensation for impacts to jurisdictional waters if performed via purchase of credits in a wetland mitigation bank and/or creation of suitable wetlands as described in the following bullet point. • If project-specific mitigation is provided as compensatory mitigation, a qualified biologist will prepare an HMMP describing the measures that will be taken to create, restore, or enhance appropriate habitats and to monitor mitigation success. The HMMP will include, at a minimum, the following: <ul style="list-style-type: none"> • A summary of project impacts on jurisdictional habitats and the proposed mitigation of these impacts; • A description of the location and boundaries of the mitigation site and a description of existing mitigation site conditions; • A description of measures to be undertaken, if necessary, to create, restore, or enhance appropriate habitats; • Proposed management activities, such as management of invasive plants, to maintain high-quality habitat conditions; • A description of community monitoring measures on the mitigation site, including specific, objective goals and objectives, performance indicators, success criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule. At a minimum, success criteria will include demonstration of at least 75 percent cover by native wetland plants within the mitigation

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies	
Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>area. Monitoring shall occur until these criteria are achieved but for no less than five years;</p> <ul style="list-style-type: none"> • A description of the HMMP’s adaptive component, including potential contingency measures for mitigation elements that do not meet performance criteria; and • A description of the funding mechanism to ensure the long-term maintenance and monitoring of the mitigation lands. <p>The HMMP will be approved by the City and any agencies involved in issuing permits for the specific project in question (e.g., USACE and RWQCB) prior to the initiation of impacts to jurisdictional wetlands or other waters.</p>
Cultural Resources	
<p>Impact CUL-1: Future projects could indirectly or directly impact known and unknown historic buildings and structures by removing historic buildings and structures, or altering the setting for historic properties. (Less than Significant Impact)</p>	<p>Policy LU-7.1: Ensure that City, State, and Federal historic preservation laws, regulations, and codes are implemented, including State laws related to archaeological resources, to ensure the adequate protection of historic and prehistoric resources.</p> <p>Policy LU-7.2: Require preparation of a project-specific Historic Architectural Resources Assessment (HARA) by a professional Architectural Historian for any buildings or structures that are over 45 years in age that could be affected by a project. The HARA will provide background context, identify any architectural resources including standing buildings and structures, and provide an evaluation using the criteria of the California Register of Historic Resources. Follow the HARA recommendations to avoid and minimize damage to these resources. These may include additional research, measured drawings and photographic recordation with deposition of any research materials with a historical society or repository.</p>
<p>Impact CUL-2: Future projects could discover unknown archaeological resources during construction. If Specific Plan Update Policies to protect these resources during construction are not implemented, future projects would have a significant impact on these resources. (Less than Significant Impact)</p>	<p><u>Proposed Specific Plan Update Cultural Resources Policies</u></p> <p>Policy LU-7.3: Future project applicants shall engage a qualified archaeologist to complete a site-specific review and evaluation of a development site within the Specific Plan area as part of the discretionary permitting process in regard to archaeological resources. The identification, review, and evaluation shall be completed by qualified professional archaeologists. The results shall be presented in a Cultural Resources Assessment Report (CRAR) or similar document format that provides the results of</p>

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>the identification and evaluation effort with site specific mitigation recommendations. The CRAR shall be reviewed and approved by the City as part of the discretionary permitting process.</p> <p>Policy LU-7.4: Future project applicants shall implement site-specific mitigation measures or recommendations presented in the CRAR as determined necessary by the City. Mitigation or recommendations could include:</p> <ul style="list-style-type: none"> • Completion of an archaeological testing program to determine the potential for the presence/absence of subsurface cultural deposits and develop further recommendations for cultural resource avoidance/preservation; • Implementation of cultural resources monitoring during subsurface construction for project sites within or adjacent to a recorded cultural resource; and • Recordation of any significant built environment resources including but not limited to systematic photographic recordation and architectural measured drawings as well as additional detailed archival research. <p>Policy LU-7.5: Future project applicants, in consultation with the City, shall contact the Native American Heritage Commission (NAHC) for environmental reviews during the development permitting process to determine if resources listed on the Sacred Lands File are within or adjacent to a project specific site. Outreach to members of the Native American community identified by the NAHC shall be undertaken to determine if they can provide information on tribal cultural resources within or adjacent to the project site.</p> <p>Policy LU-7.6: Future project applicants shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources and tribal cultural resources including prehistoric Native American burials.</p> <p>Policy LU-7.7: Future project applicants shall retain a Professional Archaeologist (PA) on an “on-call” basis during ground disturbing construction to review, identify, and evaluate cultural resources that may be inadvertently exposed during construction. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s)</p>

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>and/or unique archaeological resources or tribal cultural resources under CEQA.</p> <p>Policy LU-7.8: Prior to ground disturbing activities, a PA shall complete in-person Worker Awareness Training (WAT) for cultural resources. Training shall be required for all construction personnel participating in ground disturbing construction to alert them to the cultural sensitivity of the project site and provide protocols to follow in the event of a discovery of archaeological materials. The Principal Archaeologist or Project Archaeologist shall develop and distribute an “ALERT SHEET” summarizing potential finds that could be exposed and the protocols to be followed as well as points of contact to alert in the event of a discovery.</p> <p>Policy LU-7.9: If the PA determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource or tribal cultural resource under CEQA, the PA shall notify the project proponent and Community Development Director, or their designee, of the evaluation. The PA shall recommend mitigation measures to mitigate to a less than significant impact in accordance with California Public Resources Code Section 15064.5. Tribal cultural resources shall be evaluated with the assistance of Native American tribes and/or individual tribal members who have previously been contacted and responded to outreach efforts made by the project proponent. Mitigation measures may include, but would not be limited to, avoidance, preservation in-place, recordation, additional archaeological testing, and data recovery. The completion of a formal Archaeological Monitoring Plan (AMP) and/or Archaeological Treatment Plan (ATP) that may include data recovery may be recommended by the PA if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the AMP and ATP and treatment of significant cultural resources and/or tribal cultural resources shall be completed by the project applicant in consultation with any regulatory agencies and Native American tribes and tribal individuals.</p> <p>Policy LU-7.10: The project applicant shall submit a Monitoring Closure Report to the City at the conclusion of ground disturbing construction if archaeological and Native American monitoring was undertaken.</p>

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies	
Impact	Mitigation Measure/Proposed Specific Plan Update Policy
<p>Impact CUL-3: Future projects could discover unknown human remains during construction. If Specific Plan Update Policies to protect these resources during construction are not implemented, future projects would have a significant impact on these resources. (Less than Significant Impact)</p>	<p><u>Proposed Cultural Resources Specific Plan Update Policy:</u></p> <p>Policy LU-7.11: In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped. The San Mateo County Coroner will be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) immediately. Once the NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.</p>
Geology and Soils	
<p>Impact GEO-1: Future projects under the Specific Plan Update could directly or indirectly cause substantial adverse effects related to strong seismic ground shaking and seismic-related ground failure. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM GEO-1: All structures shall be designed using sound engineering judgment and the latest California Building Code (CBC) requirements as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead and live loads. The code-prescribed lateral forces are generally substantially smaller than the expected peak forces that would be associated with a major earthquake. Therefore, structures shall be able to do all of the following:</p> <ul style="list-style-type: none"> • Resist minor earthquakes without damage. • Resist moderate earthquakes without structural damage but with some nonstructural damage. • Resist major earthquakes without collapse but with some structural as well as nonstructural damage.
<p>Impact GEO-2: Future projects under the Specific Plan Update could directly or indirectly cause substantial adverse effects related to liquefaction. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM GEO-2: Foundations shall be designed to compensate for effects of liquefaction, differential settlement, and lateral spreading due to earthquakes. Foundations shall be designed by a qualified structural engineer using soil design parameters developed by qualified geotechnical consultants and verified by the City’s Building Services Division.</p> <p><u>Specific Plan Update Shoreline-Adjacent Development Requirements</u></p> <ul style="list-style-type: none"> • Standard 9.7.6: Shallow Groundwater Vulnerability Assessment and Mitigation. Shoreline-adjacent development projects shall perform a geotechnical

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies	
Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	assessment of the project’s vulnerability to shallow groundwater rise and submit a list of project measures that will monitor and mitigate seasonal and permanent emergent groundwater impacts, including: buoyancy, seepage, infiltration, liquefaction, corrosion, and contaminant mobilization hazards.
Impact GEO-3: Future development adjacent to the San Francisco Bay could result in a significant impact related to lateral spreading. (Less than Significant Impact with Mitigation Incorporated)	MM GEO-3: Implement Mitigation Measure GEO-1 above. In addition, site development plans and foundations shall be designed to compensate for effects of lateral spreading due to earthquakes. Earthwork activities, including remedial grading, shall be performed using the recommendations provided by qualified geotechnical consultants, and foundations shall be designed by a qualified structural engineers using soil design parameters developed by qualified geotechnical consultants and verified by the City’s Building Services Division.
Impact GEO-4: Future development on existing Bay Mud deposits and fills could result in significant vertical movement and differential settlement. (Less than Significant Impact with Mitigation Incorporated)	MM GEO-4: Improvements on areas of soft Bay Mud and artificial fill must be designed under the guidance of suitably qualified geotechnical consultants to ensure that the underlying substrate is capable of withstanding the load. Existing fills may need to be removed and replaced with engineered fills.
Impact GEO-5: Future development on the existing expansive soils could result in resulting in heaving and cracking of building foundations. (Less than Significant Impact with Mitigation Incorporated)	MM GEO-5: Earthwork and foundations shall be designed to compensate for effects of expansive soils. Fill placement and foundation design criteria shall be developed by qualified geotechnical consultants and verified by the City’s Building Services Division.
Impact GEO-6: Future projects could encounter paleontological resources during construction, resulting in the destruction of these resources. (Less than Significant Impact with Mitigation Incorporated)	MM GEO-6: If paleontological resources are encountered during grading or excavation, all construction activities within 50 feet shall stop and the City shall be notified. A qualified paleontologist shall inspect the findings within 24 hours of discovery. If it is determined that the proposed development could damage unique paleontological resources, mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines. Possible mitigation under Public Resources Code Section 21083.2 requires that reasonable efforts be made for resources to be preserved in place or left undisturbed. If preservation in place is not feasible, project applicants shall pay in-lieu fees to mitigate significant effects. Excavation as mitigation shall be limited to those parts of resources that would be damaged or destroyed by a project. Possible mitigation under CEQA emphasizes preservation-in-place

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies	
Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	measures, including planning construction avoid paleontological sites, incorporating sites into parks and other open spaces, covering sites with stable soil, and deeding the site into a permanent conservation easement. Under CEQA Guidelines, when preservation in place is not feasible, data recovery through excavation shall be conducted with a data recovery plan in place. Therefore, when considering these possible mitigations, the City shall have a preference for preservation in place.
Greenhouse Gas Emissions	
Impact GHG-1: The greenhouse gas emissions from future development under the Specific Plan Update are predicted to annually add up to 63,690 MT CO ₂ e for Scenario #1 and 72,693 MT CO ₂ e for Scenario #2 through the addition of new residences, office, industrial/R&D, civic/community, and retail land uses. There is no current pathway for the Specific Plan Update, based on the mechanisms currently available to the City, to achieve carbon neutrality by 2045. (Significant and Unavoidable Impact)	Future projects would implement Specific Plan Update 8-4.1 TDM standards to reduce vehicle emissions (listed under Impact AIR-1).
Hazards and Hazardous Materials	
Impact HAZ-1: Future developments projects could 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)	<p>Proposed Specific Plan Update Policies</p> <ul style="list-style-type: none"> • LU-5.1: Prior to the development or redevelopment of site parcels, a property-specific Phase I ESA shall be completed in accordance with ASTM Standard Designation E 1527-21 (or most recent version) to identify Recognized Environmental Conditions, evaluate the property history, and establish if the property is likely to have been impacted by chemical releases. Soil, soil vapor and/or groundwater quality studies shall subsequently be conducted, if warranted based on the findings of the property-specific Phase I ESAs, to evaluate if remedial measures are needed to protect the health and safety of site occupants and construction workers. • LU-5.2: Prior to the start of earthwork activities (e.g., excavation, trenching, grading, etc.) on properties with

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>known contaminants of concern (COC) exceeding the lower of the current California Department of Toxic Substances Control (DTSC), San Francisco Bay Regional Water Quality Control Board (RWQCB) or U.S. Environmental Protection Agency (U.S. EPA) residential screening levels, an appropriate corrective action/risk management plan [e.g., RAP, removal action workplan (RAW) or Site Management Plan (SMP)] shall be prepared that reflects the results of the on-site investigations. The corrective action/risk management plan shall describe measures necessary to protect the health and safety of future site occupants, and establish appropriate management practices for handling and monitoring of impacted soil, soil vapor and groundwater that potentially may be encountered during construction activities. The corrective action/risk management plan shall be prepared by an Environmental Professional and be submitted to an appropriate overseeing regulatory agency (e.g., DEH, DTSC or RWQCB) for review. Regulatory agency approval shall be obtained prior to commencing earthwork activities.</p> <ul style="list-style-type: none"> • LU-5.3: A Health and Safety Plan (HSP) shall also be prepared to establish health and safety protocols for personnel working at the future project site. All remedial measures shall be completed under regulatory agency oversight and meet all applicable federal, state and local laws, regulations and requirements. Following completion, a report documenting compliance with the provisions of the corrective action/risk management plan and describing the work completed shall be submitted to and approved by the overseeing regulatory agency. • LU-5.4: Groundwater monitoring wells associated with the identified open leaking underground storage tank (LUST) and cleanup program site (CPS) cases are located on some Site parcels. These wells must be protected during construction. Upon written approval from the overseeing regulatory agency and the well owner, the wells would be destroyed under permit from the DEH prior to development activities. Relocation of the wells may be required. Monitoring wells that are no longer in use, or any unidentified wells (such as former agricultural wells) encountered

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>during construction activities, shall be properly destroyed in accordance with DEH requirements.</p> <ul style="list-style-type: none"> • LU-5.5: If a future development requires importing soil for property grading, the source and quality of imported soil shall be documented and reported to the appropriate overseeing regulatory agency prior to the start of earthwork activities. • LU-5.6: As part of the facility closure process for project site occupants with permits for storage of hazardous materials and/or generation of hazardous waste, facility closure activities (such as removal of remaining hazardous materials, cleaning of hazardous material handling equipment, decontamination of building surfaces, and waste disposal practices) shall be coordinated with the San Mateo County Department of Environmental Health (DEH) to ensure that required closure activities are completed prior to redevelopment of site parcels or change in use. <p><u>Proposed Specific Plan Update Asbestos and Lead Based Paint Policies</u></p> <ul style="list-style-type: none"> • LU-5.7: Asbestos Survey. Prior to issuance of demolition permits, an asbestos survey shall be completed on all structures proposed for demolition that are known or suspected to have been constructed prior to 1978 in accordance with National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable asbestos-containing materials (ACMs) prior to building demolition or renovation that may disturb the ACM. • LU-5.8: Demolition of Buildings Potentially Containing Asbestos: Prior to demolition, future project applicants shall submit a letter of approval that includes a Job Number (J#) shall be issued by BAAQMD, as proof of notification. The applicant shall notify BAAQMD of any demolition or renovation requiring the removal of 100 square feet or more, 100 linear feet or more, or 35 cubic feet or more of asbestos, at least 10 days prior to demolition or renovation. For residential buildings of four or fewer dwelling units, future applicants can

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>notify BAAQMD 72 hours in advance with the payment of an additional fee.</p> <ul style="list-style-type: none"> • LU-5.9: Lead-Based Paint Survey. Prior to issuance of a demolition permit, a lead-based paint (LBP) survey shall be completed on all structures proposed for demolition that are known or suspected to have been constructed prior to 1978. If LBP is identified, then federal and state construction worker health and safety regulations shall be followed during renovation or demolition activities. If loose or peeling LBP is identified at the building, it shall be removed by a qualified lead abatement contractor and disposed of in accordance with existing hazardous waste regulations. Requirements set forth in the CCR Title 8, Section 1532.1 shall be followed during demolition activities, including employee training, employee air monitoring, and dust control. Any debris or soil containing LBP or coatings shall be disposed of at landfills that meet acceptance criteria for the waste being disposed. • LU-5.10: Prior to future projects disposing of any demolition waste (e.g., as fluorescent lamps, PCB ballasts, lead acid batteries, mercury thermostats, and lead flashings), the demolition contractor shall coordinate with DEH to determine if the waste is hazardous and ensure proper disposal of waste materials.
<p>Impact NOI-1: Future projects within 500 feet of residential land uses and 200 feet of commercial land uses could result in significant temporary noise impacts to these receptors. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM NOI-1.1: Prior to the issuance of future developments' grading permits, a typical construction noise logistics plan would include, but not be limited to, the following measures to reduce construction noise levels as low as practical:</p> <ul style="list-style-type: none"> • Limit construction activity to weekdays between 7:00 a.m. and 7:00 p.m. and Saturdays and holidays between 9:00 a.m. and 7:00 p.m., with no construction on Sundays; • Limit combined construction noise levels (levels from all construction equipment used per phase) to an hourly average of 80 dBA L_{eq} for residential receptors and to an hourly average of 90 dBA L_{eq} for commercial receptors; • Utilize "quiet" models of air compressors and other stationary noise sources where such technology exists;

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<ul style="list-style-type: none"> • Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment; • Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses; • Locate staging areas and construction material areas as far away as possible from adjacent land uses; • Prohibit all unnecessary idling of internal combustion engines; • If impact pile driving is proposed, multiple-pile drivers shall be considered to expedite construction. Although noise levels generated by multiple pile drivers would be higher than the noise generated by a single pile driver, the total duration of pile driving activities would be reduced; • If impact pile driving is proposed, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses. Such noise control blanket barriers can be rented and quickly erected; • If impact pile driving is proposed, foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. Pre-drilling foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile. Notify all adjacent land uses of the construction schedule in writing; • Designate a “disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem are implemented. • Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction.
<p>Impact NOI-2: Traffic noise levels would result in an increase of three dBA CNEL or more at two roadway segments on Bay Road when 2040 cumulative plus project scenarios are compared to existing conditions and would increase</p>	<p>MM NOI-2.1: To address impacts related to traffic noise, the City shall ensure implementation of the following noise reduction strategies:</p> <ul style="list-style-type: none"> • Future development projects under the Specific Plan Update shall pay a fair share contribution toward the City’s installation of quieter pavement types such as Open-Grade Rubberized Asphaltic Concrete which

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
<p>noise levels by one dBA CNEL over cumulative no project conditions, resulting in a significant increase in permanent noise levels. (Significant and Unavoidable Impact)</p>	<p>could reduce noise levels by two (2) to three (3) dBA depending on factors such as existing pavement type and traffic speed allowed. Future development projects shall install or pay a fair share contribution toward the City's installation of traffic calming measures along Bay Road (between University Avenue and Pulgas Avenue) that include, but not limited to, speed humps, bumps, or tables, or traffic circles. Future traffic calming measures would be coordinated with the Menlo Park Fire Protection District to ensure there would be no substantial effects on response times.</p>
<p>Impact NOI-3: Future development's operational mechanical equipment could result in noise levels that exceed exterior noise levels at noise-sensitive receptors identified in Section 8.52.030 in the City's Municipal Code. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM NOI-3.1: Future development projects within the Specific Plan area shall retain a qualified acoustical consultant to review mechanical equipment systems during final design of their proposed project consistent with standard City practice. The qualified acoustical consultant shall review selected equipment and determine specific noise reduction measures necessary to reduce noise to comply with the City's noise level requirements set forth in Section 8.52.320 of the City's Municipal Code. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels and/or installation of noise barriers, such as enclosures and parapet walls, to block the line-of-sight between the noise source and the nearest receptors. Additionally, enclosures and interior wall treatments shall be considered to reduce noise exposure within the on-site units. Alternate measures may include locating equipment in less noise-sensitive areas, where feasible.</p>
<p>Impact NOI-4: Future construction activities could result in groundborne vibration levels exceeding 0.3 in/sec PPV limit at nonhistorical buildings, which would result in a significant vibration impact. (Less than Significant Impact with Mitigation Incorporated)</p>	<p>MM NOI-4.1: To address potential impacts related to vibration, the project will implement the following vibration controls in addition to the measures included in Policy 7.11 of the City's General Plan:</p> <ul style="list-style-type: none"> • Comply with the construction noise ordinance to limit hours of exposure. The City's Municipal Code allows construction activities between the hours 7:00 a.m. and 6:00 p.m. on weekdays and between 9:00 a.m. and 5:00 p.m. on Saturdays. Construction activity is not permitted on Sundays or national holidays. • Prohibit the use of heavy vibration-generating construction equipment within 25 feet of residences. Use a smaller vibratory roller, such as the Caterpillar model CP433E vibratory compactor, when compacting materials within 25 feet of residences adjoining the site. • Avoid dropping heavy equipment within 25 feet of residences. Use alternative methods for breaking up

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>existing pavement, such as a pavement grinder, instead of dropping heavy objects within 25 feet of residences adjoining the site.</p> <ul style="list-style-type: none"> • The contractor shall alert heavy equipment operators to the close proximity of the adjacent structures so they can exercise extra care. • For projects requiring impact or vibratory pile driving, a Construction Vibration Monitoring, Treatment, and Reporting Plan shall be implemented to document conditions prior to, during, and after vibration-generating construction activities. All plan tasks shall be undertaken under the direction of a licensed Professional Structural Engineer in the State of California and be in accordance with industry-accepted standard methods. The construction vibration monitoring plan shall include, but not be limited to, the following measures: <ul style="list-style-type: none"> • Document conditions at all structures located within 90 feet of pile driving activities and at historic structures located within 275 feet of pile driving activities prior to, during, and after vibration-generating construction activities. All plan tasks shall be undertaken under the direction of a licensed Professional Structural Engineer in the State of California and be in accordance with industry-accepted standard methods. Specifically: <ul style="list-style-type: none"> • Vibration limits shall be applied to vibration-sensitive structures located within 90 feet of any high impact construction activities, such as pile driving, and 275 feet of historic buildings. • Performance of a photo survey, elevation survey, and crack monitoring survey for each structure of normal construction within 90 feet of any high impact construction activities and each historic structure within 275 feet of pile driving activities. Surveys shall be performed prior to any construction activity, in regular intervals during construction, and after project completion, and shall include internal and external crack monitoring in structures, settlement, and distress, and shall document the condition of foundations, walls and other structural elements in the interior and exterior of said structures. • Develop a vibration monitoring and construction contingency plan to identify structures where

Table ES-1: Summary of Significant Impacts and Mitigation Measures/Specific Plan Update Policies

Impact	Mitigation Measure/Proposed Specific Plan Update Policy
	<p>monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. Construction contingencies shall be identified for when vibration levels approached the limits.</p> <ul style="list-style-type: none"> • At a minimum, vibration monitoring shall be conducted during all pile driving activities. • If vibration levels approach limits, suspend construction and implement contingency measures to either lower vibration levels or secure the affected structures. • 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. • Conduct a post-construction survey on structures where either monitoring has indicated high vibration levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.

Summary of Project Objectives

The stated objectives of the Ravenswood Specific Plan Update are to:

1. Blend office, R&D, industrial, retail, and residential uses together with public open space, amenities, and civic uses to create a complete neighborhood defined by increased diversity of activity, mobility choices, numerous high-quality parks, and vibrant community-serving spaces in the Specific Plan area.
2. Create smaller, more walkable blocks through the addition of publicly accessible streets, greenways, alleys, and multi-use pathways.
3. Maintain key view corridors to the Bay through building setbacks, stepbacks, and linear greenway networks.
4. Evolve Bay Road into a series of vibrant, community-serving nodes that are lined with active business and civic spaces through the use of frontage design standards.
5. Improve circulation and mobility in the Plan area by increasing the interconnectedness of the network and increasing opportunities to access the Bay/waterfront. Promote walkability through wide sidewalks covered with tree canopy, buffered bicycle facilities on key public streets, and a welcoming network of open space.
6. Enhance pedestrian and bicycle connections to the surrounding region, light rail, services, housing, and employers, creating a range of new public spaces and transportation options.
7. Achieve a 40 percent or greater reduction in single-occupancy vehicle trips to and from the plan area through improvements to transit service such as a public shuttle system and a multimodal connection to the planned Willow Village rail station.
8. Respect the existing single-family neighborhoods by requiring careful height and massing transitions for new buildings adjacent to single-family houses. Buildings would be smallest adjacent to existing neighborhoods and designed to respect the scale and character of the existing neighborhood.
9. Ensure that the local community benefits from new development, and that new developments specifically prioritize those benefits identified by the City.
10. Expand economic opportunity for residents through workforce development that provide consistent access to both skilled jobs (trainings and internships, subsidized spaces for new businesses) and attainable living wage jobs (funding and space for local merchants, vocational classes, PDR/fabrication/makerspaces & light industrial spaces).
11. Seek to address the current jobs-housing imbalance and maximize production of affordable housing units in the Plan area through a minimum linkage ratio between new housing units and office space that requires office developers to pay an Affordable Housing Commercial Linkage Fee.
12. Minimize displacement of existing residents by expanding the availability of income-restricted rental housing (with a focus on very low and low incomes as is appropriate for East Palo Alto, and to a lesser extent moderate incomes) and through support from developers for home ownership programs and funds.
13. Support the City's sustainability goals by promoting green buildings, aggressive water and energy conservation, and adherence to the City's Reach Code standards.

14. Broaden the City’s tax base by attracting multiple large-scale commercial and/or industrial development projects.
15. Stabilize the City’s finances and fiscal health over the long term through a significant increase over time (as development occurs) in the value of property taxes, Measure HH taxes, and other revenues collected in the Specific Plan area.
16. Facilitate the construction of the maximum amount of (deed-restricted) affordable housing by subsidizing it with linked non-residential development, in order to lessen indirect displacement and meet Regional Housing Needs Allocation (RHNA) housing goals and the General Plan Housing Element.
17. Enable substantial improvements to the utility systems and other infrastructure in the Specific Plan area, by maximizing the amount of development that can fund these upgrades.

Summary of Alternatives to the Proposed Project

CEQA requires that an EIR identify alternatives to a project as it is proposed. CEQA Guidelines Section 15126.6 specifies that an EIR should identify alternatives which “would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.” Below is a summary of the project alternatives analyzed in this Draft SEIR. A full analysis of the project alternatives is provided in Section 7.0 Alternatives.

Alternatives Considered but Rejected

The following alternatives were considered but rejected and described in detail in Section 7.3.1.

- Location Alternative
 - A Location Alternative would need to be at least of comparable size and have the potential to accommodate similar uses as the Specific Plan area (approximately 207 acres) within the City of East Palo Alto. There are no alternative locations within the City that meets this criteria.

Analyzed Alternatives

The following alternatives were evaluated as alternatives to the project and described in detail in Section 7.3.2.

- No Project/No New Development Alternative (assumes the Specific Plan is repealed and the Specific Plan area remains as it is today)
- No Project/Adopted Specific Plan Alternative (assumes the 2013 Specific Plan would remain the planning document for the Specific Plan area)
- Reduced Scale Alternative (assumes a 40 percent reduction of future development assumed under the Specific Plan Update, Scenario 2 – the most intensive scenario)

The environmentally superior alternative would be the No Project/No New Development Alternative given there would be no changes to the existing conditions or environmental impacts in the Specific Plan area. CEQA Guidelines 15126.6 (e)(2) state that if the environmentally superior alternative is the no project alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. Among the alternatives that would involve new development within the Specific Plan area, the environmentally superior alternative is the No Project/Adopted Specific Plan Alternative given it would result in less development and decreased impacts than the Specific Plan Update and Reduced Scale Alternative

Section 1.0 Introduction and Purpose

1.1 Purpose of the Subsequent Environmental Impact Report

The City of East Palo Alto (the City), as the Lead Agency, has prepared this Draft Subsequent Environmental Impact Report (SEIR) for the Ravenswood Specific Plan in compliance with the CEQA and the CEQA Guidelines. This SEIR will be a Subsequent EIR to the Ravenswood/4 Corners Transit Oriented Development Specific Plan Environmental Impact Report (SCH #2011052006) certified by the City in 2013. As described in CEQA Guidelines Section 15121(a), an SEIR is an informational document that assesses potential environmental impacts of a proposed project, as well as identifies mitigation measures and alternatives to the proposed project that could reduce or avoid adverse environmental impacts (CEQA Guidelines 15121(a)). As the CEQA Lead Agency for this project, the City of East Palo Alto is required to consider the information in the SEIR along with any other available information in deciding whether to approve the project. The basic requirements for an SEIR include discussions of the environmental setting, environmental impacts, mitigation measures, cumulative impacts, alternatives, and growth-inducing impacts. It is not the intent of an SEIR to recommend either approval or denial of a project.

1.2 SEIR Process

1.2.1 Notice of Preparation and Scoping

In accordance with Section 15082 of the CEQA Guidelines, the City prepared a Notice of Preparation (NOP) for this SEIR. The NOP was circulated to local, state, and federal agencies on April 15, 2022. The standard 30-day comment period concluded on May 16, 2022. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from implementation of the project. The City also held a public scoping meeting on May 9, 2022 to discuss the project and solicit public input as to the scope and contents of this SEIR. The meeting was held virtually on Zoom during a regularly scheduled Planning Commission meeting. Appendix A of this SEIR includes the NOP and comments received on the NOP.

1.2.2 Draft EIR Public Review and Comment Period

Publication of this Draft SEIR will mark the beginning of a 45-day public review period. During this period, the Draft SEIR will be available to the public and local, state, and federal agencies for review and comment. Notice of the availability and completion of this Draft SEIR will be sent directly to every agency, person, and organization that commented on the NOP, as well as the Office of Planning and Research. Written comments concerning the environmental review contained in this Draft EIR during the 45-day public review period should be sent to:

Alvin Jen
Planner
City of East Palo Alto, Planning Division
1960 Tate Street
East Palo Alto, CA 94303
rbd@cityofepa.org

1.3 Final EIR/Responses to Comments

Following the conclusion of the 45-day public review period, the City will prepare a Final SEIR in conformance with CEQA Guidelines Section 15132. The Final SEIR will consist of:

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

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

1.3.1 Notice of Determination

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

Section 2.0 Project Information and Description

2.1 Project Location

The approximately 207-acre Specific Plan area is located in the northeastern portion of East Palo Alto. University Village, a single-family neighborhood located immediately east of University Avenue, and Cooley Landing Park (a nine-acre nature preserve), which is located immediately to the east at the end of Bay Road, were formerly located within the Specific Plan area, however, they are not a part of the Specific Plan Update (the updated Specific Plan area is therefore a smaller subset of the original 2013 Ravenswood Specific Plan area, which was 350 acres in size). No land use changes are proposed for the University Village neighborhood or Cooley Landing Park.

The Specific Plan area is generally bounded by the City limits/Union Pacific Railroad (UPRR) tracks to the north, residential, office/R&D, industrial uses, and vacant grassland area to the west, Weeks Street or Runnymede Street and residential uses to the south, and the Ravenswood Open Space Preserve and Palo Alto Baylands Nature Preserve to the east. Existing development within the Specific Plan area includes single-family and multi-family residential, retail, medical office, light and general industrial, and civic/institutional land uses. The Specific Plan area includes approximately two acres of the San Francisco Bay Trail at the northern end of the Plan area 0.3-acres of private open space with a children's play, which is a part of a townhouse development on Montage Circle, at the southern end of the Plan area, and 16 acres of restored wetland/marsh areas at the northern and eastern areas of the Specific Plan area.

A regional map and vicinity map of the updated Specific Plan area are shown on Figure 2.2-1 and Figure 2.2-2, respectively. An aerial photograph with surrounding land uses is shown on Figure 2.2-3. A land use map that shows the allowed land uses under the existing 2013 Specific Plan is shown on Figure 2.2-4.

2.2 Background Information

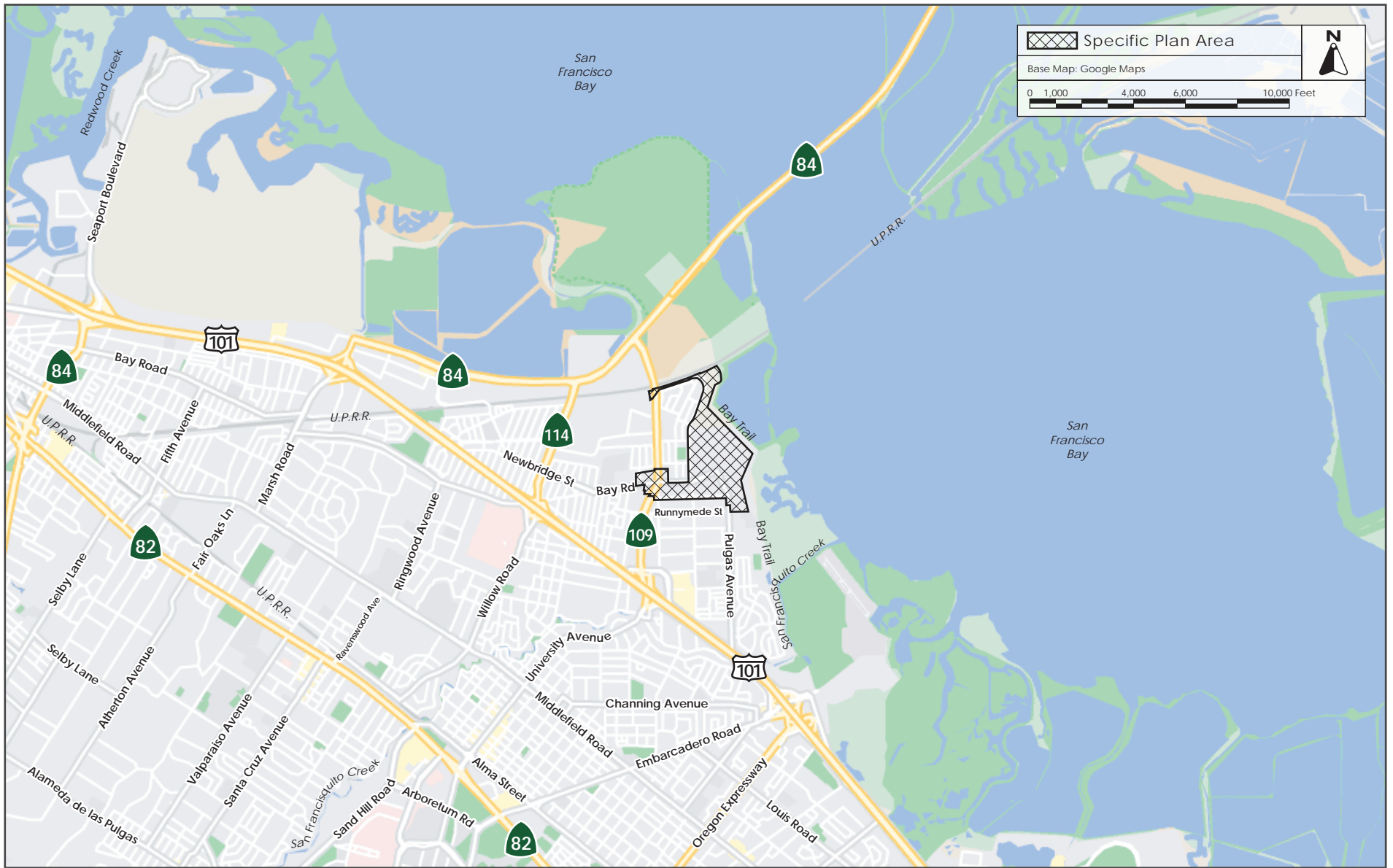
The City adopted the existing Ravenswood Specific Plan in 2013 (2013 Specific Plan). This plan provides a policy and regulatory framework for reviewing development projects and public improvements in the Specific Plan area. The 2013 Specific Plan allows for development of up to 1.4 million square feet of office/R&D uses, 175,910 square feet of industrial uses, 112,400 square feet of retail uses, 61,000 square feet of civic/community uses, and 835 housing units (comprised of 816 multifamily and 19 single-family units). Table 2.2-1 shows the existing and remaining development capacity in the 2013 Specific Plan area.

The 2013 Specific Plan proposed a new loop road to the north and east of University Village to connect University Avenue to Ravenswood to help reduce traffic congestion on Bay Road and at the Bay Road/University Avenue intersection. The loop road was assumed to have a 12-foot wide multi-use path (with two-foot shoulders) along the northern and eastern perimeter of the Plan area (west of the Ravenswood Open Space preserve). The loop road was evaluated in the 2013 Specific EIR.



REGIONAL MAP

FIGURE 2.2-1



Specific Plan Area

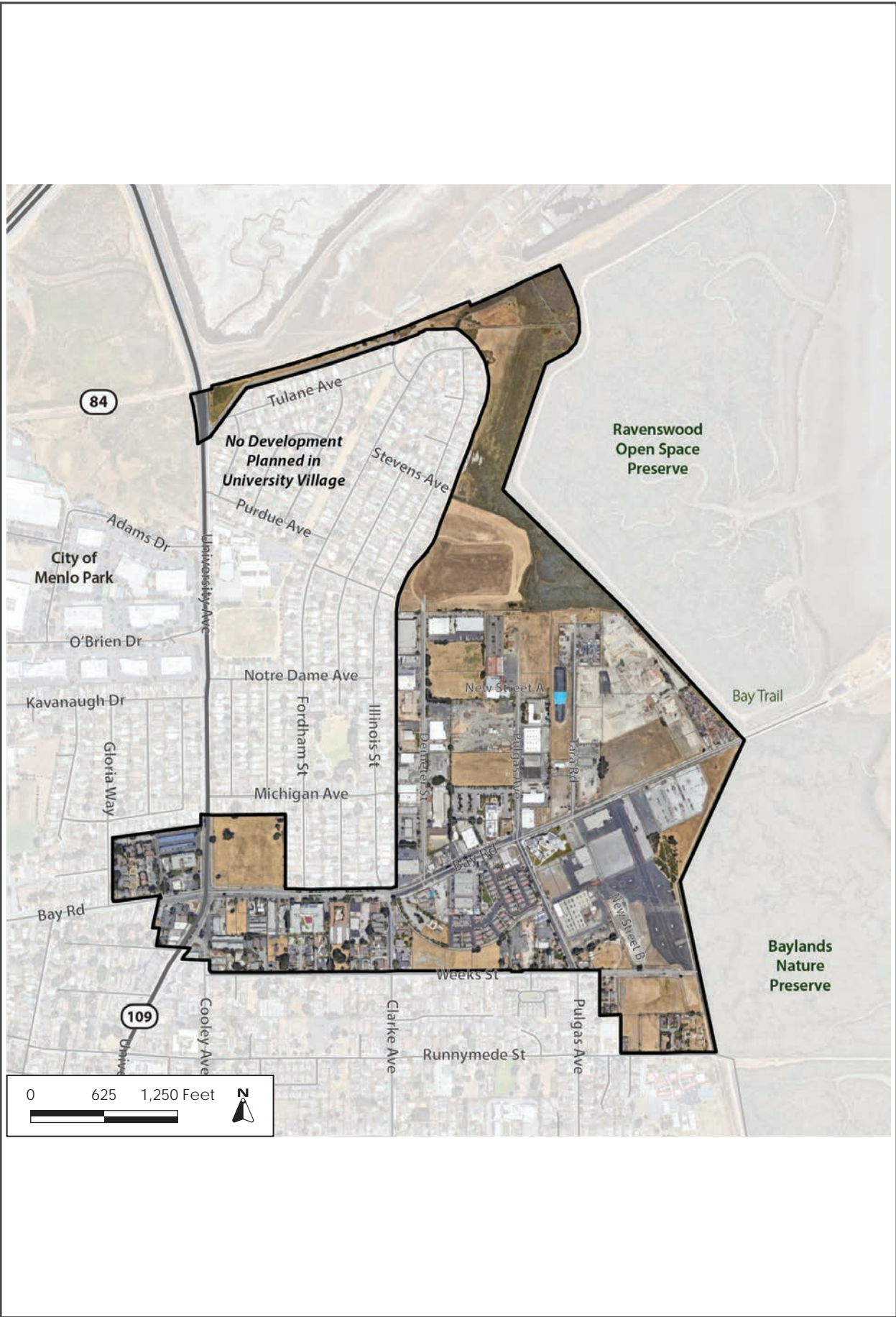
Base Map: Google Maps

0 1,000 4,000 6,000 10,000 Feet

N

VICINITY MAP

FIGURE 2.2-2



AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 2.2-3



Source: City of East Palo Alto.

2013 SPECIFIC PLAN LAND USE MAP

FIGURE 2.2-4

Table 2.2-1: Existing and Remaining Development Capacity within 2013 Specific Plan Area							
	Office (s.f.)	R&D/Lab (s.f.)	Light Industrial (s.f.)	Retail (s.f.)	Civic (s.f.)	Amenity (s.f.)	Housing Units
Existing Conditions (2022)	125,000 ^a	0	0	200,000	75,000 _b	25,000	0
Allowed Under Adopted 2013 Specific Plan	1,268,500	176,000	175,820	112,400	61,000	0	835
Built under the Adopted 2013 Specific Plan	32,650 ^a	0	0	0	25,000 _b	0	0
<i>Remaining Development Allowed under the Adopted 2013 Plan Allocation</i> ^c	<i>1,235,850</i>	<i>176,000</i>	<i>175,820</i>	<i>112,400</i>	<i>36,000</i>	<i>0</i>	<i>835</i>
Notes							
^a Ravenswood Family Health Center was constructed and in operation by 2015. The 32,650 square foot health center is included in the existing conditions (office).							
^b The 25,000 square foot EPACenter was constructed in 2021 and in operation by 2022. The EPACenter is assumed in the existing conditions (civic).							
^c The entitled projects under the 2013 Specific Plan have been approved by the City but are not yet constructed. 108,000 square feet of office and 168 housing units are entitled. However, it is unclear if these projects will move forward. Therefore, the entitlements were not assumed in the remaining development calculations.							

2.3 Project Description

The proposed Specific Plan Update would increase the total amount of development allowed within the Specific Plan area by increasing the maximum square footages for office, R&D/life science, light industrial, civic/community, and tenant amenity, and the total number of residential units allowed under the Specific Plan.

This SEIR evaluates two development scenarios:

- Scenario #1 would consist of 2.8 million square feet of office and R&D, 250,000 square feet of industrial space, 43,870 square feet of tenant amenity space, and 1,350 residential units.
- Scenario #2 would consist of 3.3 million square feet of office and R&D, 300,000 square feet of industrial space, 53,500 square feet of tenant amenity space, and 1,600 residential units.

The other land uses (e.g. retail, civic, etc.) proposed in the Specific Plan Update would remain consistent between the two scenarios, as shown in Table 2.3-1.

The Specific Plan Update assumes the development of a new library facility (i.e., a civic use) within the Specific Plan area and includes a previously approved (in 2023) General Plan Amendment and Rezoning of a site (2474 Pulgas Avenue) to a Public Institutional Zone for the property acquisition to accommodate future development of a 23,275 square foot library building.

Compared to the 2013 Specific Plan, the Specific Plan Update would result in increasing the allowable intensity and height for proposed land uses. Under both buildout scenarios, all proposed increases in non-residential development square footage would occur on parcels within the Specific Plan area that currently allow such non-residential land uses. In contrast, the proposed Specific Plan update would allow for residential uses in more zones/parcels than what is allowed under the 2013 Specific Plan (refer to Figure 2.3-1).

The proposed maximum amounts of development allowed under the two Specific Plan Update scenarios are compared to the totals allowed under the 2013 Specific Plan in Table 2.3-1. Buildout of the Specific Plan Update is projected to result in an approximate additional 4,190 residents and 9,645 jobs for Buildout Scenario 1, and 5,015 residents and 11,340 jobs for Buildout Scenario 2. In comparison, the 2013 Specific Plan was expected to generate an additional 2,450 residents and 5,110 jobs.

The Specific Plan Update includes an option to construct a loop road and an option to not include the loop road. This SEIR, therefore, evaluates Development Scenarios 1 and 2 (described in the Preface and shown in Table 2.3-2) with and without the loop road options.

2.3.1 Land Use Zones

The proposed Specific Plan Update includes amendments to the East Palo Alto General Plan and Zoning Ordinance, which would amend certain existing land use designations in the Specific Plan area and update existing or establish new development standards to replace current zoning provisions applicable to the Specific Plan area. The Specific Plan Update includes the following land use zones, which are also shown in Figure 2.3-1.

- **Four Corners (Up to 2.0 Floor Area Ratio [FAR], 60 Dwelling Units per Acre [du/ac]; Mixed-Use – Residential, Retail, Office/Lab).** This designation is intended to support downtown East Palo Alto focused around the intersection of University Avenue and Bay Road. It accommodates multi-story mixed-use buildings that have retail stores or community facilities on the ground floor, with housing and/or offices on upper floors.
- **Bay Road Central (Up to 0.75 FAR, 50 du/ac; Residential, Retail, Medical, Civic).** Intended to make Bay Road a lively, inviting place that creates a strong connection between Four Corners and Cooley Landing. Accommodates multi-story mixed-use buildings that have individual residential entries, retail stores, or storefront-type offices on the ground floor, with housing (or offices to a lesser extent) on upper floors.
- **Ravenswood Employment Center (Up to 0.75 FAR; Low/Medium-Intensity Employment, Retail/Community).** Intended to support the development of a variety of job-creating uses,

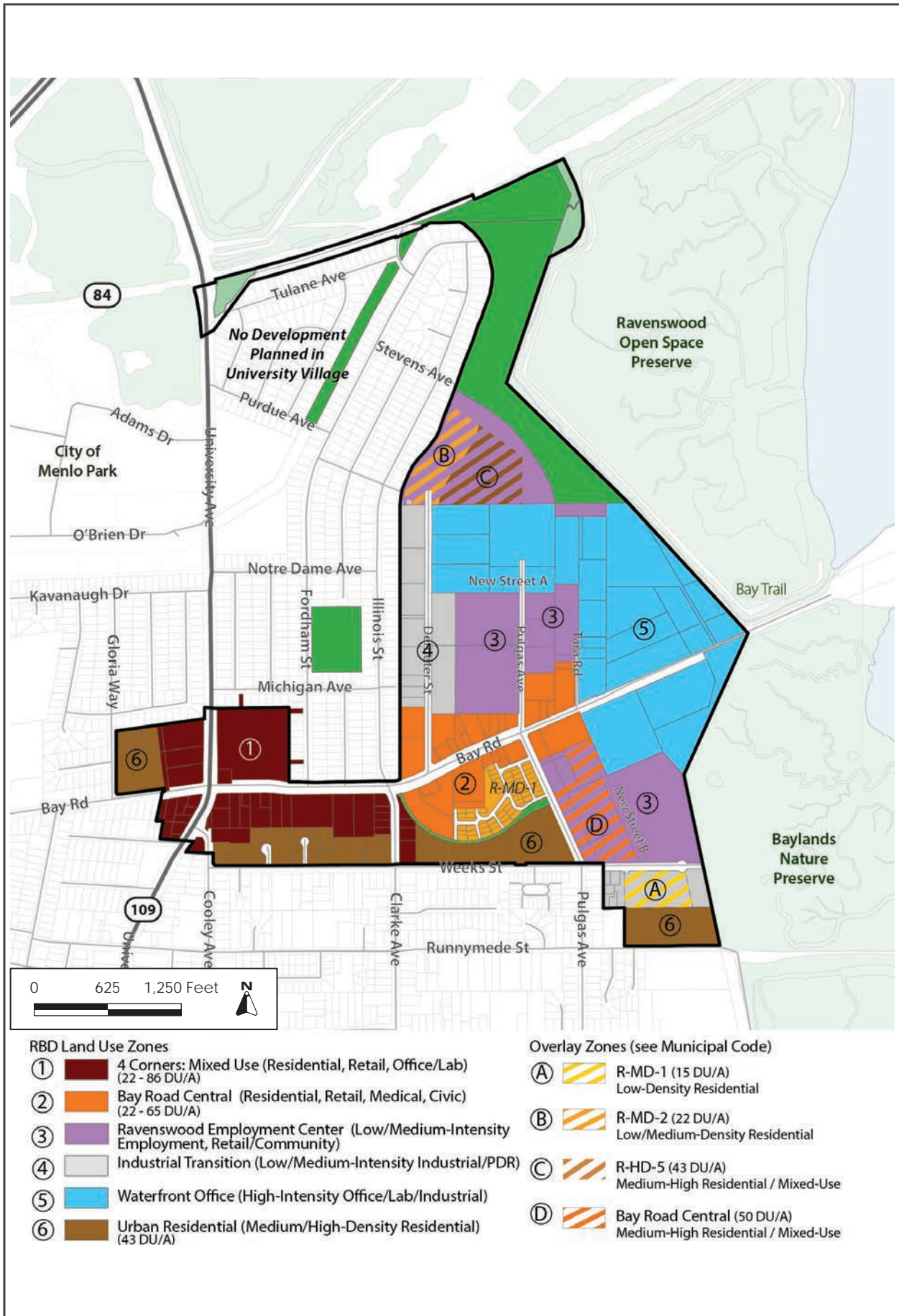
including high-quality research and development (R&D) facilities and associated offices. Also accommodates businesses that fabricate and produce goods, distribute merchandise, or repair equipment, provided that they do not negatively affect surrounding uses or properties.

- **Industrial Transition (Up to 0.75 FAR; Low/Medium-Intensity Industrial).** Accommodates low-intensity light industrial, manufacturing, and repair businesses that do not attract large amounts of traffic or adversely affect nearby homes. Provides spaces for local businesses. Serves as a transition between single-family homes and more intense employment areas.
- **Waterfront Office (Up to 2.0 FAR; High-Intensity Office/Lab/Industrial).** Intended to create a higher-intensity, urban office district within the Plan Area. Accommodates professional offices, research & development facilities, limited light industrial uses, and supporting retail or similar uses.
- **Urban Residential (Up to 40 du/ac; Medium/High-Density Residential).** Intended to provide opportunities for the development of a variety of housing types at moderate densities. Accommodates single-family attached residential units² and multi-family apartments or condominiums.

Additionally, the Specific Plan provides for the following Residential Overlay zones:

- R-MD-1 (Up to 2.5 stories, up to 15 du/acre; low-density residential)
- R-MD-2 (Up to 3.0 stories, up to 22 du/acre; low/medium-density residential)
- R-HD-5 (Up to 5.0 stories, up to 43 du/acre; medium-high density residential/mixed-use)
- Bay Road Central (Up to 5.0 stories, up to 50 du/acre; medium-high density residential/mixed-use)

² A single-family attached residential unit (or dwelling as described in the City's Municipal Code), is a residential unit attached to another unit, excluding accessory dwelling units. These units could include townhomes, duplexes, triplexes and fourplexes. Each unit would be separately owned, located on a discrete parcel, and joined to another unit along a single parcel line.



RAVENSWOOD/4 CORNERS TOD SPECIFIC PLAN UPDATE LAND USE MAP | FIGURE 2.3-1

Table 2.3-1: Development under Scenarios #1 and #2

Development Scenarios	Non-Residential (square feet)							Housing (dwelling units)		
	Office/ R&D	Office	R&D/Lab	Light Industrial or Flex	Retail	Civic/ Community	Tenant Amenity	All	Multi- family	Single- family attached units
Existing Conditions (2022)	N/A	125,000 ^a	0	125,000	200,000	75,000 ^b	25,000	350	248	102
Existing Developments to be Redeveloped	N/A	65,000	0	35,000	25,000	0	0	100	100	0
Total Allowed Under Adopted 2013 Specific Plan	1,444,410	1,268,500	176,000	175,820	112,400	61,000	0	835	816	19
Reallocation										
Adopted 2013 Specific Plan Scenario (not including the projects constructed and in operation under the 2013 Plan)	1,411,850	1,235,850 ^a	176,000	175,820	112,400	36,000 ^b	0	835	816	19

Table 2.3-1: Development under Scenarios #1 and #2

Development Scenarios	Non-Residential (square feet)							Housing (dwelling units)		
	Scenario #1	2,791,350	1,802,950 ^a	988,400	250,000	112,400	129,700 ^{bb}	43,870	1,350	1,270
<i>Net Change #1 (compared to Adopted 2013 Plan allowed development)</i>	<i>+1,379,590</i>	<i>+567,100</i>	<i>+812,490</i>	<i>+74,090</i>	<i>0</i>	<i>+93,700</i>	<i>+43,870</i>	<i>+515</i>	<i>+454</i>	<i>+61</i>
Scenario #2	3,302,350	2,135,100 ^a	1,167,250	300,000	112,400	129,700 ^b	53,500	1,600	1,472	128
<i>Net Change #2 (compared to Adopted 2013 Plan allowed development)</i>	<i>+1,890,590</i>	<i>+899,250</i>	<i>+991,340</i>	<i>+124,090</i>	<i>0</i>	<i>+93,700</i>	<i>+53,500</i>	<i>+765</i>	<i>+656</i>	<i>+109</i>

^a Existing conditions (office space) includes 32,650 square foot Ravenswood Health Center that has been constructed and is in operation since 2015 under the 2013 Specific Plan. 32,650 square feet of office has been subtracted from the office development allowed under all scenarios given the health center has been construction and is in operation.

^b Existing conditions (civic space) includes 25,000 square foot EPACenter which has been constructed and in operation since 2022 under the 2013 Specific Plan. 25,000 square feet of civic/community space has been subtracted from the development allowed under all scenarios given the EPACenter has been construction and is in operation.

2.3.2 Maximum Building Heights

The Specific Plan update includes maximum building heights allowed for future developments in the Plan area. The maximum building heights range from approximately 30 feet to 122 feet above the ground surface. The Specific Plan update's height standards would allow the tallest buildings (seven to eight stories, between 104 to 122 feet above the ground surface) to occur at the eastern end of the Specific Plan area. In general, the allowed maximum heights would decrease in areas adjacent to existing single-family neighborhoods. The maximum building heights allowed under the proposed Specific Plan update are shown on Figure 2.3-2.

2.3.3 Open Space Areas

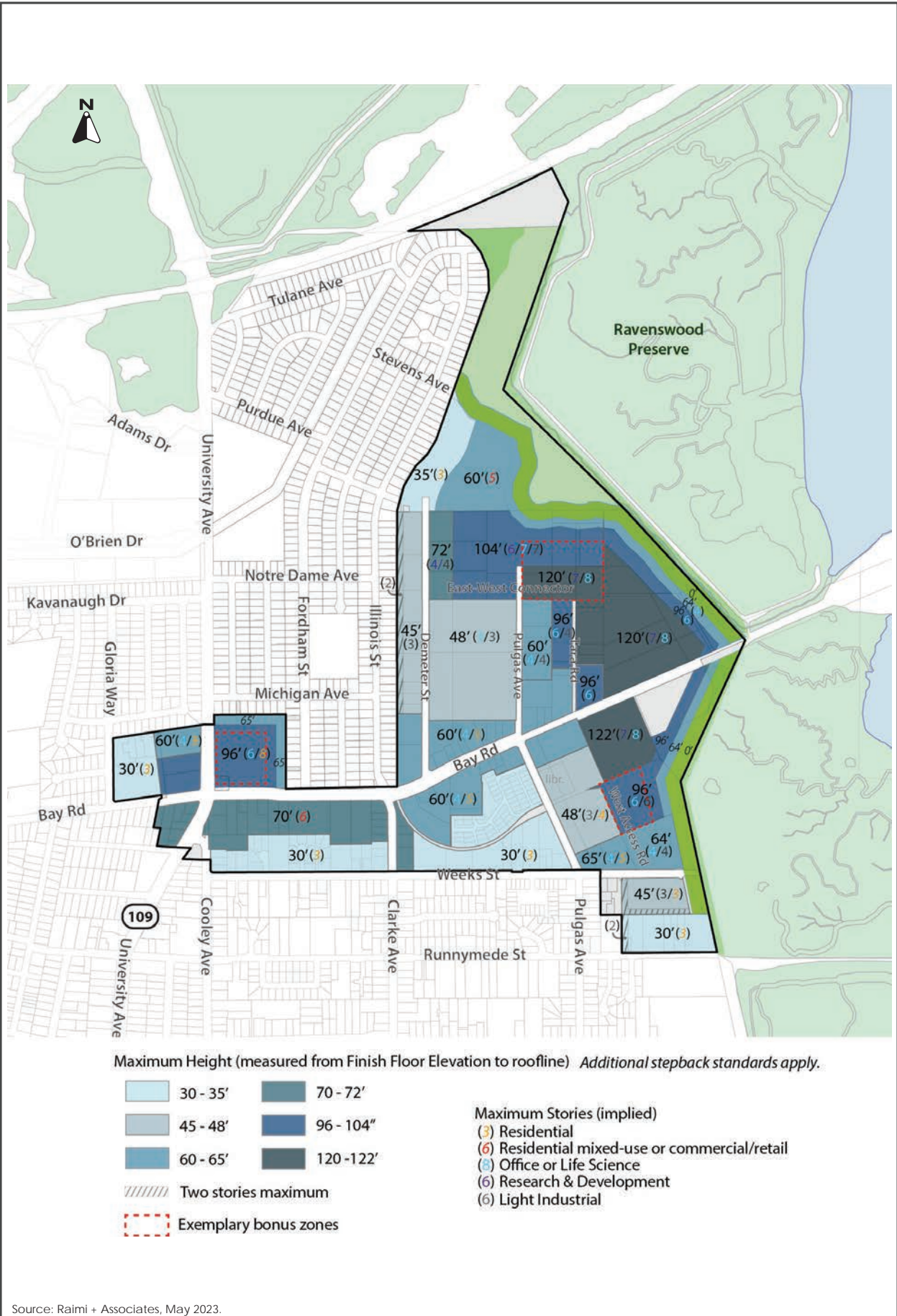
The Specific Plan defines open space as publicly accessible open spaces, parks, and natural areas which serve the community by providing public access. The Specific Plan Update would add 30.5 acres of open space, including parks and trails. Refer to Table 2.3-2 for a list of park and open space areas that would be added (refer to Figure 2.3-3 for a map of the Specific Plan's proposed open space network). Table 2.3-2 identifies the diagram number the parks and recreational facilities are associated with on Figure 2.3-3.^{3, 4}

³ Note: Numbers 1-3 on Figure 2.3-3 are street improvements, and therefore, are not included in Table 2.3-2. The Specific Plan Update proposed street improvements are described in Section 2.3-4 of this SEIR.

⁴ Table 7-1 in the Specific Plan Updates provides the acreage of park space and differentiates the public-owned versus privately owned public open space.

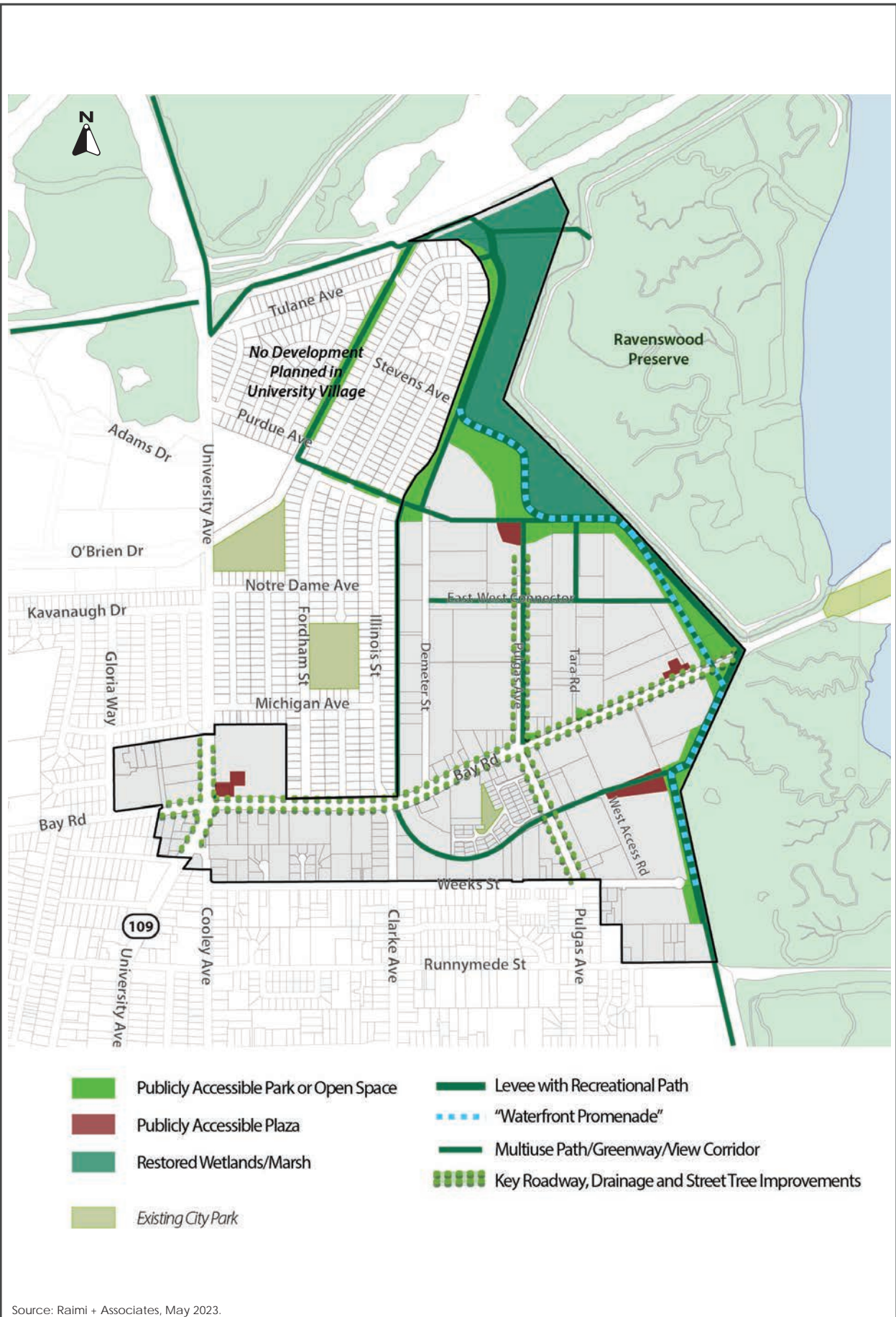
Table 2.3-2: Specific Plan Update Additional Parks and Open Space Areas		
Number on Open Space Network Diagram	Facility Name	Acreege
Trails, Multi-use Paths and Greenways		
4a	Bay Trail Along Northern/San Francisco Public Utilities Commission (SFPUC)	1
4b	Bay Trail Along Eastern/Midpeninsula Regional Open Space District (MROSD) portion	1
5	Union Pacific Railroad (UPRR) Spur Linear Greenway (parallel to Demeter St)	0.5
6	Bay Trail, Southern Reach (Weeks to Bay Road)	1.25
7	Greenway/Major View Corridor (Demeter Street to Tara Road)	0.4
8	Greenway/ Major View Corridor (Tara Road to Bay Trail)	0.25
9	UPRR Spur Trail (Pulgas Avenue to Bay Trail)	0.5
10	Greenway/Minor View Corridor (Purdue Avenue to Bay Trail)	0.5
Parks		
<i>Community Parks and Plazas</i>		
12	2091 Bay Road Park (Infinity Salvage)	1.75
13	End of Bay Road Park (211 Demi Lane Dog Park)	1.25
14	Central Waterfront Plaza/Lawn, South of Bay	2.5
17a	North of Bay Recreational Fields	4
17b	North of Bay Park and Gardens	2
18	Central Waterfront Plaza/Lawn, North of Bay	4
23	End of Fordham Park	2
<i>Neighborhood Parks</i>		
11	Hetch Hetchy Park and Linear Greenway (SFPUC)	2.5
16	Weeks Street Park	0.85
21	Waterfront Park, North of Bay Road (2020 Bay Road)	1.5
22	Detention/Water Storage Park (Purdue Avenue at Demeter Street)	1
<i>Pocket Parks and Urban Plazas</i>		
15	4 Corners Urban Plaza	0.75
19	Purdue Greenway and Pocket Parks (East of Fordham)	0.5
20	Pump Station Pocket Park (Northeast Pulgas Avenue at Bay Road)	0.5
Total Acres of Park and Trail Space to be Added to Specific Plan Area		30.5

The 16 acres of preserved/restored wetlands identified as “W” on the Figure 2.3-3 Open Space Diagram are existing wetlands that would remain in the Specific Plan area.



MAXIMUM BUILDING HEIGHTS

FIGURE 2.3-2



OPEN SPACE NETWORK DIAGRAM

FIGURE 2.3-3

2.3.4 Future Levee (proposed by San Francisquito Creek Joint Powers Authority)

A future flood control levee may be constructed along the eastern edge of the Specific Plan area, adjacent to the Ravenswood Open Space Preserve. The levee would not be constructed by the City as part of the Specific Plan Update. The future levee would be constructed by San Francisquito Creek Joint Powers Authority (SFCJPA), as a part of the Strategy to Advance Flood protection, Ecosystems and Recreation along the San Francisco Bay (SAFER Bay) flood control project. The goal of the SAFER Bay project is to reduce the risk of flooding within the cities of East Palo Alto and Menlo Park through continuous flood control protection along the bayfront. SFCJPA is in the preliminary stages of designing the levee and detailed plans are not available at this time. A separate environmental review process will be completed by SFCJPA to evaluate the environmental impacts of the future levee when the project is at a state of design to allow for analysis.

2.3.5 Public Roadway Network, the Loop Road, and Pedestrian and Bicycle Improvements

2.3.5.1 *Public Roadway Network and the Loop Road*

The proposed street network for the Specific Plan area would consist of existing streets (public and private) and new streets for vehicles and/or people who would walk or bike in the Specific Plan area. Under the Specific Plan Update (under both project scenarios), new roadway connections, which would be privately owned/maintained, but publicly accessible, or public rights-of-way (ROWs), would be constructed. The following roadway improvements would be constructed under the Specific Plan Update (refer to Figure 2.3-4)

- An internal street at Four Corners (see Figure 2.3-4), between University Ave and Bay Road.
- East-West Ravenswood Connector, a new east-west street to improve circulation and reduce vehicle trips on Bay Road.
- A new street running southeast from Tara Road to Bay Road
- A southern extension of Tara Road to Weeks Street
- An east-west street south of Bay Road between the Tara Road extension and Pulgas Avenue
- A transit-only street between Demeter Street and Pulgas Avenue

Loop Road

For both development scenarios, a loop road could be constructed, which would be located along the perimeter of the northern portion of University Village (immediately to the west of the Specific Plan area) and extend from the existing terminus of Demeter Street to connect with University Avenue. As currently envisioned, the loop road configuration would be a 76-foot right of way along the northern perimeter and 56-foot right of way along the western perimeter and would include two travel lanes, along with a 14-foot wide multi-use path and associated shoulders and buffers. The loop road would provide a direct route between the Specific Plan area and University Avenue,

avoiding the need to use Bay Road. The loop road could also be used for emergency evacuation, in accordance with state requirements, and provide emergency vehicle access. Detailed plans of the future loop road are not available at this time; therefore, the SEIR evaluates the loop road at a program-level. Supplemental environmental review will be required at the time detailed plans are available and prior to City approval of the design for the loop road. The proposed roadway network and loop road are shown on Figure 2.3-4. Preliminary cross sections of the loop road are shown on Figure 2.3-5, and are subject to revisions as more detailed engineering occurs during Specific Plan Update implementation.

2.3.5.2 *Pedestrian and Bicycle Improvements*

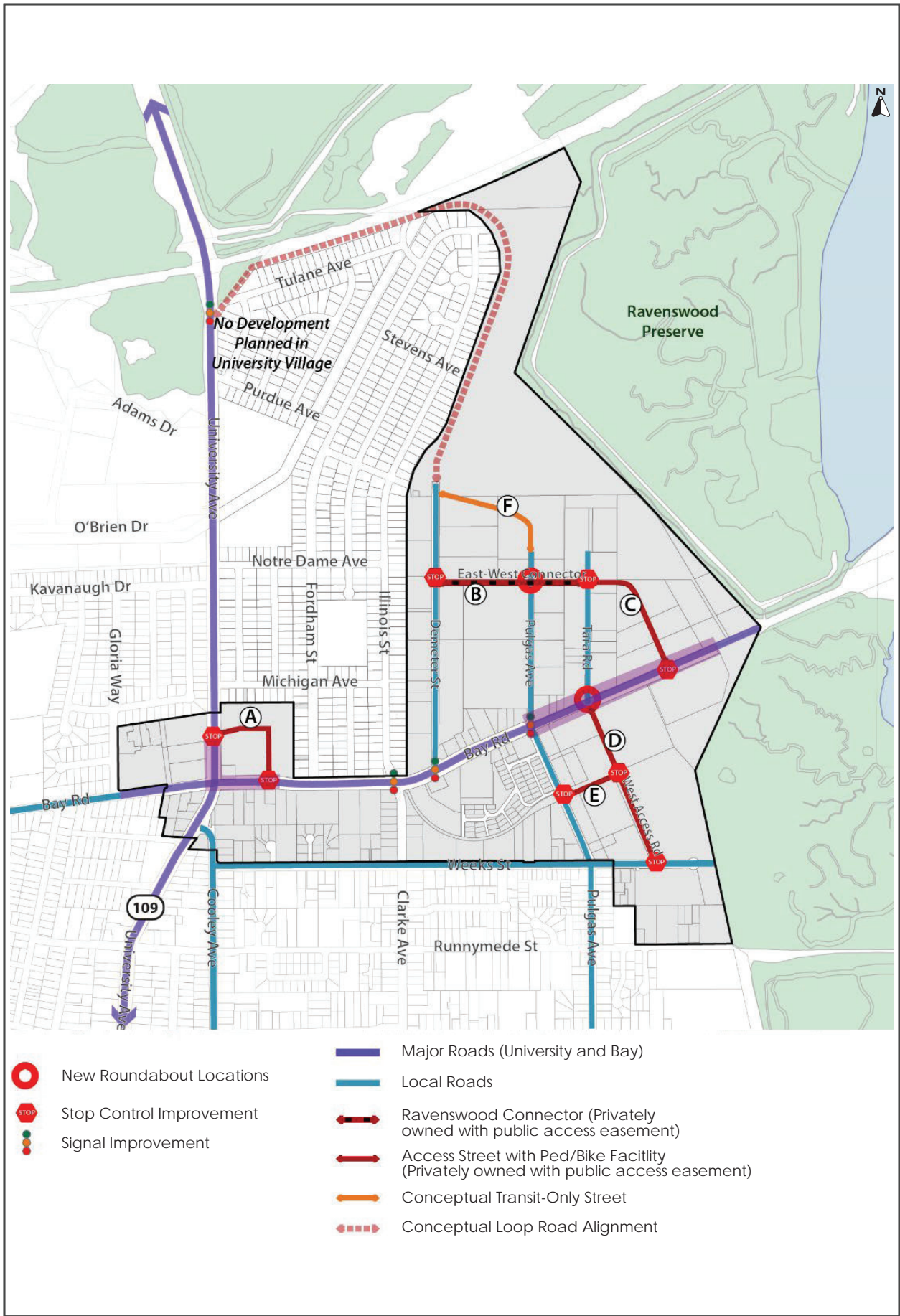
Streets within the Specific Plan area such as Pulgas Avenue, Tara Road, Bay Road, University Avenue, and Runnymede Street, lack continuous sidewalks. As properties within the Specific Plan area develop, sidewalks would be added to the missing segments. All new streets under the Specific Plan Update would include sidewalks, and sidewalks on existing streets would include improvements such as widening and streetscape improvements. Pedestrian improvements also include multi-use trails (i.e., shared bicycle/pedestrian paths) throughout the Specific Plan area. The Specific Plan Update would include new bicycle paths, bicycle lanes, and bicycle routes. Pedestrian and bicycle improvements proposed under the Specific Plan Update are shown in Figures 3.16-4 and 3.16-5.

Multi-Use Path (Loop Road Option)

The potential loop road would include a multi-use path (that would be at least 14-foot wide). The multi-use path would be constructed along one side of the loop road. If the SAFER BAY future levee is constructed, the multi-use path could be constructed at the top of the levee (refer to Figure 2.3-5).

Multi-Use Path (No Loop Road Option)

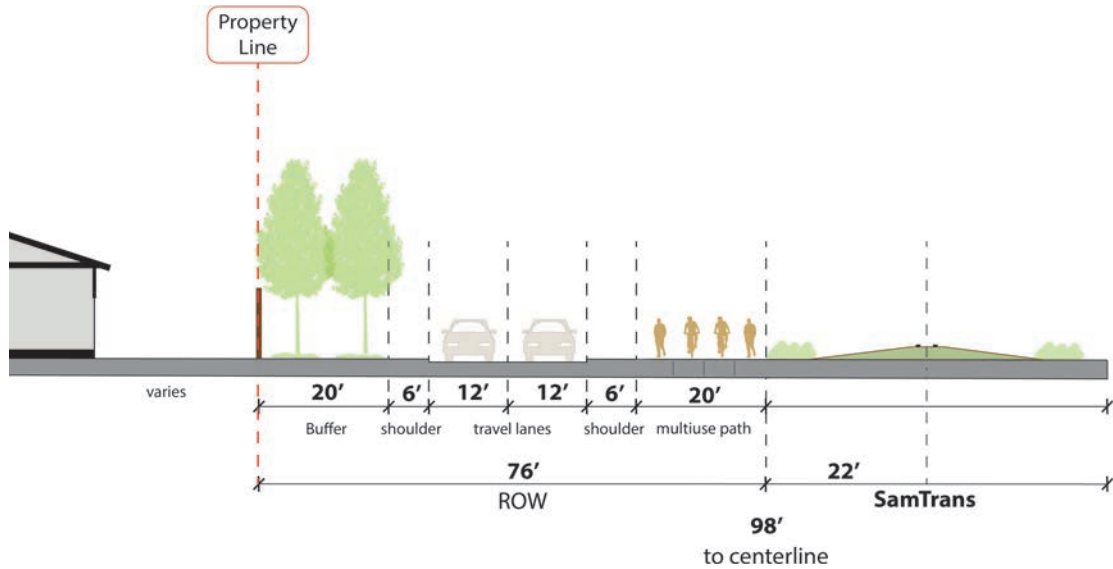
The no loop road option would have a shared multi-use path for bicycles/pedestrians and the existing service lane with access for San Francisco Public Utilities Commission (SFPUC) infrastructure, located north of the Specific Plan area. The multi-use path northern perimeter would be constructed within a 50-foot right-of-way between existing property lines of University Village residences (to the south) and the upland grassland and salt marsh habitats (to the north). The multi-use path eastern perimeter configuration would consist of a 30-foot right-of-way area between the property lines of University Village residences (to the west) and salt marsh and upland grassland habitats (to the east). The right-of-way would accommodate a shared multi-use trail for bicycles/pedestrians (on top of the future levee) and no travel lanes (i.e., no loop road). Cars, buses, trucks, and large shuttles would not be allowed on the multi-use path. Cross sections of the multi-use path without the loop road are shown on Figure 2.3-6.



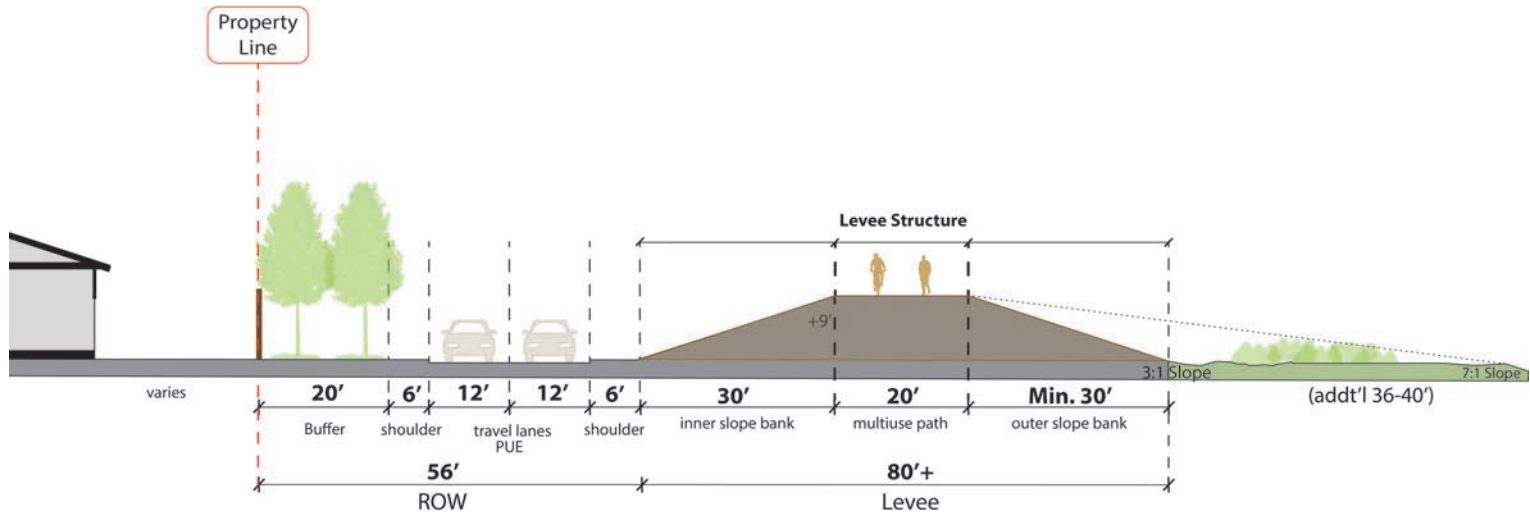
ROADWAY NETWORK AND IMPROVEMENTS

FIGURE 2.3-4

Northern Perimeter, with Loop Road (no Levee)

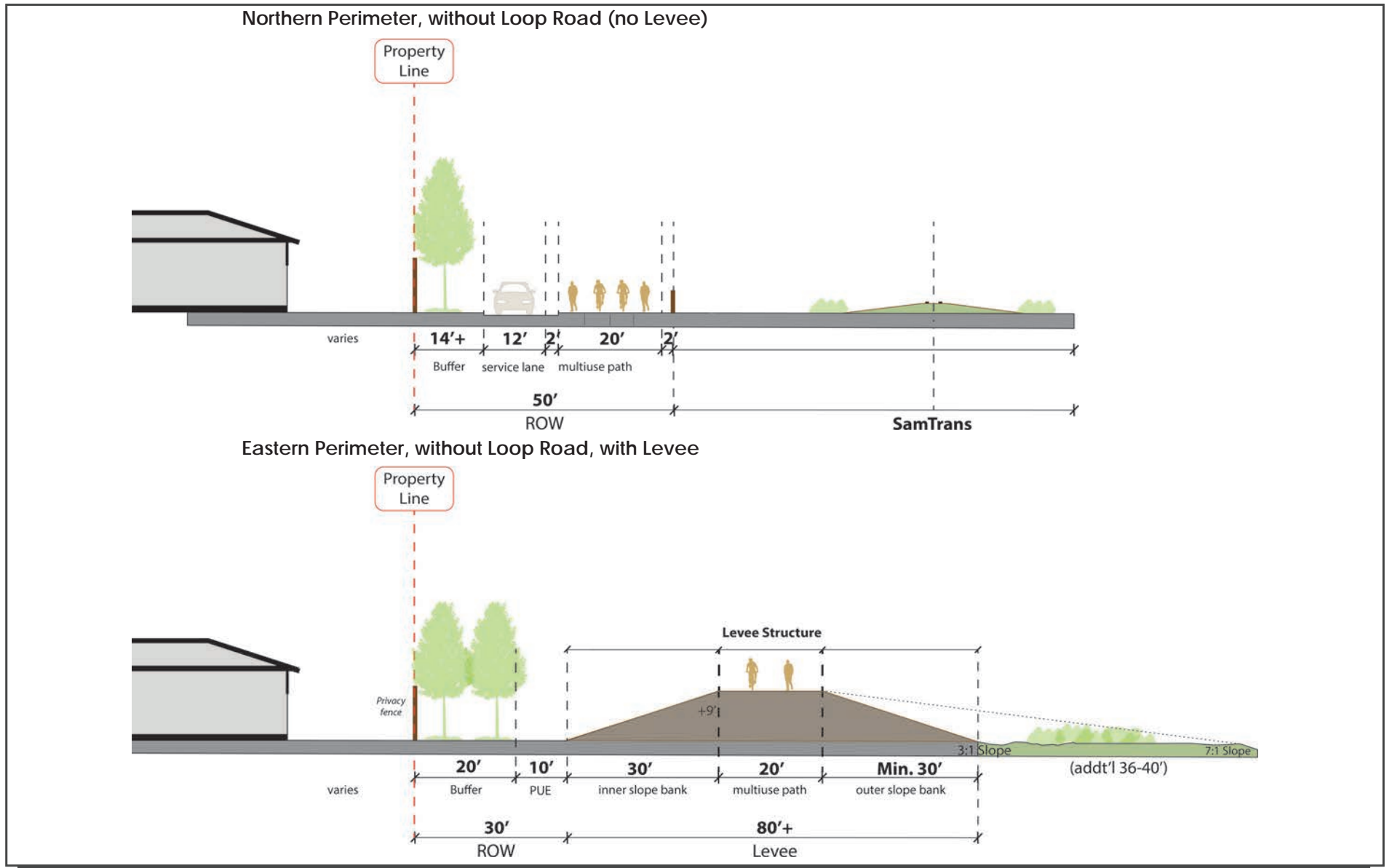


Eastern Perimeter, with Loop Road and Levee



LOOP ROAD CROSS SECTIONS

FIGURE 2.3-5



MULTI-USE PATH CROSS SECTIONS WITHOUT LOOP ROAD

FIGURE 2.3-6

2.3.6 Transit Improvements

The Specific Plan Update requires major private developments to include transit stops that would be used by shuttles provided by a Transportation Management Association (TMA), SamTrans, or other future transit providers. The TMA, the Specific Plan Update anticipates which would consist of property owners pursuing development proposals under the Specific Plan Update, will fund and operate a shuttle program that connects employees and residents with nearby commercial, transit, and employment centers and provides long-haul service to housing and employment centers in other communities. Shuttle stops or pick-up/drop-off zones are anticipated to be included on each major development site as well as along Bay Road for convenient access by employees and residents in the Plan Area. The conceptual locations of the required shuttle stops within the Specific Plan area and potential transit improvements in and adjacent to the Plan are shown on Figure 3.16-6.

2.4 Project Objectives

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15124, the Environmental Impact Report (EIR) must include a statement of objectives sought by the Specific Plan Update. The 2013 Specific Plan had similar objectives to encourage a broader mix of uses and expand employment opportunities in the Specific Plan area. However, the below Specific Plan Update's objectives would replace the 2013 Specific Plan objectives and account for updates made to the Specific Plan. The 2013 Specific Plan included an objective to add a new school. The Specific Plan Update includes objectives to construct the (deed-restricted) affordable housing, minimize the displacement of residents, broaden the City's tax base by attracting multiple large-scale commercial and/or industrial development projects, have a shuttle system, and to achieve a 40 percent or greater reduction in single-occupancy vehicle trips, which were not in the 2013 Specific Plan.

The stated objectives of the Ravenswood Specific Plan Update are to:

1. Blend office, R&D, industrial, retail, and residential uses together with public open space, amenities, and civic uses to create a complete neighborhood defined by increased diversity of activity, mobility choices, numerous high-quality parks, and vibrant community-serving spaces in the Specific Plan area.
2. Create smaller, more walkable blocks through the addition of publicly accessible streets, greenways, alleys, and multi-use pathways.
3. Maintain key view corridors to the Bay through building setbacks, stepbacks, and linear greenway networks.
4. Evolve Bay Road into a series of vibrant, community-serving nodes that are lined with active business and civic spaces through the use of frontage design standards.
5. Improve circulation and mobility in the Plan area by increasing the interconnectedness of the network and increasing opportunities to access the Bay/waterfront. Promote walkability

through wide sidewalks covered with tree canopy, buffered bicycle facilities on key public streets, and a welcoming network of open space.

6. Enhance pedestrian and bicycle connections to the surrounding region, light rail, services, housing, and employers, creating a range of new public spaces and transportation options.
7. Achieve a 40 percent or greater reduction in single-occupancy vehicle trips to and from the plan area through improvements to transit service such as a public shuttle system and a multimodal connection to the planned Willow Village rail station.
8. Respect the existing single-family neighborhoods by requiring careful height and massing transitions for new buildings adjacent to single-family houses. Buildings would be smallest adjacent to existing neighborhoods and designed to respect the scale and character of the existing neighborhood.
9. Ensure that the local community benefits from new development, and that new developments specifically prioritize those benefits identified by the City.
10. Expand economic opportunity for residents through workforce development that provide consistent access to both skilled jobs (trainings and internships, subsidized spaces for new businesses) and attainable living wage jobs (funding and space for local merchants, vocational classes, PDR/fabrication/makerspaces & light industrial spaces).
11. Seek to address the current jobs-housing imbalance and maximize production of affordable housing units in the Plan area through a minimum linkage ratio between new housing units and office space that requires office developers to pay an Affordable Housing Commercial Linkage Fee.
12. Minimize displacement of existing residents by expanding the availability of income-restricted rental housing (with a focus on very low and low incomes as is appropriate for East Palo Alto, and to a lesser extent moderate incomes) and through support from developers for home ownership programs and funds.
13. Support the City's sustainability goals by promoting green buildings, aggressive water and energy conservation, and adherence to the City's Reach Code standards.
14. Broaden the City's tax base by attracting multiple large-scale commercial and/or industrial development projects.
15. Stabilize the City's finances and fiscal health over the long term through a significant increase over time (as development occurs) in the value of property taxes, Measure HH taxes, and other revenues collected in the Specific Plan area.
16. Facilitate the construction of the maximum amount of (deed-restricted) affordable housing by subsidizing it with linked non-residential development, in order to lessen indirect displacement and meet Regional Housing Needs Allocation (RHNA) housing goals and the General Plan Housing Element.
17. Enable substantial improvements to the utility systems and other infrastructure in the Specific Plan area, by maximizing the amount of development that can fund these upgrades.

2.5 Uses of the SEIR

The purpose of this SEIR is to identify potentially significant effects of the project on the physical environment, to determine the extent to which these effects could be reduced or avoided, and to identify feasible alternatives to the project. This SEIR is intended to be an informational document and is subject to public review, agency review, and consideration by the City. The SEIR itself does not determine whether a project should or will be approved.

This SEIR would provide decision-makers in the City, responsible agencies, and the general public with relevant environmental information to use in considering the project. Future development projects proposed under the Specific Plan would be examined in light of this SEIR to determine whether additional environmental review is needed.

If the proposed project is approved, the SEIR could be used by the City in conjunction with appropriate discretionary approvals, including, but not limited to, the following:

- Certification of the SEIR by City Council;
- Adoption of the Specific Plan Update by City Council;
- Adoption of General Plan Amendments to ensure required consistency between the General Plan and the Specific Plan Update;
- Adoption of a Zoning Ordinance Amendment incorporating the land use and development regulations and guidelines included in the Specific Plan Update .

Section 3.0 Environmental Setting, Impacts, and Mitigation

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

- | | | | |
|------|------------------------------------|------|-------------------------------|
| 3.1 | Impacts Not Evaluated in this SEIR | 3.11 | Land Use and Planning |
| 3.2 | Aesthetics | 3.12 | Noise |
| 3.3 | Air Quality | 3.13 | Population and Housing |
| 3.4 | Biological Resources | 3.14 | Public Services |
| 3.5 | Cultural Resources | 3.15 | Recreation |
| 3.6 | Energy | 3.16 | Transportation |
| 3.7 | Geology and Soils | 3.17 | Tribal Cultural Resources |
| 3.8 | Greenhouse Gas Emissions | 3.18 | Utilities and Service Systems |
| 3.9 | Hazards and Hazardous Materials | | |
| 3.10 | Hydrology and Water Quality | | |

The discussion for each environmental subject includes the following subsections:

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

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

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

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

The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence (CEQA Guidelines Section 15130(b)). To accomplish these two objectives, the analysis should include either a list of past, present, and probable future projects or a summary of projections from an adopted general plan or similar document (CEQA Guidelines Section 15130(b)(1)).

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

Table 3.0-1 identifies the approved (but not yet constructed or occupied) and pending projects in the project vicinity that are evaluated in the cumulative analysis.

Table 3.0-1: Cumulative Projects List		
Name and Location	Description	Distance to Proposed Project
East Palo Alto Projects within One Mile of the Plan Area		
760 Weeks Street Townhomes	The project proposes new construction of 10, three-story, townhome condos with 22 parking spaces on a vacant residential lot. (approved)	30 feet south of the Plan area boundary
2340 Cooley Avenue Residential	Vesting Condominium Tentative Map to allow eight air spaces units on one lot and Design Review Permit for the construction of eight-unit, three-story single-family attached townhouses and site improvements. (approved)	170 feet south of Weeks Street boundary
120-124 Maple Lane Townhomes	Four townhomes proposed on four vacant lots. (approved)	280 feet south of Weeks Street boundary
Residence, APN 063-265-300 Lot adjacent to 919 Runnymede Street	A residential development consisting of a two-unit for-sale project (duplex) on a vacant lot on Runnymede (approved and building permit has been finalized)	425 feet south of the Weeks Street boundary
1062 Runnymede Street Single Family Homes	Construction of four single-family residences with four attached ADUs (on file with the City)	500 feet west of the southeastern boundary
KIPP Esperanza School 1039 and 1063 Garden Street	The project is proposing to operate a public charter high school to ultimately serve up to 550 students in grades 9-12. This proposal is a conditional use permit to use an existing school facility with limited site improvements. The school is planning to open with 180 students and could expand enrollment up to 550 over a four-year period, with 16 full-time employees at opening and up to 44 at full enrollment. (approved)	685 feet southwest of the southeastern boundary
547 Runnymede Street Condominiums	The project would construct up to two- to three-story buildings for eight units (townhouse style condos). (on file with the City)	880 feet south of the southwestern boundary

Table 3.0-1: Cumulative Projects List		
Name and Location	Description	Distance to Proposed Project
Woodland Park Euclid Improvements (Residential) 2001 Manhattan Avenue	The project application was for an EIR (Certification), General Plan Amendment, Zoning and Development Code Changes, Conditional Use Permit, Tentative Parcel Map, Design Review, Tree Permit Removal Permit along with Grading, Building and other permits for construction to allow the construction of 605 multi-family units and the demolition of 161 existing units (160 of which are under rent control). Subsequent to the City's approval of this project, the applicant proposed to revise the project to reduce the number of proposed residential units from 605 units to 550 units. The City approved the 550-unit residential development in July 2024. t	0.7 miles south of the Weeks Street boundary
University Circle Phase II 1950 to 2050 University Avenue	An application for an Environmental Impact Report (EIR) (Certification), Design Review, Tree Permit Removal Permit along with Grading, Building and other permits to allow the construction of 180,000 square feet of new offices. (approved)	0.8 mile south of Weeks Street boundary
1105 O'Brien Drive Research and Development (R&D), Menlo Park	Construction of a new five-story R&D building, approximately 131,285 square feet in size, with a surface parking lot. The project would include an approximately 2,760 square-foot cafe on the ground floor of the R&D building. (on file with the City of Menlo Park)	0.4 miles west of the Plan area
SAFER Bay Levee	Construction of new levee to provide flood protection for the Cities of East Palo Alto and Menlo Park	Less than 50 feet east of the site

Table 3.0-1: Cumulative Projects List		
Name and Location	Description	Distance to Proposed Project
1075 O'Brien Drive (CS Bio), Menlo Park	<p>Construction of a new seven-story mixed-use building, approximately 100,000 square feet in size, with a restaurant and outdoor seating on the ground floor, six levels of office and research and development space, and a rooftop garden.</p> <p>A six-level parking structure would also be constructed to accommodate a portion of parking requirements for the development. A pedestrian bridge would connect the parking structure and the proposed building. (on file with the City of Menlo Park)</p>	0.4 miles west of the Plan area
1350 Adams Court (Tarlton) Life Science, Menlo Park	Construction of a new five-story R&D building, approximately 260,000 square feet in size, with an integrated parking structure. (approved)	0.4 miles north of the southwestern border of the Plan area
980-1030 O'Brien Drive Life Science, Menlo Park	Development of a new three-story R&D building, totaling approximately 67,688 square feet in size. The ground floor would include parking, building service and loading spaces, the main entry lobby, and commercial space. Levels 2 and 3 would be tenant space dedicated to life science and related uses. (on file with the City of Menlo Park)	0.5 miles west of the Plan area
1005 O'Brien Drive and 1320 Willow Road Life Science, Menlo Park	Development of two new life science buildings, totaling approximately 227,050 square feet, and a seven-story parking structure with 505 parking spaces. (on file with the City of Menlo Park)	0.5 miles west of the Plan area
1350-1390 Willow Rd., 925-1098 Hamilton Avenue, and 1005-1275 Hamilton Court (Willow Village), Menlo Park	Redevelopment of a 59-acre main project site with a mixed-use master plan with up to 1,730 dwelling units, up to 200,000 square feet of commercial retail uses, a 193-room hotel, approximately 1,600,000 square feet of offices and accessory uses. (approved)	0.6 miles northwest of the Plan area

Table 3.0-1: Cumulative Projects List		
Name and Location	Description	Distance to Proposed Project
1345 Willow Road (MidPen) Residential – 100 percent Affordable, Menlo Park	The proposed project would be comprised of a 140-unit, 100 percent Below Market Rate (BMR) multifamily affordable housing complex consisting of 66 one-bedroom, 50 two-bedroom, and 24 three-bedroom units. (approved and under construction)	0.7 miles west of the Plan area

For each resource area, cumulative impacts may occur over different geographic areas. For example, the project effects on air quality would combine with the effects of projects in the entire air basin, whereas noise impacts would primarily be localized to the surrounding area. The geographic area that could be affected by the proposed project varies depending upon the type of environmental issue being considered. Section 15130(b)(3) of the CEQA Guidelines states that lead agencies should define the geographic scope of the area affected by the cumulative effect. Table 3.0-2 provides a summary of the different geographic areas used to evaluate cumulative impacts.

Table 3.0-2: Geographic Considerations in Cumulative Analysis	
Resource Area	Geographic Area
Aesthetics	Specific Plan area and adjacent parcels
Air Quality	San Francisco Bay Area Air Basin
Biological Resources	Specific Plan area and adjacent parcels
Cultural Resources	Specific Plan area and adjacent parcels
Energy	Energy provider’s territory
Geology and Soils	Specific Plan area
GHGs	Planet-wide
Hazards and Hazardous Materials	Specific Plan area and adjacent parcels
Hydrology and Water Quality	San Francisco Creek Watershed
Land Use and Planning/Population and Housing	Citywide
Noise and Vibration	Specific Plan area and adjacent parcels
Public Services and Recreation	Citywide
Transportation/Traffic	Citywide
Tribal Cultural Resources	Specific Plan area and adjacent parcels
Utilities and Service Systems	Citywide

3.1 Resource Areas with No Impacts Evaluated in the 2013 Ravenswood Specific Plan EIR

The Specific Plan Update would increase the maximum allowable development (allowed under the 2013 Specific Plan) in the Specific Plan area. This section briefly addresses the resource areas that have no significant impacts resulting from the Specific Plan Update buildout, consistent with the conclusions of the 2013 Ravenswood Specific Plan EIR. These resource areas include agricultural and forestry resources, mineral resources, and wildfire, as described in further detail below.

3.1.1 Agriculture and Forestry Resources

3.1.1.1 *Environmental Setting and Impact Discussion*

The Specific Plan area is located in an urbanized area. The Specific Plan area and surrounding area do not meet the definition of forest land or timberland, and are not used for agricultural purposes.⁵ According to the San Mateo County Important Farmland 2018 Map and the San Mateo County Williamson Act FY 2006/2007 Map, the site and surrounding area are designated Urban and Built-up Land and are not the subject of a Williamson Act contract.⁶ Consistent with the conclusions in the 2013 Ravenswood Specific Plan EIR, no agricultural land, agriculturally zoned land, or land under Williamson Act contract is within a half-mile radius of the Specific Plan area.⁷ The Specific Plan update would have no impact on agriculture, forestland, or forestry resources. **(No Impact)**

3.1.2 Mineral Resources

3.1.2.1 *Environmental Setting and Impact Discussion*

The California Geological Survey has classified lands within the San Francisco -Monterey Bay Region into Aggregate and Mineral Resources Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board. East Palo Alto is mapped as MRZ-1, an area where no significant mineral or aggregate deposits are present.⁸ Therefore, consistent with the conclusions in the 2013 Ravenswood Specific Plan EIR, the proposed Specific Plan update would not result in the loss of known regionally or locally important mineral resources. **(No Impact)**

⁵ According to California Public Resources Code Section 12220 (g), Forest Land is land that can support 10-percent native tree cover and any species, including hardwoods, under natural conditions, and that allow for the management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality recreation, and other public benefits. According to California Public Resources Code Section 4526, "Timberland" means land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees.

⁶ California Natural Resources Agency. *San Mateo County Important Farmland 2018*. Published September 2019. SCH # 2014092027.

⁷ Ibid.

⁸ City of East Palo Alto. *Vista 2035 East Palo Alto General Plan*. October 2016.

3.1.3 Wildfire

3.1.3.1 *Environmental Setting and Impact Discussion*

The California Department of Forestry and Fire Protection (Cal Fire) is required by law to map areas of significant fire hazards based on fuels, terrain, weather, and other relevant factors. Referred to as Fire Hazard Severity Zones (FHSZ), these maps influence how people construct buildings and protect property to reduce risk associated with wildlands fires. The Specific Plan area is not located in a FHSZ.⁹ Consistent with the conclusions in the 2013 Ravenswood Specific Plan EIR, future development under the Specific Plan update would not result in wildfire impacts. Furthermore, future development would not conflict with any plans or policies related to wildfires. **(No Impact)**

⁹ California Department of Forestry and Fire Protection. "Fire Hazard Severity Zones Maps." Accessed July 29, 2022. <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>.

3.2 Aesthetics

3.2.1 Environmental Setting

3.2.1.1 *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 or mixed-use residential project, and
- The project is located on an infill site within a transit priority area.¹⁰

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

Vista 2035 East Palo Alto General Plan

Various policies in the City's General Plan have been adopted for the purpose of avoiding or mitigating aesthetic impacts from planned development within the City, including the following:

¹⁰ 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
<i>Land Use and Urban Design</i>	
1.1	Balanced land uses. Create a balanced land use pattern to support a jobs-housing balance, minimize traffic and vehicle miles traveled, reduce greenhouse gas emissions, and promote a broad range of housing choices, retail businesses, employment opportunities, cultural venues, educational institutions and other supportive land uses.
1.3	Coherent pattern of land use. Ensure that new development occurs in a unified and coherent pattern that avoids conflicts between uses and promotes job creation and fiscal stability, creating a high-quality environment for East Palo Alto residents.
1.4	Unique neighborhoods, districts and corridors. Enhance the unique character and identity of the City’s neighborhoods, districts and corridors through land use and design decisions. Allow policies and programs to be focused on each unique area of the City.
5.8	Streetscapes beautification. Proactively beautify existing streetscapes with pedestrian-scaled lighting, and drought-tolerant street trees and landscaping.
8.1	Gateways. Enhance the image of the community by creating high quality, artistic structural elements that provide city-wide consistency, substantially improving the appearance of entrances to the City along University Avenue, Bay Road, Willow Road, and Newbridge Street.
8.2	High quality construction and architecture. Require high-quality and long-lasting building materials on all new development projects in the City. Encourage innovative and quality architecture for new public and private projects.
9.2	Parking frontages. Continue to implement parking strategies and standards that ensure parking areas do not dominate street frontages and are screened from public views whenever possible.
9.4	Lighting. Strive for all new gateway features in commercial areas to be pedestrian-oriented attractively designed, compatible in design with other street furniture, and to provide adequate visibility and security.
9.10	Streetscape. Enhance the pedestrian experience through streetscape improvements that could include new street lighting, tree planting, undergrounding of utilities, and easement dedications to increase the size of the sidewalks and pedestrian amenities.
13.8	Viewsheds. Encourage developers to design projects that capitalize on views of adjacent natural resources. Require viewshed analysis as part of any potential development application. New development shall allow for the proposed east-west view corridor through Ravenswood north of Bay Road (see Specific Plan for details)

City of East Palo Alto Parks Master Plan

In March 2023, the City adopted the East Palo Alto Parks Master Plan to ensure the City’s residents have safe access to parks and open space, reduce the impacts of park facilities on the environment, encourage sustainable practices, and enhancing and improving safe and equitable access to all

natural preserves and resources. The Plan includes design guidelines for trails and privately owned public spaces to ensure new parks meets the community needs.

City of East Palo Alto Municipal Code

The City of East Palo Alto addresses visual considerations for development in various City documents, including the Municipal Code. The City Zoning Ordinance (Appendix A in the Municipal Code) sets forth specific design guidelines, height limits, building density, building design and landscaping standards, architectural features, and open space and setback requirements.

Lighting standards are regulated in Section 18.22.050 of the East Palo Alto Development Code. According to this section of the code, outdoor lighting shall not exceed the minimum levels for night-time safety, utility, security, productivity, enjoyment and commerce. All outdoor lighting shall be designed to curtail light pollution and protect the natural environment from adverse effects through shielding and aiming lighting to minimize light spill over and glare onto adjacent properties and roadways. Additionally, Section 18.22.050 specifies that all new non-residential development projects, such as the proposed project, shall limit lighting levels to:

- a. Five foot-candles for parking lots and other open spaces measured at all property boundaries
- b. Ten foot-candles along fronts of structures and along main drive aisles within the parking lots and
- c. Twenty foot-candles for high security areas (e.g., automated teller machines, motor vehicle display areas, and under vehicle fuel station canopies), but not including parking areas. Lighting levels shall be reduced to a maximum of 10 foot-candles after the close of business.

A photometric plan certified by a licensed lighting engineer may be required as part of a development application for project-specific projects in order to determine compliance if it is determined that there is a potential for a significant negative impact on surrounding land uses, adjacent roadways, or sensitive habitat areas.

3.2.1.2 *Existing Conditions*

The Specific Plan area is primarily made up of low-density industrial use, vacant parcels, and open space. There is also commercial retail use along Bay Road Avenue and residential use south of Bay Road Avenue within the Specific Plan area. The Specific Plan area consists of a mix of building types, heights, and architectural styles ranging from utilitarian warehouses with concrete, brick, metal sheets, and stucco facades, to mid-century and modern style single-family residences with low-pitched roofs, one-to two-car attached garages, and landscaped front lawns. The Specific Plan area is not located within a designated transit priority area.

The Specific Plan area in 2024 has a similar visual character as described in the 2013 Specific Plan EIR. Since the certification of the 2013 EIR, the Ravenswood Health Center, which is a two-story

concrete building located at 1885 Bay Road, has been constructed (in 2015) and the EPACenter, which is a modern two-story concrete, wood, and glass building, has been constructed (in 2021). All other uses in the Specific Plan area are the same.

The southern border of the Specific Plan area is residential in character and contains single-family residences interspersed with open fields and is bordered by single-family residences outside of the Specific Plan area (see Photos 1 through 3).

South of Bay Road on Pulgas Avenue, there are older industrial buildings, such as the R.E. Borrmann's Steel Company building, adjacent to newer development, such as the EPACenter building and two-story townhouses with (Photos 4 and 5).

The western boundary of the Specific Plan area is bordered by single-family residences (Photo 6). Bay Road from the west is fronted by single-family residences, multi-family apartments, and commercial retail buildings, and to the east transitions to larger parcels with industrial/warehouse buildings and vacant lots towards the San Francisco Bay (Photos 7 through 11). The eastern boundary of the Specific Plan area contains open views of the sky and is bordered by the Bay Trail, which contains expansive views of the San Francisco Bay (Photo 12).

North of Bay Road within the Specific Plan area is mostly industrial screened by metal fencing (Photos 13 and 14). Minimal landscaping is present in this area.

The northern portion of the Specific Plan area consists of undeveloped shoreline with expansive views of the San Francisco Bay (Photos 15 and 16).

The vantage points of each photograph are shown on Figure 3.2-1.

Scenic Highways and Roadways

There are no state-designated scenic highways in East Palo Alto. The closest officially designated State Scenic Highway to the project site is Interstate 280 from the San Mateo County line to State Route (SR) 17.¹¹

Light and Glare

Existing sources of light in the Specific Plan area include streetlights, vehicle headlights, exterior security lighting along buildings and in parking lots, interior lighting to illuminate nighttime operations, and illuminated signage. Glare is generally created by the reflection of natural (i.e., sunlight) and artificial light off existing windows and building surfaces. Sources of glare in the Specific Plan area include reflective windows from office buildings, parking lot lights, and vehicle headlights.

¹¹ California Department of Transportation. "Scenic Highways." Accessed April 6, 2020.
<https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>



Photo 1: View of a single-family residence and open field looking north on Runnymede Street.



Photo 2: View of residential development south of Weeks Street outside of the Specific Plan area.

PHOTOS 1 & 2



Photo 3: View of a single-family residence and vacant lot looking north on Weeks Street.



Photo 4: R.E. Borrmann's Steel Company building looking east on Pulgas Avenue.

PHOTOS 3 & 4



Photo 5: Newer townhouse development looking west on Pulgas Avenue.



Photo 6: Single-family residences on Bay Road looking east.

PHOTOS 5 & 6



Photo 7: View of the single-family residences on Bay Road adjacent to the Specific Plan western boundary.



Photo 8: Multi-family apartments on Bay Road.

PHOTOS 7 & 8



Photo 9: Commercial uses on Bay Road at the intersection of Clarke Avenue.



Photo 10: View of warehouses and the EPA Center looking west on Bay Road.

PHOTOS 9 & 10



Photo 11: Industrial/warehouses, vacant lots, and transformers on Bay Road looking east towards the San Francisco Bay.



Photo 12: View of the San Francisco Bay towards Cooley Landing Park.

PHOTOS 11 & 12



Photo 13: View of industrial uses on Pulgas Avenue north of Bay Road.



Photo 14: View of industrial uses on Demeter Street north of Bay Road.

PHOTOS 13 & 14

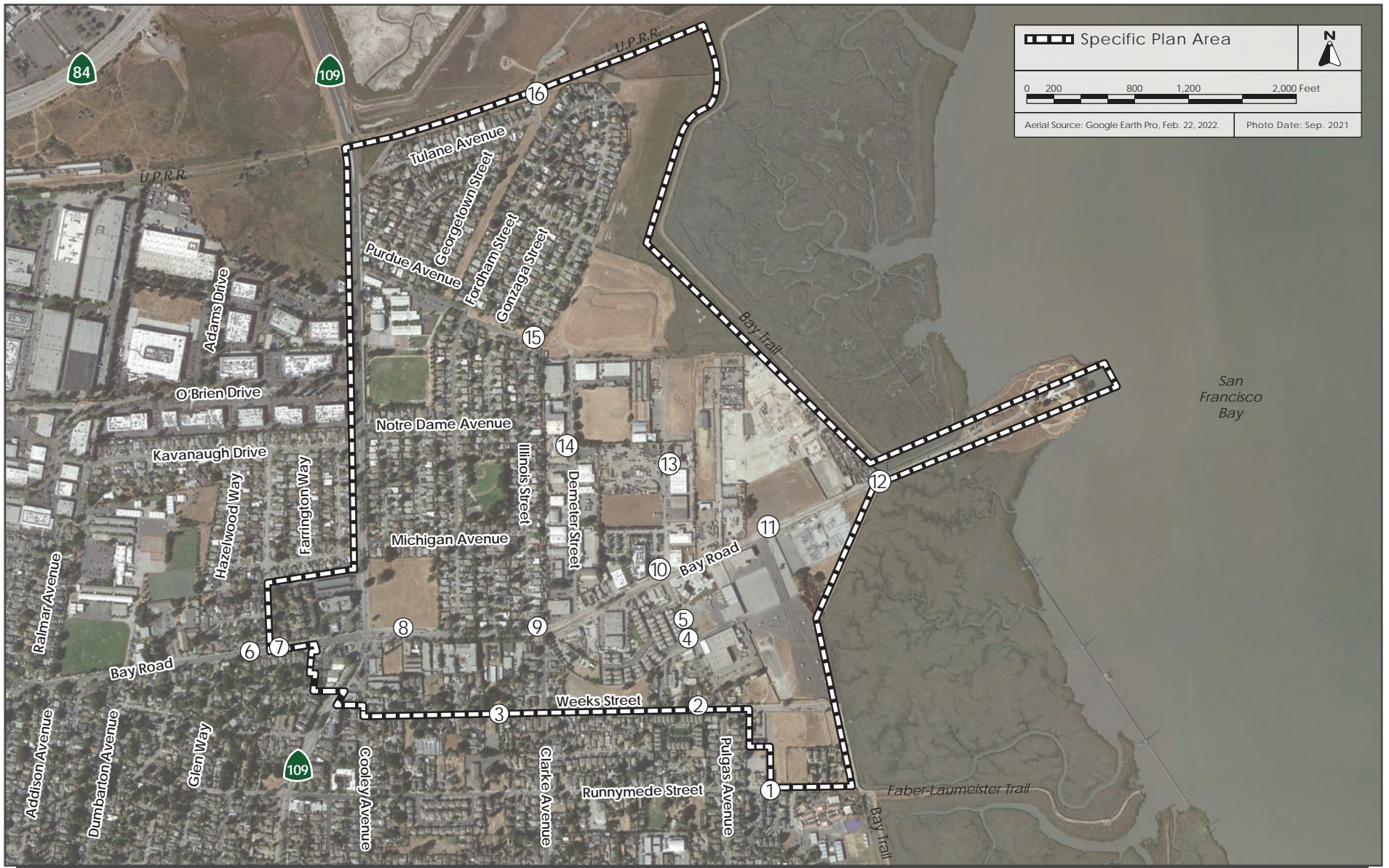


Photo 15: View of the Shoreline at the intersection of Illinois Street and Purdue Avenue.



Photo 16: View of the Bay Shore Trail and Union Pacific Railroad track.

PHOTOS 15 & 16



PHOTOGRAPH LOCATIONS

FIGURE 3.2-1

Location not within a Transit Priority Area

The nearest major transit stops to the Specific Plan area are the Palo Alto Caltrain Station (at 95 University Avenue, Palo Alto) and Menlo Park Caltrain Station (1120 Merrill Street, Menlo Park) approximately two miles southwest of the Specific Plan area. The Specific Plan area is not located within one half mile of a major transit stop. Therefore, the Specific Plan area is not within a TPA pursuant to SB 743.¹²

3.2.2 Impact Discussion

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

- 1) Have a substantial adverse effect on a scenic vista?
- 2) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
- 3) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings?¹³ If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?
- 4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

¹² Metropolitan Transportation Commission. "Transit Priority Areas (2021)." August 3, 2021. Accessed August 1, 2022. <https://www.arcgis.com/apps/mapviewer/index.html?layers=370de9dc4d65402d992a769bf6ac8ef5>

¹³ Public views are those that are experienced from publicly accessible vantage points.

3.2.2.1 *Project Impacts*

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

The 2013 Specific Plan EIR concluded that future development under the Specific Plan would comply with Specific Plan, General Plan, and San Francisco Bay Plan guidelines, standards, and policies that focused on ensuring that views were maintained, particularly views to the San Francisco Bay from Bay Road and the Ravenswood industrial areas. The 2013 EIR also concluded that with the implementation of these policies, the 2013 Specific Plan buildout would have a less than significant impact on scenic vistas.

As discussed in Section 3.2.1.2 Existing Conditions, there are no designated scenic vistas within the City. However, views of the San Francisco Bay, Santa Cruz Mountains, and East Bay Hills are available from the City, and specifically from the Ravenswood Specific Plan area. The site's proximity to the Bay offers expansive views of the Bay and East Bay Hills to the east, and intermittent views of the Santa Cruz Mountains to the west. The Specific Plan Update (under either development scenario) would increase the amount of allowable development within the Specific Plan area, which could result in interference with views of the Bay, East Bay Hills, and Santa Cruz Mountains.

Future development projects under the Specific Plan Update (under both development scenarios) would comply with General Plan Policies, such as the 2013 Specific Plan Policy 13.8 encouraging developers to design projects to enhance views of adjacent natural resources (i.e., the Ravenswood Open Space Preserve and San Francisco Bay east of the Ravenswood Specific Plan area) and requiring viewshed analysis as part of potential development applications. Detailed plans of the potential loop road are not available. Further project-level environmental review would be required at the time the details of the loop road are available and prior to the City's decision to implement that design. However, the loop road would be required to be designed to maintain the viewshed of the Bay.

Additionally, future development projects would comply with the proposed Specific Plan Update policies encouraging preservation of public views, including the following.

Proposed Specific Plan Policies:

- **Policy LU-3.7:** Use setbacks across the Plan Area to effectuate downward transitions in height and to ensure that new office and R&D buildings take advantage of potential views of the Bay.
- **Policy POS-1.10:** Maintain and/or enhance visual access to the water-front and Bay, by ensuring projects follow upper floor setback standards on Bay Road and the linear "view corridors" identified on (Specific Plan) Figure 6.

Based on building setback and view corridor standards described in Chapter 4 of the Specific Plan, future developments shall be required to enhance public views of the Bay's waterfront, through an upper floor step back zone for buildings fronting along Bay Road east of Tara Road, and through step back and building separation standards along major and minor "view corridors." Refer to Figure 3.2-2 which shows the view corridors the Specific Plan area.

As shown in Figure 2.3-2, the maximum building height allowed for Scenarios 1 and 2 would be 120 feet above the ground surface. Buildings under Scenario 2 may be slightly larger in scale than in Scenario 1, given Scenario 2 allows roughly 15 percent more development overall within the same Plan boundary. However, future projects under both scenarios would be required to comply with the above Specific Plan Update policies and standards in Chapter 4 of the Specific Plan Update.

The loop road and multi-use path would be flat and not significantly affect scenic views of the San Francisco Bay. If the SAFER Bay levee is constructed (under a separate project by another public agency), it is possible that the multi-use path would be located on top of the levee. The multi-use path would not result in an increase in height of the potential levee and, therefore, would not have a significant impact on scenic views of the Bay.

The above Specific Plan Update policies would promote scenic quality by limiting building heights and including setback requirements for future developments to protect viewsheds of the San Francisco Bay. Through compliance with General Plan policies and implementation of the Specific Plan policies listed above, the project (under either development scenario with or without the loop road) would not have a substantial adverse effect on a scenic vista.

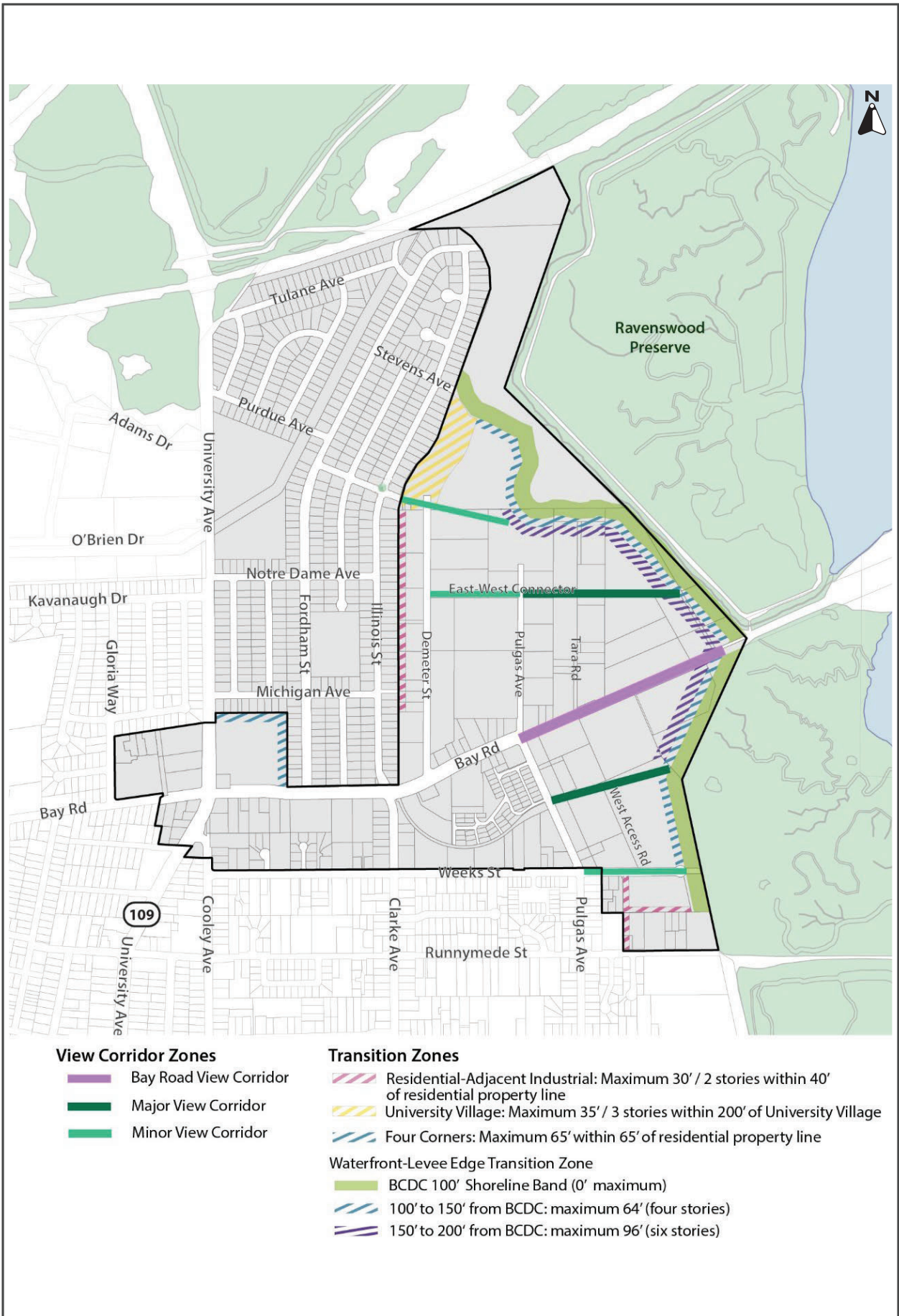
(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded there are no designated state scenic highways within or near the Specific Plan area and the Specific Plan would have no impact regarding views from state scenic highways.

Since the Specific Plan area is not located within or adjacent to a state scenic highway, future development (under either development scenario with or without the loop road) would not damage scenic resources within a state scenic highway.

(No Impact)



STEPBACK LOCATIONS AND VIEW CORRIDORS

FIGURE 3.2-2

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

The 2013 Specific Plan EIR concluded implementation of the Specific Plan would have a less than significant impact regarding visual character and quality with the compliance of future development with General Plan Policies and Specific Plans policies, standards, and guidelines. The 2013 Specific Plan EIR did not include an analysis of the possible aesthetic impacts associated with the loop road.

Future developments proposed under the Specific Plan Update would be located in urbanized areas as they would be surrounded by other development. A portion of the multi-use path (without the loop road) and the loop road (with the multi-use path) would be constructed in salt marsh habitat. No other development is proposed in the Specific Plan Update's wetland areas. Implementation of the Specific Plan Update (under either development scenario, with or without the loop road) would change the visual conditions of Ravenswood by increasing the amount of development allowed within the Specific Plan area. The Specific Plan Update includes policies that reduce future development impacts to the visual character of the area, particularly for future development (under Specific Plan Update Scenarios 1 and 2) adjacent to existing single-family residences, as described below.

Proposed Specific Plan Policies

- **Policy LU-3.4:** Require that all new developments immediately adjacent to existing homes be designed with abundant screening, landscaping, setbacks, and transitions in building height, scale, and character.
- **Policy LU-3.6:** Focus the tallest buildings at the far eastern end of Bay Road and in the employment core, farthest from single-family residential areas. Locate more moderately scaled buildings at 4 Corners, along central stretches of Bay Road, and as a buffer between new development and existing homes.

In addition, future development projects under the Specific Plan Update would comply with General Plan policies and Municipal Code regulations requiring that new development be established in a coherent pattern, beautify streetscapes, use high-quality building materials, and include compatible lighting. If implemented, the loop road would be designed in accordance with the Chapter 8 Streetscape Standards in the Specific Plan Update which includes standards related to street lane width, bicycle and pedestrian street lighting, and street trees. Future construction of the multi-use path would be required to comply with Specific Plan Update Policy MOB-1.5, which requires the use of paving materials that support both pedestrian and bicycle access. In addition, East Palo Alto Parks Master Plan (adopted by the City in March 2023) includes trail design standards such as standard #4 that requires trails to be paved (asphalt or compacted aggregate base) with soft shoulders (decomposed granite, or other approved material) and to be at least 10-foot wide, and standard #14 that requires trail alignments and plantings to be designed to optimize visibility and standard. With the implementation of the above policies and standards, the Specific Plan Update (Scenarios 1 and 2) would not conflict with applicable zoning and other regulations governing scenic quality.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded that with the implementation of Specific Plan policies, guidelines and standards to reduce light and glare impacts from future development, the Specific Plan would result in a less than significant impact related to light and glare.

As discussed under Section 3.1.1.2 Existing Conditions, existing sources of light in the Ravenswood Specific Plan area include streetlights, signage, security lighting, interior lighting used during nighttime, and vehicle headlights. Implementation of the Specific Plan Update would introduce new uses that would create additional sources of light in the Specific Plan area, including additional streetlights, exterior and interior lighting, and vehicle headlights. Implementation of the Specific Plan Update could result in additional light and glare.

Future development projects in the Specific Plan area (under either development scenario, with or without the loop road) would comply with Title 24 of the Building Standards Code, and Section 18.22.050 of the Municipal Code. Future development projects would be reviewed for consistency with Municipal Code requirements during the building permit review process. Compliance with Municipal Code regulations would ensure exterior building lighting does not create a new source of substantial light and glare. If implemented, the future loop road would be required to comply with pedestrian street lighting spacing and height policies in Chapter 8, Streetscape Standards of the Specific Plan Update to reduce the impacts of light and glare. The street lighting on the Specific Plan Update's loop road would be consistent with the proposed Specific Plan Update's street lighting standards for the loop road, which requires minimal street lighting to reduce impacts to adjacent land uses and a maximum height of lighting fixtures to be no greater than 20 feet tall (see Chapter 8 of the Specific Plan Update). The lighting on the multi-use path would comply with the East Palo Alto Parks Master Plan's trail design standards for lighting including Standard #24, which requires trail projects to design lighting systems and select fixtures to minimize light pollution/spillage. Lighting fixtures on trails/multi-use paths in the City are typically lower in height than street lighting. Details related to the height and design of these fixtures will be known at the time the project-level details and plans are available.]. The multi-use path would comply with City standards to reduce light and glare impacts. Therefore, implementation of the Specific Plan Update would not substantially adversely affect day or nighttime views in the area because of new sources of light and glare.

(Less than Significant Impact)

3.2.2.2 *Cumulative Impacts*

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

The 2013 Specific Plan EIR concluded the buildout of the 2013 Specific Plan would result in no cumulative aesthetics impacts since at the time the 2013 EIR was prepared, no developments adjacent to the Plan area were pending or approved.

The geographic area for cumulative aesthetics impacts is the Specific Plan area and adjacent parcels. As shown in Table 3.0-1, there is one project (approved) located adjacent to the Specific Plan area, which is proposed to construct 10 townhomes located on 760 Weeks Street. Other cumulative developments shown in Table 3.0-1 are located at greater distances, i.e. several hundreds of feet or more from the Specific Plan area and would not contribute to cumulative aesthetic impacts because they would not be viewed in the same viewshed as future projects implementing the Specific Plan. Future development under the Specific Plan Update adjacent to the 760 Weeks Street project, has the potential to result in combined aesthetic impacts with future developments of the Specific Plan Update. However, all future development projects occurring within East Palo Alto, including those proposed in the Specific Plan area, would be subject to design guidelines, lighting standards, and signage regulations. By requiring projects to adhere to these

measures and requirements, aesthetic impacts would be minimized or reduced. Future development projects in the City would undergo individual review to ensure that site selection, building materials, heights, and lighting is implemented in a manner that does not result in significant visual impacts. Future development projects would be required to obtain City design approval, prior to issuance of any demolition or building permits, which involves review of development applications for conformance with City plans, ordinances, and policies related to zoning, urban design, and CEQA. For these reasons, the cumulative aesthetics impacts would be less than significant.

(Less than Significant Cumulative Impact)

3.3 Air Quality

The following discussion is based, in part, on an Air Quality/Greenhouse Gas Assessment prepared for the Specific Plan Update by Illingworth & Rodkin, Inc. on May 21, 2024. The Air Quality/Greenhouse Gas Assessment is included as Appendix B of this Draft SEIR.

3.3.1 Environmental Setting

3.3.1.1 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. An overview of the sources of criteria pollutants and their associated health are summarized in Table 3.3-1. The most commonly regulated criteria pollutants in the Bay Area are discussed further below.

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

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.

Table 3.3-1: Health Effects of Air Pollutants		
Pollutants	Sources	Primary Effects
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. 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 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

¹⁵ California Air Resources Board. “Overview: Diesel Exhaust and Health.” Accessed July 29, 2022. <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>.

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 elementary schools.

3.3.1.2 *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.

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.

Regional

2017 Clean Air Plan

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

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.

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

Local

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating air quality impacts resulting from planned development within the City, including the following:

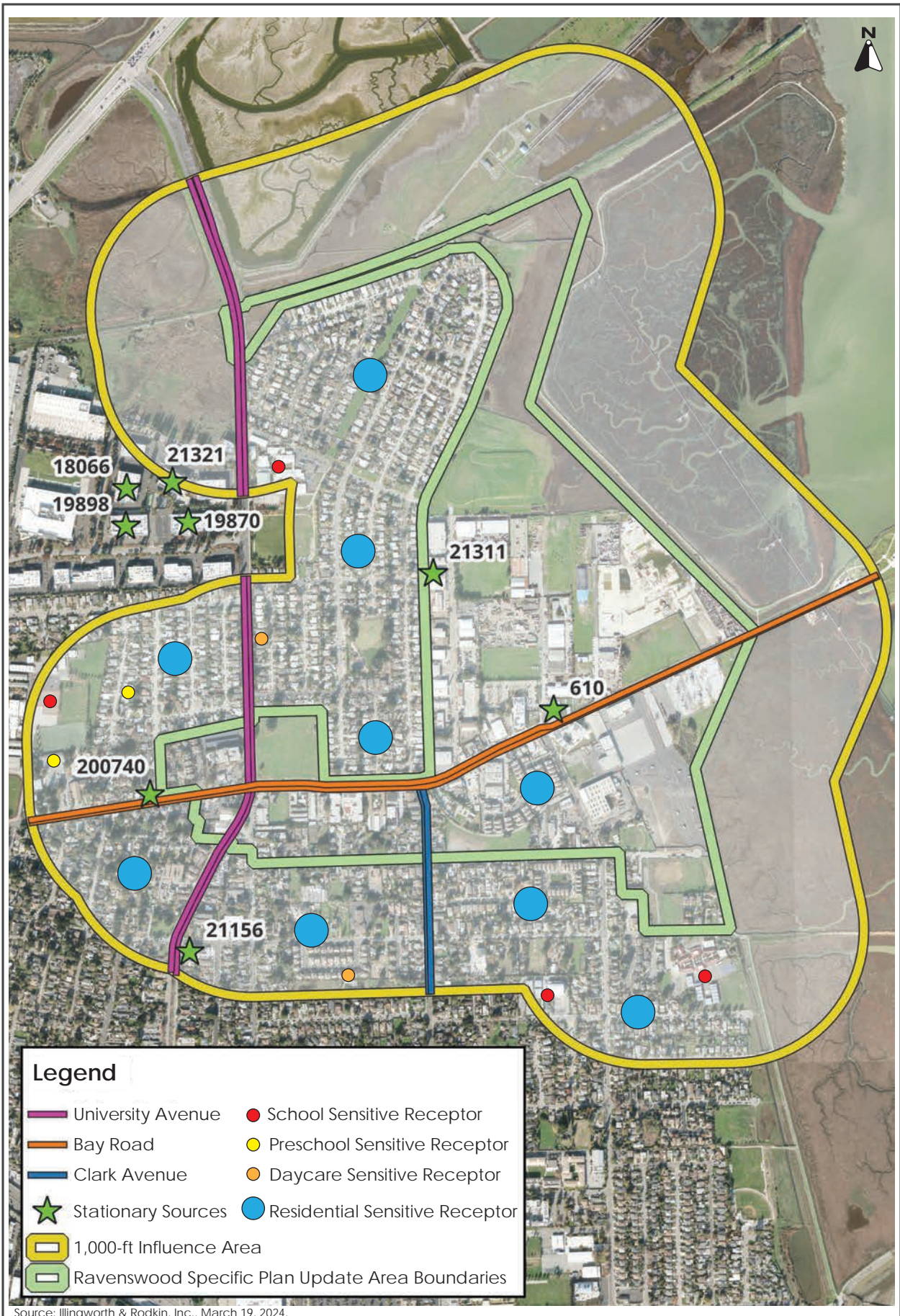
Policy	Description
<i>Health and Equity</i>	
10.7	Other mobility strategies. Implement the strategies in the Transportation Element that improve air quality. These include transit, walking, biking, and Transportation Demand Management Strategies.
<i>Parks, Open Space, and Conservation</i>	
6.2	New tree planting. Prioritized the planting of new trees on sites designated as sensitive receptors (e.g., schools, health centers) or that are in close proximity to sources of air pollution such as freeways and heavily traveled road corridors.

3.3.1.3 *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. 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. 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.

Stationary and Mobile Source Emissions

Within the Specific Plan area, the locations of existing industrial and treatment plant sources of TACs and other air pollutants are shown on Figure 3.3-1. BAAQMD frequently updates the permitted stationary sources as development and stationary sources change or move. Roadways including University Avenue, Bay Road Avenue, and Clarke Avenue are mobile sources of TACs.



NEARBY SENSITIVE RECEPTORS AND TAC SOURCES

FIGURE 3.3-1

Sensitive Receptors

Sensitive receptors include locations where sensitive populations would be present for extended periods of time (i.e., chronic exposures) such as residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools. The existing developments in the Specific Plan area include single-family and multi-family residential, retail, medical office, light and general industrial, and civic/institutional land uses. Sensitive receptors located within the Specific Plan area and within 1,000 feet of the Plan area, which include residences to the west and south, are shown on Figure 3-3-1.

3.3.2 Impact Discussion

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

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

3.3.2.1 *Project Impacts*

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

The 2013 Specific Plan EIR concluded that the Specific Plan would increase vehicle use at a greater rate than population growth, resulting in greater regional emissions of nonattainment air pollutants (or their precursors) than assumed in the then current Air Quality Plan (2010 CAP), resulting in significant unavoidable impacts regarding consistency with the Clean Air Plan.

Plan-Level Consistency

The BAAQMD CEQA Air Quality Guidelines set forth criteria for determining consistency with the 2017 CAP. A project is considered generally consistent with the CAP if it: (1) supports the primary goals of the 2017 CAP; (2) includes relevant control measures; and (3) does not interfere with implementation of CAP control measures.

The goals of the 2017 CAP are: 1) protecting public health and 2) protecting the climate. An analysis of the project's consistency with the 2017 CAP goal of protecting the climate is discussed separately in Section 3.6 Greenhouse Gas Emissions. Public health is protected by progress towards attaining

air quality standards for criteria air pollutants and eliminating health risk. BAAQMD has different thresholds of significance for protecting public health when evaluating land use plans versus projects. The BAAQMD Air Quality Guidelines do not have thresholds related to direct and indirect regional criteria pollutant emissions resulting from plan implementation; rather, they only require emissions computations for project-level analysis. An assessment of the future Specific Plan Update development under both the BAAQMD plan- and project-level thresholds is provided below.

The Specific Plan Update (under both development scenarios) would result in increased jobs and population growth in the Specific Plan area and thus increased VMT compared to existing conditions and growth assumed in the 2013 Specific Plan EIR (refer to Table 3.3-2, below). According to the BAAQMD CEQA Guidelines, a land use plan would conflict with implementation of the 2017 CAP if it would result in development that would exceed clean air plan projections, does not support the primary goals of the 2017 CAP or would interfere with implementation of 2017 CAP control measures.

The BAAQMD thresholds of significance for protecting public health for land use plans such as the proposed Specific Plan are:

- Consistency with Current Air Quality Plan control measures, and
- Projected VMT or vehicle trip increase is less than or equal to projected population increase.

Consistency with 2017 CAP Control Measures

As a part of the 2017 CAP, BAAQMD identified CAP control measures which include specific actions to reduce emissions of air and climate pollutants from emission sources. Table 3.3-2 includes applicable 2017 CAP control measures and a discussion of how the Specific Plan Update would be consistent with the CAP control measures to reduce automobile trips, and conserve energy. Future development under the Specific Plan Update would comply with existing regulations and Specific Plan policies that support and are consistent with applicable 2017 CAP control measures. As such, the Specific Plan Update does not interfere with implementation of the 2017 CAP control measures.

Table 3.3-2: Specific Plan Consistency with BAAQMD Control Strategy Measures	
Applied BAAQMD Control Strategy Measures	Consistency
Transportation Control Measures	
TR1: Clean Air Teleworking Initiative	Consistent. Per the City’s Transportation Demand Management (TDM) Ordinance, adopted in 2021, future developments under the Specific Plan update would be required to include TDM measures that would reduce daily trips by 40 percent. TDM Plans could include measures such as increased support for telecommuting. Supported by General Land Use and Urban Design policy LU 2.19.
TR2: Trip Reduction Programs	Consistent. As stated above, future developments under the Specific Plan update would be required to include TDM measures that would reduce daily trips by 40 percent. The Specific Plan Update would include bus stops that would allow for shuttles provided by a Transportation Management Agency (TMA). The TMA will fund and operate a shuttle program that connects employees and residents with nearby commercial, transit, and employment centers and provides long-haul service to housing and employment centers in other communities, which would reduce single-occupancy vehicle trips. Supported by General Plan Transportation policies T-3 3.1 T-5 5.1, 5.2, 5.3, 5.6, 5.9, T-7 7.1, 7.2, and T-8 8.1, 8.2 as well as Land Use and Urban Design policy LU-2 2.19.
TR5: Transit Efficiency and Use	Consistent. While this is mostly a regionally implemented control measure, the Plan area would include bus stops that allow for shuttle or other micro transit services provided by SamTrans, a TMA, or private provider. The Specific Plan update would provide new connections that would enable vehicles, bicyclists, and pedestrians to travel to and from the potential Dumbarton Rail line at the northern edge of the Plan area. Supported by General Plan Land Use and Urban Design policies LU-13 13.12, LU-17 17.10, as well as Transportation policies T-5 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.8, and 5.9 and T-7 7.3. Also supported by CAP measure TL-2.1.
TR7: Safe Routes to Schools and Safe Routes to Transit	Consistent. The Specific Plan provides a bicycle and pedestrian network that is safe, connected and comfortable for all travelers and to create a public transit network that is convenient and connected. Future projects would be designed to facilitate safe traffic flow and promote school and bicycle safety and safe access to transit. Supported by General Plan Land Use and Urban Design policy LU-8 8.8 and Health and Equity policies HE-5 5.1, 5.2, 5.4. Also supported by Transportation policies T-1 1.3, T-4 4.1 and CAP measure TL-3.2
TR8: Ridesharing, Last-Mile connection	Consistent. The Specific Plan would require future projects to implement a TDM program, which may include measures such as carpool and/or vanpools incentives. Supported by General Plan Transportation policy T-5 5.4 and CAP measure TL-2.1 and TL-2.2.

Table 3.3-2: Specific Plan Consistency with BAAQMD Control Strategy Measures	
Applied BAAQMD Control Strategy Measures	Consistency
Transportation Control Measures	
TR9: Bicycle and Pedestrian Access and Facilities	<p>Consistent. Implementation of the Specific Plan would result in a walkable environment and ensure clear and safe bicycle and pedestrian circulation through implementation in accordance with Specific Plan mobility design standards.</p> <p>Supported by General Plan Land Use and Urban Design policies LU-2 2.15, LU-8 8.8, LU-9 9.1, LU-17 17.3, 17.5, 17.13, as well as Transportation policies T-2 2.2, 2.6, 2.18, T-3 3.3, T-4 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, and 4.8. Also supported by CAP measure TL-3.1.</p>
TR10: Land Use Strategies	<p>Consistent. The Specific Plan Update is consistent with the goals of Plan Bay Area by proposing mixed-use residential development, creating employment opportunities within the City and regionally, providing affordable housing options, increasing connectivity by improving transportation infrastructure, and conserving natural resources and contributing to additional parks/open space and recreation areas.</p> <p>Supported by General Plan Land Use and Urban Design policies LU-1 1.1, 1.5, 1.6 as well as Health and Equity policy HE-10 10.1. Also supported by CAP measures TL-1.1, TL-1.2.</p>
TR13: Parking Policies	<p>Consistent. Future projects would be required to implement TDM measures such as providing unbundled parking spaces.</p> <p>Supported by General Plan Transportation policies T-6 6.1, 6.2, 6.3, 6.4, T-9 9.2, 9.7 as well as Land Use and Urban Design policies LU-2 2.10, LU-13 13.10, and LU-14 14.11.</p>
Building Control Measures	
BL1: Green Buildings	<p>Consistent. Future projects under the Specific Plan would be constructed consistent with CALGreen and Title 24 requirements.</p> <p>Supported by General Plan Land Use Urban Design policies LU-4 4.5 as well as Parks Open Space, and Conservation policies POC-7 7.1, 7.2, 7.4, POC-8 8.4, 8.8, 8.9, 8.10, 8.11 along with CAP measures E-1.1, E-1.2, and MU-1.3.</p>
BL2: Decarbonize Buildings	<p>Consistent. Future commercial and residential developments under the Specific Plan would be included in the Peninsula Clean Energy (PCE) service area and can choose to have 50 to 100 percent of their electricity supplied from carbon-free and renewable sources. Future developments would automatically be enrolled in the ECOplus plan, which generates its electricity from 85 percent carbon-free sources, with at least 50 percent from renewable sources. Future developments also have the option to enroll in the ECO100 plan, which generates its electricity from 100 percent carbon-free, renewable sources.</p> <p>Supported by General Plan Land Use and Urban Design policies LU-4 4.5, as well as Parks, Open Space and Conservation policies POC-7 7.1, 7.2, 7.3, 7.4,</p>

Table 3.3-2: Specific Plan Consistency with BAAQMD Control Strategy Measures	
Applied BAAQMD Control Strategy Measures	Consistency
Transportation Control Measures	
	and POC-8 8.4, 8.9. Also supported by CAP measures E-1.4, E-2.1, E-2.2, MU-1.2, and MU-1.3.
BL4: Urban Heat Island Mitigation	Consistent. Future development would also be subject to provisions for reduced parking standards, and constructed in compliance with CALGreen, which requires installation of cool roofs for commercial buildings. Supported by General Plan Parks, Open Space and Conservation policies POC-8 8.2, 8.3 as well as CAP measure TL-4.1.
Natural and Working Lands Control Measures	
NW2: Urban Tree Planting	Consistent. Future projects under the Specific Plan would provide a well-shaded environment defined by consistent, tree plantings along streets and a variety of trees in parks and open space areas. Supported by General Plan Land Use and Urban Design policies LU-9 9.9, 9.10, LU-15 15.2 as well as Parks, Open Space and Conservation policies POC-6 6.2, 6.3, 6.4, and POC-8 8.2.
Waste Management Control Measures	
WA4: Recycling and Waste Reduction	Consistent. Future projects under the Specific Plan shall provide on-site recycling services and recycle and/or salvage for reuse a minimum of 75 percent of nonhazardous construction and demolition waste. Supported by General Plan Health and Equity policy HE-10 10.5, as well as Parks, Open Space and Conservation policies POC-8 8.12, POC-9 9.11 and Infrastructure, Services and Facilities policies ISF-4 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9. Also supported by CAP measures W-1.1, W-2.1, W-2.2, and W-3.1.
Water Control Measures	
WR2: Support Water Conservation	Consistent. Future projects would be constructed consistent with CALGreen and Title 24 requirements, which require incorporation of water conservation measures. Supported by General Plan Infrastructure, Services, and Facilities ISF-1 1.2, 1.4, 1.5, 1.8, ISF-2 2.1, 2.2, 2.4, 2.6, 2.8, 2.9, 2.10, 2.11, 2.12, 2.13 as well as CAP Measure E-1.3.

Consistency with Clean Air Plan Projections

A plan's consistency with 2017 CAP projections is determined by comparing the projected population growth to the projected increase in VMT. If a plan would increase VMT at a rate greater than the projected population growth, it would exceed 2017 CAP projections. Table 3.3-3 shows the population and traffic conditions with and without the proposed Specific Plan Update (under both development scenarios). The population and employment VMT in Table 3.3-3 is based on the VMT results from Table 3.16-9.

Table 3.3-3 Specific Plan Update Traffic and Population Projections				
Scenario	Population	Jobs	Service Population	Daily VMT (without the loop road)¹
Existing Development	32,278	4,626	36,904	466,222
Additional development allowed under the Adopted 2013 Specific Plan	2,894	5,366	8,260	118,243
<i>Rate of Growth</i>			+22%	+25%
Additional development allowed under the Proposed Ravenswood SPU Scenario #1	4,519	9,914	14,433	191,460
<i>Rate of Growth</i>			+39%	+41%
Additional development allowed under the Proposed Ravenswood SPU Scenario #2	5,352	11,609	16,691	216,157
<i>Rate of Growth</i>			+45%	+46%
¹ For simplicity and for consistency with the roadway network under existing conditions, the VMT reported under existing plus Specific Plan Update conditions assumes development proceeds without a loop road scenario (which provides a conservative estimate since daily VMT is slightly higher without the loop road compared to the loop road scenario).				

As shown in Table 3.3-3, the VMT for the 2013 Specific Plan grows at a rate of 25%, which exceeds the 22% rate of service population growth, the VMT for Scenario #1 grows at a rate of 41%, which exceeds the 39% rate of service population growth, and the VMT for Scenario #2 grows at a rate of 46%, which exceeds the 45% rate of service population growth. Therefore, the implementation of the Specific Plan Update (under both development scenarios), as well as the 2013 Specific Plan, would conflict with the 2017 Clean Air Plan, resulting in a significant unavoidable impact, consistent with the conclusions of the 2013 Specific Plan EIR.

The Specific Plan Update would support the primary goals of the 2017 CAP because it promotes a mix of uses that include employment and services near new higher density housing. The Specific Plan Update would add housing to the area that is currently predominantly commercial uses. Furthermore, in addition to Specific Plan policies, future development allowed under the proposed Specific Plan Update (under both development scenarios) would be required to comply with

applicable General Plan policies and CAP strategies designed to reduce automobile and energy use and help the City achieve its GHG reduction goals. These goals are in line with the 2017 CAP control measures. Therefore, implementation of the proposed Specific Plan Update would support the primary goals of the 2017 CAP and would not interfere with implementation of the control measures. Nonetheless, because the Specific Plan Update, under both development scenarios, would exceed 2017 CAP projections by causing the rate of growth in VMT to exceed the rate of growth in population and jobs, impacts would be significant and unavoidable. **(Significant Unavoidable Impact)**

Project-Level Consistency

The BAAQMD thresholds of significance for protecting public health for future development projects under the proposed Specific Plan pertain to construction and operational criteria air pollutant emissions, fugitive dust, and health risk and are identified in Table 3.3-1 below.

Table 3.3-14: BAAQMD Air Quality Significance Thresholds			
Pollutant	Construction Thresholds	Operation Thresholds	
	Average Daily Emissions (pounds/day)	Annual Daily Emissions (pounds/day)	Annual Average Emissions (tons/year)
Criteria 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 million	
Incremental Annual PM _{2.5}	0.3µg*/m ³	0.8 µg/m ³ (average)	
Hazard Index	<1.0	<10.0	
<u>Note:</u> µg = micrograms			

Construction Criteria Pollutant Emissions

The 2013 Specific Plan EIR did not include an evaluation of construction criteria pollutant emissions impacts. Buildout of the proposed Specific Plan Update (under both development scenarios) would result in temporary emissions from construction activities (through 2040) associated with development including demolition, site preparation, grading, asphalt paving, building construction, and architectural coatings. 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 in the vicinity. 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. Worker commute trips and architectural coatings are the predominant sources of ROG emissions. Depending on the intensity of construction activity per day and over the course of a given year, emissions of criteria pollutants during construction of future development allowed under the proposed Specific Plan update could result in a significant impact.

Impact AIR-1: Future projects under the Specific Plan Update could result in construction criteria pollutant emissions above BAAQMD thresholds resulting in a cumulatively considerable contribution to a significant regional air quality impact.

Mitigation Measure: Future projects (under both development scenarios, with and without the loop road) shall implement the following measures to reduce the impacts of construction criteria pollutant emissions to a less than significant level:

MM AIR-1.1: Construction criteria pollutant and TAC quantification shall be required for individual projects developed under the Specific Plan Update once construction equipment and phasing details are available through modeling to identify impacts and, if necessary, include measures to reduce emissions below the applicable BAAQMD construction thresholds. Reductions in emissions can be accomplished through, not limited to, the following:

- All construction equipment larger than 25 horsepower used at the future development sites for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards for NO_x and PM (PM₁₀ and PM_{2.5}), if feasible, otherwise,
 - If use of Tier 4 equipment is not available, alternatively use equipment that meets U.S. EPA emission standards for Tier 2 or 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 85-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.
 - Special equipment that cannot meet the above requirements must be approved as exempt by the City after considering reasons for requesting an exemption.
 - Use electric equipment such as aerial lifts, air compressors, cement mortar mixers, concrete/industrial saws, cranes, and welders.
- Diesel engines, whether for off-road equipment or on-road vehicles, shall not be left idling for more than two minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit.
 - Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment.
 - Utilize low volatile organic compound (VOC) (i.e., ROG emitting) coatings, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3; Architectural Coatings), for at least 80 percent of all residential and nonresidential interior paints and 80 percent of exterior paints. This includes all architectural coatings applied during both construction and reapplications throughout the project's operational lifetime. At least 80 percent of coatings applied must meet a "super-compliant" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used. Examples of "super-compliant" coatings are contained in the South Coast Air Quality Management District's website.¹⁷

Implementation of mitigation measure MM AIR-1.1, which requires use of Tier 4 equipment or equipment that meets emission standards for Tier 2 or 3 engines with particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices, electric equipment, and low VOC coatings during construction of future projects should be sufficient in most instances to reduce construction criteria pollutant emissions to a less than significant level. If the modeling of construction activity required by MM AIR-1.1 shows an individual project would exceed one or more of the BAAQMD construction thresholds, the project construction activity would either be modified to generate emissions that remain below the thresholds, or the project would require supplemental CEQA review to disclose the significant construction emissions, and consider

¹⁷ SCAQMD: <http://www.aqmd.gov/home/regulations/compliance/architectural-coatings/super-compliant-coatings>

mitigation measures and alternatives that would avoid the significant construction air quality impact. **(Less than Significant Impact with Mitigation Incorporated)**

Operational Criteria Pollutant Emissions

The 2013 Specific Plan EIR did not include a quantitative analysis of operational criteria pollutant emissions. Operation of existing and future development allowed under the proposed Specific Plan Update would generate criteria air pollutant emissions from automobiles driven by future residents, employees, customers, and vendors and evaporative emissions from architectural coatings and maintenance products (classified as consumer products). CalEEMod Version 2020.4.0 was used to estimate emissions from operation of the existing emissions within the Specific Plan area, operational emissions at full buildout of the adopted 2013 Specific Plan, and operational emissions at full buildout of the proposed Specific Plan Update (under both development scenarios) with and without the loop road (refer to Tables 3.3-4 and 3.3-5).

Table 3.3-4: Operational Annual Emissions (Tons per Year)				
Scenario	ROG	NO_x	PM₁₀	PM_{2.5}
<i>Emissions Per Year (Tons)</i>				
Unmitigated 2040 (Adopted 2013 Specific Plan with Loop Road)	19.98	10.07	11.42	2.36
<i>BAAQMD Project-Level Threshold (tons/year)</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Exceed Project-level Thresholds? (unmitigated)	Yes	Yes	No	No
Unmitigated 2040 (Proposed Specific Plan Update Scenario #1 with Loop Road)	34.22	16.80	18.75	3.90
<i>BAAQMD Project-Level Threshold (tons/year)</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Exceed Project-level Thresholds? (unmitigated)	Yes	Yes	Yes	No
Unmitigated 2040 (Proposed Specific Plan Update Scenario #1 no Loop Road)	34.28	16.89	18.85	3.93
<i>BAAQMD Project-Level Threshold (tons/year)</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Exceed Project-level Thresholds? (unmitigated)	Yes	Yes	Yes	No
Unmitigated 2040 (Proposed Specific Plan Update Scenario #2 with Loop Road)	39.58	19.10	21.19	4.43
<i>BAAQMD Project-Level Threshold (tons/year)</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Exceed Project-level Thresholds? (unmitigated)	Yes	Yes	Yes	No
Unmitigated 2040 (Proposed Specific Plan Update Scenario #2 no Loop Road)	39.62	19.19	21.28	4.45
<i>BAAQMD Project-Level Threshold (tons/year)</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Exceed Project-level Thresholds? (unmitigated)	Yes	Yes	Yes	No
Source: Illingworth & Rodkin, Inc. Ravenswood/4 Corners TOD Specific Plan Update Air Quality & Greenhouse Gas Assessment, East Palo Alto, California. May 21, 2024.				

Table 3.3-5: Operational Daily Emissions (Pounds per Day)				
Scenario	ROG	NO_x	PM₁₀	PM_{2.5}
<i>Annualized Daily Emissions (pounds/day)</i>				
Unmitigated 2040 (Adopted 2013 Specific Plan with Loop Road)	109.49	55.18	62.58	12.94
<i>BAAQMD Project-Level Threshold (pounds/day)</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceed Project-level Thresholds? (unmitigated)	Yes	Yes	<i>No</i>	<i>No</i>
Unmitigated 2040 (Proposed Specific Plan Update Scenario #1 with Loop Road)	187.53	92.04	102.72	21.39
<i>BAAQMD Project-Level Threshold (pounds/day)</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceed Project-level Thresholds? (unmitigated)	Yes	Yes	Yes	<i>No</i>
Unmitigated 2040 (Proposed Specific Plan Update Scenario #1 no Loop Road)	187.83	92.56	103.26	21.51
<i>BAAQMD Project-Level Threshold (pounds/day)</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceed Project-level Thresholds? (unmitigated)	Yes	Yes	Yes	<i>No</i>
Unmitigated 2040 (Proposed Specific Plan Update Scenario #2 with Loop Road)	216.85	104.67	116.13	24.26
<i>BAAQMD Project-Level Threshold (pounds/day)</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceed Project-level Thresholds? (unmitigated)	Yes	Yes	Yes	<i>No</i>
Unmitigated 2040 (Proposed Specific Plan Update Scenario #2 no Loop Road)	217.11	105.17	116.59	24.36
<i>BAAQMD Project-Level Threshold (pounds/day)</i>	<i>54</i>	<i>54</i>	<i>82</i>	<i>54</i>
Exceed Project-level Thresholds? (unmitigated)	Yes	Yes	Yes	<i>No</i>
Source: Illingworth & Rodkin, Inc. Ravenswood/4 Corners TOD Specific Plan Update Air Quality & Greenhouse Gas Assessment, East Palo Alto, California. May 21, 2024.				

As shown in Tables 3.3-4 and 3.3-5, under buildout of the adopted 2013 Specific Plan, ROG and NO_x emissions would exceed the BAAQMD project-level thresholds, but all other criteria pollutant emissions would be below their respective thresholds.

Impact AIR-2: At buildout for Scenarios 1 and 2, Specific Plan Update operational criteria emissions would exceed the BAAQMD project-level significance thresholds, for both average daily and total annual emissions, for ROG, NO_x, and PM₁₀ emissions, with or without the loop road, resulting in a cumulatively considerable contribution to a significant regional air quality impact.

Scenario 2 (without the loop road) would generate the highest emissions among all of the various scenarios. The emissions for Scenario 1 would be approximately 15 percent less than Scenario 2, given Scenario 1 proposes about 15% less development as a whole compared to Scenario 2. The

2013 Specific Plan, which allows roughly half of the development now proposed in the Specific Plan Update, would have emissions approximately 50 percent lower than emissions from the buildout of Scenario 2.

Vehicle emissions account for approximately 95 percent of operational criteria pollutant emissions for all scenarios. The Specific Plan Update's operational vehicle ROG, NO_x, and PM₁₀ emissions from office, commercial, and residential uses would be reduced to the maximum extent feasible through future projects' implementation of TDM measures that would reduce vehicle trips. The Specific Plan area will include bus stops that would allow for shuttles provided by a Transportation Management Agency (TMA). Future developers under the Specific Plan Update would be required to implement the following Specific Plan Update TDM requirements to reduce vehicle trips and associated emissions.

Proposed Specific Plan Update 8-4.1: General TDM Requirements

- **Standard 1: 40 percent Trip Reduction Requirement.** Per the City's TDM ordinance, the daily trips generated by new developments in the Plan Area are required to be 40 percent below trip estimates developed based on rates published in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition.
- **Standard 2: Combined Office and R&D Trip Rates.** The same average daily trip rate of 10.96 vehicle trips/1,000 square feet will be assumed for all uses in this employment category, since the Plan allows for flexibility in the mix of general office space, research and development space, and life science space, and because these uses have similar vehicle trip characteristics.

Proposed Specific Plan Update 8-4.2 TMA Requirements

- **Standard 1:** Future developers under the Specific Plan Update shall establish a privately funded and administered Transportation Management Agency (TMA) to achieve trip reduction goals set by the City's TDM Ordinance.

Proposed Specific Plan Update 8-4.3 Required TDM Elements

- **1. Shuttle Program:** The TMA shall fund and operate a shuttle program that connects employees and residents with nearby commercial, transit, and employment centers and provides long-haul service to housing and employment centers in other communities.

Other required TDM elements include identification of a TDM Coordinator that provides information about transit option and passes, and design element such as bicycle parking, showers and lockers, preferential carpool/vanpool parking, drop off areas for shuttles and rideshare near front doors for non-residential developments and bicycle parking, lighted pedestrian paths connecting to sidewalks throughout the development, and package drop-off rooms for residential

developments. Additional TDM elements and TMA are included in Chapter 8 of the Specific Plan Update.

The City's TDM Ordinance and Specific Plan Update standards above require new development projects to achieve a 40 percent reduction in vehicle trips, which has been accounted for in operational emissions Tables 3.3-4 and 3.3-5.

The addition of residences under the Specific Plan Update's development scenarios 1 and 2 would substantially increase consumer product ROG emissions. Additional building square footage increases the use of architectural coatings used (e.g., painting) that also would increase ROG emissions. As a result, ROG emissions from the Specific Plan Update under both scenarios would exceed BAAQMD thresholds. The implementation of Mitigation Measure AIR-1.1, presented above in the discussion of construction emissions, would reduce ROG emissions from architectural coatings at the initial application of coatings.

While it is feasible and enforceable for the City to require super compliant VOC coatings be applied during construction, the City cannot ensure that future occupants or tenants will use compliant VOC coatings during reapplication over the lifespan of new buildings and impacts are expected to be significant and unavoidable.

Furthermore, future projects may include installation of permanent emergency diesel generators, which primarily contribute to NO_x emissions. The following measure shall be implemented to ensure NO_x emissions from diesel generators do not exceed project-level thresholds.

Proposed Specific Plan Update Policy:

- **Policy LU-4.9:** All diesel stand by emergency generators shall meet U.S. EPA Tier 4 engine standards. Permanent stationary emergency generators installed on-site shall have engines that meet or exceed U.S. EPA Tier 4 standards for particulate matter emissions, and shall obtain appropriate permits to operate from BAAQMD, as applicable.

During project-level review of future development projects, each project would be evaluated for consistency with Specific Plan Update TDM standards and TMA requirements and Specific Plan Update Policy LU-4.9 and all feasible and applicable measures to reduce operational criteria air pollutant emissions would be required as part of the project or as conditions of approval. The Specific Plan Update could substantially reduce emissions of regional air pollutants over the long-term through implementation of the above policy and TDM standards/TMA requirements, however, the policies and standards would not be capable of reducing the impact to a less than significant level given the magnitude of the impact. Therefore, it is concluded that the buildout of the Specific Plan Update, under either scenario, including the multi-use path with or without the loop road, would result significant and unavoidable operational criteria pollutant emissions.

(Significant and Unavoidable Impact)

Health Effects Associated with Significant Operational ROG, NO_x, and PM₁₀ Emissions

Buildout of the Specific Plan Update would have significant emissions of ozone precursor pollutants ROG and PM₁₀ during operation, as the emissions for these criteria pollutants and ozone precursors would be above BAAQMD thresholds (with the implementation of mitigation measures and Specific Plan Update policies).

Emissions of ROG (as well as NO_x) from individual sources (such as future projects under the Specific Plan) throughout the Bay Area contribute to high O₃ levels in the region and as stated in Section 3.3.1.3 Existing Conditions, the project region is in non-attainment for O₃. O₃ is an oxidant that is harmful to public health at high concentrations. O₃, at high levels, can damage the tissues of the lungs and respiratory tract. High concentrations of O₃ irritate the nose, throat, and respiratory system and constrict the airways. O₃ can also aggravate other respiratory conditions such as asthma, bronchitis, and emphysema, causing increased hospital admissions. Repeated exposure to high O₃ levels can make people more susceptible to respiratory infection and lung inflammation and permanently damage lung tissue. O₃ can also have negative cardiovascular impacts, including chronic hardening of the arteries and trigger heart attacks. Children are most at risk, as they tend to be active and outdoors in the summer, when O₃ levels are highest. Seniors and people with respiratory illnesses are also especially sensitive to O₃'s effects. Healthy adults working or exercising outdoors during high O₃ levels can also be affected.

Airborne PM in the San Francisco Bay Area is a mixture of many chemical species. It is a complex mixture of solids and aerosols composed of small droplets of liquid, dry solid fragments, and solid cores with liquid coatings. PM with a diameter of 10 microns or less (PM₁₀) are inhalable into the lungs and can induce adverse health effects like coughing, wheezing, asthma attacks, heart attack, and more. These impacts are mostly likely to affect the elderly and children. Emissions of particulate matter in the Bay Area contribute to these effects both in the Bay Area and for miles downwind. While emissions of particulate matter have been reduced in the Bay Area in recent decades, further reduction is necessary to continue the improvements seen in the public health benefits in the Bay Area.

No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative adverse air quality impacts and, while its emissions may be individually limited, it could be cumulatively considerable when taken in combination with past, present, and future development projects.¹⁸ The thresholds for criteria air pollutants are based on levels at which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, if a project leads to a significant impact individually, the project would also be considered to contribute significantly to the cumulative impact.

¹⁸ Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2017. http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

To evaluate the Specific Plan’s effects on O₃ levels in the region, the operational ROG, NO_x, and PM₁₀ emissions at buildout were compared to regional emissions that lead to elevated concentrations of O₃ (refer to Table 3.3-6).

Table 3.3-6: Comparison of Project Emissions to Air Basin ROG, NO_x, and PM₁₀ Emissions (tons/day)			
Scenario	ROG	NO_x	PM₁₀
Bay Area Air Basin in 2020	238 tons/day	172 tons/day	90 tons/day
Bay Area Air Basin in 2035	238 tons/day	140 tons/day	98 tons/day
Unmitigated Maximum Specific Plan Update Operational Scenarios (Increase over existing)	0.11 tons/day (39 tons/year)	0.04 tons/day (14tons/year)	0.06 tons/day (21 tons/year)
Percent of Basin in 2035 – 2040	0.04 percent	0.03 percent	0.06 percent
¹ CARB emissions inventories are only reported out to year 2035, which is the closest year of analysis to proposed Specific Plan Update buildout year. Source: Illingworth & Rodkin, Inc. Ravenswood/4 Corners TOD Specific Plan Update Air Quality & Greenhouse Gas Assessment, East Palo Alto, California. May 21, 2024			

As shown in Table 3.3-6, in terms of ROG, Specific Plan buildout emissions are a small portion of the region’s total emissions, representing 0.04 percent (for development scenario 2, with and without the loop road). For NO_x (under development scenario 2, with and without the loop road) the Specific Plan Update buildout’s emissions represent 0.03 percent of the region’s total emissions. For PM₁₀, Specific Plan Update buildout emissions (for development scenario 2, with and without the loop road), represents 0.06 percent of the region’s total emissions. Therefore, the effect of the Specific Plan Update would not cause regional ROG, NO_x, or PM₁₀ levels to measurably change. As a result, the project would not measurably increase ozone levels. Therefore, the ROG, NO_x, and PM₁₀ health effects associated with Specific Plan Update would not be measurable.

Further, given available modeling tools, it is not possible to accurately delineate a direct link between the project’s O₃ precursor emissions and health effects predicted for the region by BAAQMD resulting from elevated O₃ levels caused by the project.

Based on the discussion above, the project (under both scenarios, with or without the loop road) would not cause measurable increases to regional (ozone) air pollutant levels or health effects associated with the project’s ROG NO_x, and PM₁₀ emissions to materially change. The Specific Plan Update operational emissions of ROG, NO_x, and PM₁₀, however, would be significant and unavoidable.

(Significant and Unavoidable Impact)

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

The 2013 Specific Plan EIR did not include an analysis of construction or operational criteria pollutant emissions. A quantitative analysis of construction emissions could not be completed now as part of the Specific Plan Update since future project construction details are not available at this time. For future projects under the Specific Plan update under both scenarios, a project-level construction criteria pollutant emissions analysis would be completed per MM AIR-1.1 above. Since the amount of development that would ultimately be implemented under the Specific Plan update is known, a quantitative analysis of future operational criteria pollutants was completed for the Specific Plan update buildout under both scenarios, as presented above under Impact AIR-1.

As discussed in Section 3.3.1.2, the Bay Area is considered a non-attainment area for ground-level O₃, PM_{2.5}, and PM₁₀ under the state and/or federal standards. High O₃ levels are caused by cumulative emissions of ROG and NO_x. Controlling the emissions of these precursor pollutants would reduce O₃ levels.

Construction Period Emissions

As discussed under Impact AIR-1, in the absence of specific project construction information, it is expected that buildout of the Specific Plan would result in less than significant construction period air pollutant emissions with the implementation of feasible controls on construction activity that are regularly utilized to reduce construction emissions. Future projects would implement Mitigation Measure MM AIR-1.1 to reduce construction criteria pollutant emissions from use of construction equipment and, in most cases, the emissions are expected to remain below applicable BAAQMD thresholds presented in Impact AIR-1, and therefore less than significant. In the event that a specific project's construction emissions were modeled and found to remain significant even after implementation of MM AIR-1.1, supplemental environmental review would be needed, as appropriate, to either identify, through a mitigated negative declaration the additional mitigation proposed to reduce the emissions below applicable thresholds or disclose the new significant impact in an EIR and consider alternatives to the approach of construction, e.g. project design, schedule, equipment, etc.

(Less than Significant Impact with Mitigation Incorporated)

Operational Period Emissions

As discussed in detail under Impact AIR-1, buildout of the Specific Plan would result in significant operational period criteria air pollutant emissions. Future projects would implement mitigation measure MM AIR-1.1 requiring use of low VOC architectural coatings on future buildings. However, even with the implementation of this measure, Specific Plan Update buildout would result in

operational ROG, NO_x, and PM₁₀ emissions above BAAQMD thresholds, resulting in a cumulatively considerable net increase of criteria pollutants in the region (i.e., Bay Area).

(Significant and Unavoidable Impact)

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

Fugitive Dust Emissions

The BAAQMD CEQA Air Quality Guidelines do not identify plan-level thresholds that apply to construction. Although construction activities at individual project sites are expected to occur during a time period of a couple of years at each site, buildout of the Plan is expected to take 15-20 years as multiple projects are constructed, and the combination of temporary dust from activities and diesel exhaust from construction equipment poses both a health and nuisance impact to nearby receptors. Without application of appropriate control measures to reduce construction dust and exhaust, construction period impacts would be considered a significant impact.

Impact AIR-3: Fugitive dust emissions from future projects' construction diesel exhaust and equipment could result in significant health risk impacts to nearby sensitive receptors.

Mitigation Measure: Future projects under the Specific Plan Update (under all development scenarios) shall implement the following mitigation measures to reduce the impacts of fugitive dust emissions on sensitive receptors to a less than significant level.

MM AIR-3.1: The applicant shall require all construction contractors to implement the best construction measures recommended by BAQMD to reduce fugitive dust emissions. Emission reduction measures will include, at a minimum, the following measures:

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

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.

MM AIR-3.2:

Future projects shall implement the following Enhanced Construction Best Management Practices, which include but would not be limited to the measures below. Future project applicants shall submit these measures to the City for approval.

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- 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.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer’s specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District’s phone number shall also be visible to ensure compliance with applicable regulations.
- All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries.

- Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.
- Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
- The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
- Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a 6 to 12-inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.
- Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.

Consistent with City standard practice and the BAAQMD CEQA Air Quality Guidelines, implementation of the above basic and enhanced best management practices would reduce potential construction dust and exhaust associated with future development allowed under the proposed Specific Plan update, under both scenarios, to a less than significant level.

(Less than Significant Impact with Mitigation Incorporated)

Community Health Risk Impacts

The 2013 Specific Plan EIR concluded that implementation of the Specific Plan would locate sensitive receptors within 60 feet of University Avenue, which may expose sensitive receptors to unhealthy levels of TACs and PM_{2.5} emitted by traffic. In addition, future development could generate new sources of TACs in the Specific Plan area near existing or new sensitive receptors. However, this impact would be reduced to a less than significant level with implementation of Mitigation Measure AQ-2 (see below).

2013 Specific Plan EIR Mitigation Measure AIR-2: The following measures shall be utilized in site planning and building designs to reduce TAC and PM_{2.5} exposure where new receptors are located within 60 feet of University Avenue:

- Future development under the Plan that includes sensitive receptors (such as residences, schools, hospitals, daycare centers, or retirement homes) located within 60 feet of University Avenue shall require site-specific analysis to determine the level of TAC and PM_{2.5} exposure. This analysis shall be conducted following procedures outlined by BAAQMD. If the

site-specific analysis reveals significant exposures, such as cancer risk greater than 10 in one million, additional measures shall be employed to reduce the risk to below the threshold. If this is not possible, the sensitive receptors shall be relocated.

- For significant cancer risk exposure, as defined by BAAQMD, indoor air filtration systems shall be installed to effectively reduce particulate levels to a less-than-significant level. Project sponsors shall submit performance specifications and design details to demonstrate that lifetime residential exposures would result in less-than-significant cancer risks (less than 10 in one million chances).
- Tiered plantings of trees or shrubs along project boundaries closest to University Avenue shall be provided. Tiered plantings may include layering of trees or shrubs between the roadway and buildings within medians, setbacks, or within open spaces associated with buildings.

Future development allowed under the proposed Specific Plan Update would introduce new sources of TACs with the potential to adversely affect existing sensitive receptors in the Specific Plan area or by exacerbating existing cumulative TAC impacts. Construction activities associated with development allowed under the proposed Specific Plan Update would generate TAC emissions in the area. In addition, the new buildings may include the installation of diesel powered emergency generators and cooling towers that would also have TACs and air pollutant emissions.

Construction Community Health Risks

Construction activities associated with future development allowed under the proposed Specific Plan update would be a source of TAC emissions. Existing sensitive receptors are located west and south of the Specific Plan area. Health risks to nearby off-site and future on-site sensitive receptors associated with construction of future projects within the Specific Plan area are considered potentially significant. Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. The construction exhaust emissions may pose community risks for sensitive receptors such as nearby residents. The primary health risks associated with construction emissions are cancer, exposure to PM_{2.5}, and non-cancer health hazards. Diesel exhaust (i.e., DPM) poses both a potential health risk and nuisance impact to nearby receptors. Since specific construction plans and schedules for each project in the Specific Plan area are not known, it is not possible to quantify the impacts and determine their significance. Given the potential for future construction projects to cause substantial health risks, each project would be required to implement the following mitigation measure.

Impact AIR-4: The construction exhaust emissions from future projects could exceed BAAQMD thresholds and may result in community health risks for sensitive receptors such as nearby residents.

Mitigation Measure: Future project applicants under the Specific Plan Update shall implement the following measures to reduce the impacts from construction emissions on sensitive receptors:

MM AIR-4.1: Applicants proposing development of projects within 1,000 feet of existing sensitive receptors as defined by the BAAQMD (e.g., residential uses, schools) shall prepare a site-specific construction health risk assessment (HRA). If the HRA demonstrates, to the satisfaction of the City, that the health risk exposures for adjacent receptors will be less than BAAQMD project-level thresholds, then additional mitigation would not be required. However, if the HRA demonstrates that health risks would exceed BAAQMD project-level thresholds, additional feasible on- and off-site mitigation shall be identified to further reduce risks to the greatest extent practicable.

Measures to avoid significant construction health risks impacts that could be included in projects, depending on the results of the project-specific HRAs could include:

- Use Tier 4 engines for all off-road equipment greater than 50 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities.
- Use diesel trucks with 2010 or later compliant model year engines during construction.
- Use renewable diesel during construction.
- Use low-VOC coatings during construction.
- Implement fugitive dust best management practices and if necessary, enhanced measures recommended by BAAQMD.
- Use portable electrical equipment where commercially available and practicable to complete construction. Construction contractors shall utilize electrical grid power instead of diesel generators when (1) grid power is available at the construction site; (2) when construction of temporary power lines are not necessary in order to provide power to portions of the site distant from existing utility lines; (3) when use of portable extension lines is practicable given construction safety and operational limitations; and (4) when use of electrical grid power does not compromise construction schedules.
- Phase construction appropriate to lower the intensity of emissions at any one location with sensitive receptors.

- Provide enhanced air filtration for sensitive receptors adversely affected by project emissions.

Implementation of Mitigation Measure MM AIR-3.3 represents the best available methods to minimize emissions of air pollutants and TACs from implementation of the Specific Plan Update. These measures would reduce emissions of TACs and PM_{2.5} from construction by at least 85 percent below those generated by uncontrolled projects.

(Less than Significant Impact with Mitigation Incorporated)

Operational Health Risk Impacts

Operation of development projects allowed under the proposed Specific Plan Update (under both development scenarios) would generate emissions from mobile sources (e.g., traffic) and stationary sources (e.g., generators) resulting in potential health risks. The health risk to off-site receptors within 1,000 feet of the Specific Plan area, identified in Figure 3.3-1, from mobile emissions generated by increased traffic associated with development allowed under the Specific Plan Update are shown in Table. The highest average daily trips (ADT) from the Traffic Analysis (Appendix F) was selected for each roadway to provide a conservative estimate of emissions.

Table 3.3-7: Impacts from Traffic Sources to Off-Site Receptors			
Source	Cancer Risk (per million)	Annual PM_{2.5} (µg/m³)	Hazard Index
University Avenue (Proposed Specific Plan = 2,720 ADT) Scenario 2, with the loop road	0.08	0.01	<0.01
Bay Road (Proposed Specific Plan = 7,755 ADT) Scenario 2 with no loop road	1.34	0.14	<0.01
Clarke Avenue (Proposed Specific Plan = 2,509 ADT) Scenario 2, with no loop road	<0.01	<0.01	<0.01
<i>Combined Sources</i>	<1.42	<0.16	<0.03
BAAQMD Single Source Threshold	10.0	0.3	1.0
<i>Exceed Single Source Threshold?</i>	<i>No</i>	<i>No</i>	<i>No</i>
<i>Illingworth & Rodkin, Inc. Ravenswood/4 Corners TOD Specific Plan Update Air Quality & Greenhouse Gas Assessment, East Palo Alto, California. May 21, 2024.</i>			

As shown in Table, the unmitigated cancer risk, annual PM_{2.5} concentrations, and non-cancer hazard index (HI) from the Specific Plan Update traffic increases would not exceed the BAAQMD single- or cumulative source thresholds at existing sensitive receptor locations.

Stationary source emissions associated with development allowed under the proposed Specific Plan Update (under both development scenarios) could include diesel backup generators. These diesel engines would be subject to CARB’s Stationary Diesel Airborne Toxics Control Measures and require permits from the BAAQMD. As part of the BAAQMD permit requirements, the engine emissions would be required to meet Best Available Control Technology for Toxics and pass the health risk

screening level of less than 10 in a million. The risk assessment would be prepared by BAAQMD and depending on the results, BAAQMD may set limits for DPM emissions (e.g., more restricted engine operation periods). Therefore, future development under the Specific Plan Update would not result in a significant impact to sensitive receptors from operational traffic emissions or TAC sources (e.g., diesel generators).

The implementation of Mitigation Measure AIR-3.3 would reduce construction TAC and PM_{2.5} emissions to below BAAQMD thresholds, and health risk impacts associated with the proposed Specific Plan Update (under both development scenarios) to a less than significant level.

(Less than Significant Impact with Mitigation Incorporated)

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

The 2013 Specific Plan EIR concluded that new restaurants in mixed-use projects allowed under the Specific Plan could be a source of odors that result in complaints from new and existing residences. However, this impact would be reduced to a less than significant level with implementation of Mitigation Measure AQ-3 (see below).

2013 Specific Plan EIR Mitigation Measure AQ-3: New restaurants located in mixed-use developments, or adjacent to residential developments, shall install kitchen exhaust vents with filtration systems, re-route vents away from residential development, or use other accepted methods of odor control, in accordance with local building and fire codes.

The proposed Specific Plan Update (under both development scenarios with and without the loop road) would increase the total amount of development allowed within the Specific Plan area compared to existing conditions and the growth assumptions of the 2013 Specific Plan EIR. The Specific Plan Update would include similar residential, office/R&D, industrial, and civic uses as the 2013 Specific Plan. The 2022 BAAQMD CEQA Air Quality Guidelines considers facilities such as wastewater treatment plants, landfills, composting facilities, chemical manufacturing facilities, food processing facilities, and green waste and recycling facilities to be odor sources. Future development under Specific Plan Update Scenarios 1 and 2 do not include facilities that generate substantial odor. The emissions from vehicles using the loop road would be localized and would not generate substantial odor. Future projects that include restaurants within the Specific Plan area would implement the above 2013 Specific Plan Mitigation Measure AQ-3. Therefore, with the implementation of the above Mitigation Measure AQ-3, future development under the Specific Plan Update would result in less than significant odor impacts.

(Less than Significant Impact with Mitigation Incorporated)

3.3.2.2 *Cumulative Impacts*

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

The 2013 Specific Plan concluded cumulative traffic conditions would not cause or contribute to a violation of an ambient air quality standard, with the exception of University Avenue where cumulative increases in traffic could result in significant exposures within 60 feet of the roadway. The 2013 Specific Plan EIR states that the 2013 Specific Plan would conflict with the CAP Projections and Control Measures. It was concluded that the 2013 Specific Plan would contribute to a regional impact by increasing the rate of vehicle use at a greater rate than population growth. Therefore, the cumulative air quality impact was determined to be significant and unavoidable.

The geographic area for cumulative impacts from criteria air pollutants is the San Francisco Bay Air Basin. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to result in the region being in non-attainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts.

Consistency with the Clean Air Plan

Plan-Level Consistency

As discussed under Impact AIR-1, implementation of the Specific Plan Update would, under both scenarios, result in a VMT growth rate higher than the service population growth rate. For this reason, the Specific Plan Update would result in a significant cumulative conflict with the 2017 CAP.

(Significant and Unavoidable Cumulative Impact)

Project-Level Consistency

Future development would result in operational criterial air pollutant emissions exceeding BAAQMD's project-level thresholds of significance for ROG, NO_x, and PM₁₀ (see discussion under Impact AIR-1). Therefore, future development under the Specific Plan Update would result in a significant cumulative conflict with the 2017 CAP.

(Significant and Unavoidable Cumulative Impact)

Cumulative Impacts to Sensitive Receptors

The geographic area for cumulative impacts of air pollutant emissions on sensitive receptors is within 1,000 feet of the Specific Plan area. This distance is recommended by BAAQMD because adverse effects are the greatest within this distance. Community risk impacts from cumulative sources were modeled and are summarized in Table 3.3-7. Refer to Appendix B for details about the modeling, data inputs, and assumptions. In this case, the only substantial sources of emissions are from traffic. While there are stationary sources in the Specific Plan area, their influence at the receptor most affected by build out of the Specific Plan Update would be negligible. In addition, traffic generated by future development allowed under the proposed Specific Plan Update were combined with cumulative traffic volumes to determine whether combined project and cumulative traffic would result in significant health risks to nearby sensitive receptors (refer to Table 3.3-7).

Table 3.3-8: Impacts from Plan and Cumulative Traffic Sources to Off-Site Receptors			
Source	Cancer Risk (per million)	Annual PM_{2.5} (µg/m³)	Hazard Index
University Avenue (Proposed Specific Plan Update = 2,720 ADT) Scenario 2, with the loop road	0.08	0.01	<0.01
Bay Road (Proposed Specific Plan Update = 7,755 ADT) Scenario 2, without the loop road	1.34	0.14	<0.01
Clarke Avenue (Proposed Specific Plan Update = 2,509) Scenario 2, without the loop road	<0.01	<0.01	<0.01
<i>BAAQMD Single Source Threshold</i>	<i>10</i>	<i>0.3</i>	<i>1.0</i>
Exceed Single Source Threshold?	No	No	No
University Avenue (Cumulative + Proposed Specific Plan Update = 29,024 ADT)	0.85	0.11	<0.01
Bay Road (Cumulative + Proposed Specific Plan Update = 26,413 ADT)	4.56	0.48	0.01
Clarke Avenue (Cumulative + {Proposed Specific Plan Update = 13,767)	0.03	0.03	<0.01
Combined Sources	5.44	0.61	0.03
<i>BAAQMD Cumulative Source Threshold</i>	<i>100</i>	<i>0.8</i>	<i>10.0</i>
Exceed Cumulative Threshold?	No	No	No
<i>Illingworth & Rodkin, Inc. Ravenswood/4 Corners TOD Specific Plan Update Air Quality & Greenhouse Gas Assessment, East Palo Alto, California. May 21, 2024.</i>			

As shown in Table 3.3-8, the unmitigated maximum cancer risks, annual PM_{2.5} concentrations and non-cancer hazard index from the proposed Specific Plan Update traffic and cumulative sources would not exceed the BAAQMD cumulative-source significance threshold at existing sensitive receptor locations. Therefore, cumulative traffic conditions with the proposed Specific Plan Update would not cause or contribute to a violation of ambient air quality standards. This is a less than significant impact.

(Less than Significant Cumulative Impact)

Odors

The geographic area for cumulative odor impacts to sensitive receptors is within 1,000 feet of a project site or plan area. Future restaurant uses within the Specific Plan area have the potential to contribute to a cumulative odor impact to sensitive receptors, however, those projects would comply with Mitigation Measure AQ-3 to reduce odors. No known odor sources occur or are

currently proposed within 1,000 feet of the Specific Plan area. If future projects within 1,000 feet of the Plan area would result substantial odor, they would be subject to BAAQMD's requirements for odor sources. Therefore, operations of the cumulative projects would not result in significant cumulative odor impacts to sensitive receptors. **(Less than Significant Cumulative Impact)**

(Significant and Unavoidable Cumulative Impact)

3.3.3 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 to provide information to the public regarding existing air quality conditions that would affect sensitive receptors in the Specific Plan area.

A screening risk assessment was completed to analyze the impacts of existing TAC sources on new sensitive receptors allowed under the proposed Specific Plan Update (under both development scenarios). Details of the modeling and health risk calculations are included in Appendix B.

The proposed Specific Plan Update would allow for future development of residential land uses and other uses that may contain sensitive receptors in proximity to arterial and collector roadways, highways and stationary sources of TACs. A 1,000-foot buffer was drawn around the Specific Plan area to identify which TAC sources would affect sensitive receptors. Screening levels indicate that Specific Plan sensitive receptors near high-volume roadways (roadways with 10,000 average daily trips or more) and stationary sources could be exposed to levels of TACs and or PM_{2.5} that could cause an unacceptable health risk. Figure 3.3-1 shows the Specific Plan area and all TAC sources identified within the 1,000-foot buffer.

Within the Specific Plan area, roadways that have 10,000 average daily trips or more that would generate substantial TAC emissions include University Avenue, Bay Road, and Clarke Avenue. Dispersion modeling was used to determine buffer distances outside of which sensitive receptors would not be exposed to TAC emissions exceeding BAAQMD thresholds. These buffer distances are shown in Table 3.3-8.

3.4 Biological Resources

The following discussion is based, in part, on a Biological Resources Report prepared for the project by H.T. Harvey and Associates on March 12, 2024. The Biological Resources Report is included as Appendix C of this Draft SEIR.

3.4.1 Environmental Setting

3.4.1.1 *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

McAteer-Petris Act

The McAteer-Petris Act was enacted on September 17, 1965 and serves as a legal provision under California state law to preserve San Francisco Bay from indiscriminate filling. The act initially established the San Francisco Bay Conservation and Development Commission (BCDC) as a temporary state agency charged with preparing a plan for the long-term use of the San Francisco Bay. In August 1969, the McAteer-Petris Act was amended to make BCDC a permanent regulatory agency to incorporate the policies of the Bay Plan. BCDC jurisdiction includes a 100-foot wide band along the shoreline of the San Francisco Bay. The shoreline is defined as all areas that are subject to tidal action from the south end of the San Francisco Bay to the Golden Gate (Point Bonita–Point Lobos), and to the Sacramento River line (a line between Stake Point and Simmons Point, extended northeasterly to the mouth of Marshall Cut). Work within BCDC’s Bay jurisdiction or the 100-foot shoreline band would require a permit from the BCDC.

Baylands Ecosystem Habitat Goals Project

In 1999, the San Francisco Bay Area Wetlands Ecosystem Goals Project, the United States Environmental Protection Agency (EPA) and the San Francisco RWQCB prepared the Baylands Ecosystem Habitat Goals: A Report of Habitat Recommendations. The purpose of the report was to provide goals and recommendations for the conservation and restoration of tidal wetlands and associated habitats. Goals relevant to the Specific Plan area include:

- Assign high priority (or equal to that of intertidal marsh) to ecological restoration of upper marsh transition zones based on natural models and reference sites.
- Provide sufficient topographic relief adjacent to protected intertidal marsh areas to afford refuge during normal tidal and high flood water depths. This is particularly important in areas where rare and endangered salt marsh vertebrate species are known or likely inhabitants.
- Provide additional upland buffers for the marshes in the Palo Alto area, citing Cooley Landing as the northern limit.
- Increase alien predator management and better marsh corridors or connections between present marshes.

The buffer distance recommendation is specified in the general goals as “at least 300 feet wide between the upper edge of the marsh/upland transition and neighboring areas of developed use” and “where existing land uses or other factors such as steep terrain preclude this, wetland buffers should be no narrower than 100 feet.”

Local

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating impacts to biological resources resulting from planned development within the City, including the following:

Policy	Description
<i>Parks, Open Space, and Conservation</i>	
4.2	Human activities. Protect wildlife from adverse impacts caused by human activities.
4.7	Native species. Encourage or require the use of native and/or non-invasive plants in privately built landscaping or new open spaces near natural open space areas, in order to provide foraging, nesting, breeding, and migratory habitat for wildlife. Discourage use of herbicides and fertilizers.
4.8	Interagency coordination. Coordinate with other public agencies such as the San Francisquito Creek Joint Powers Authority, Army Corps of Engineers, National Fish and Wildlife Service, and other similar entities on construction or development activities occurring within or adjacent to the City.
4.9	Riparian and Flood Buffer. Do not allow new development within a 100-foot buffer zone from the top of the San Francisquito creek bank.
6.2	New tree planting. Prioritize the planting of new trees on sites designated as sensitive receptors (e.g. schools, health centers) or that are in close proximity to sources of air pollution such as freeways and heavily trafficked road corridors.

City of East Palo Alto Tree Protection Policies

The City of East Palo Alto maintains that the preservation of native and ornamental trees is necessary for the health, safety and welfare of its residents, and that trees preserve scenic beauty, prevent erosion of topsoil, protect against flood hazards, counteract pollutants in the air and maintain the climatic balance and decrease wind velocities. According to the City of East Palo Alto Tree Regulations (Municipal Code Chapter 18, Section 18.28.040), it is unlawful to destroy or remove or cause to be destroyed or removed, a protected tree upon any private or public property without a tree removal permit.¹⁹ A protected tree is defined as any of the following:

¹⁹ Where removal of tree has been authorized as part of any development approval granted by the City, no permit shall be required for removal of such tree (City of East Palo Alto Zoning Ordinance, Chapter 18, Article 3)

- Any tree having a main stem or trunk which measures –twenty-four inches or greater in circumference at a height of forty inches above grade;
- Any tree within a public street or public right-of-way, regardless of size;
- Any tree that was required to be preserved as a condition of development approval granted by the City;
- Any tree required to be planted as a condition of any development approval granted by the city; and
- Any tree required to be planted as a replacement for any unlawfully removed tree

3.4.1.2 *Existing Conditions*

The Specific Plan area is comprised of mostly developed property. A small portion of the Plan’s eastern area is within the 100-foot BCDC jurisdiction. The unnamed tidal slough north of Bay Road and all tidal salt marsh along the eastern edge of the Specific Plan area fall within BCDC’s Bay jurisdiction due to their connectivity to San Francisco Bay. BCDC’s shoreline jurisdiction extends 100 feet inland from those areas of Bay jurisdiction.

A search of the California Natural Diversity Database (CNDDDB) and California Native Plant Society (CNPS) special-status species records, and a site reconnaissance was completed for the Specific Plan area in 2009, as a part of the 2013 Specific Plan EIR. In July 2022, updated database searches and a field visit were completed to identify the existing habitat and species in the Specific Plan area and the vicinity. The existing habitats and species are discussed below.

Habitats

The existing habitats in the Specific Plan area are described below and shown on Figure 3.4-1. The Specific Plan area supports four general habitat/land use types including the northern coastal salt marsh and open water/tidal slough (which together total 22.1 acres), non-native grassland/ruderal (46.0 acres), and urban landscape (138.9 acres). These habitats were also identified in the 2013 Specific Plan EIR.

Northern Coastal Salt Marsh

Salt marshes are transitional areas between land and water, and northern coastal salt marsh occurs along the north and east margin of the Specific Plan area, adjacent to the Bay. This habitat is typically dominated by hydrophytic and herbaceous plant species that form a dense cover. The northeast part of the Specific Plan area supports primarily northern coastal salt marsh habitat, the northwest corner of the Specific Plan area supports an area of salt marsh habitat, and the northern boundary supports vegetation that contain salt marsh vegetation.

Vegetation within the salt marsh is segregated into zones influenced by the amount of tidal inundation. The lower zone (to mean high tide) is characterized by cordgrass, the middle zone (from mean high to higher tide) is characterized by pickleweed, and the upper zone is typified by saltgrass.

Other species found within the Specific Plan area in the middle and upper salt marsh zones include marsh gum-plant, alkali heath, dodder, salt marsh fleabane, cattail, fat hen, and alkali weed.

Northern coastal salt marsh habitat supports a variety of bird species, both resident and migratory. Species occurring within this habitat in the Specific Plan area include a variety of shorebirds such as American avocet, willet, black-necked stilt, long-billed curlew, short-billed dowitcher, and sandpipers.

Open Water/Tidal Slough

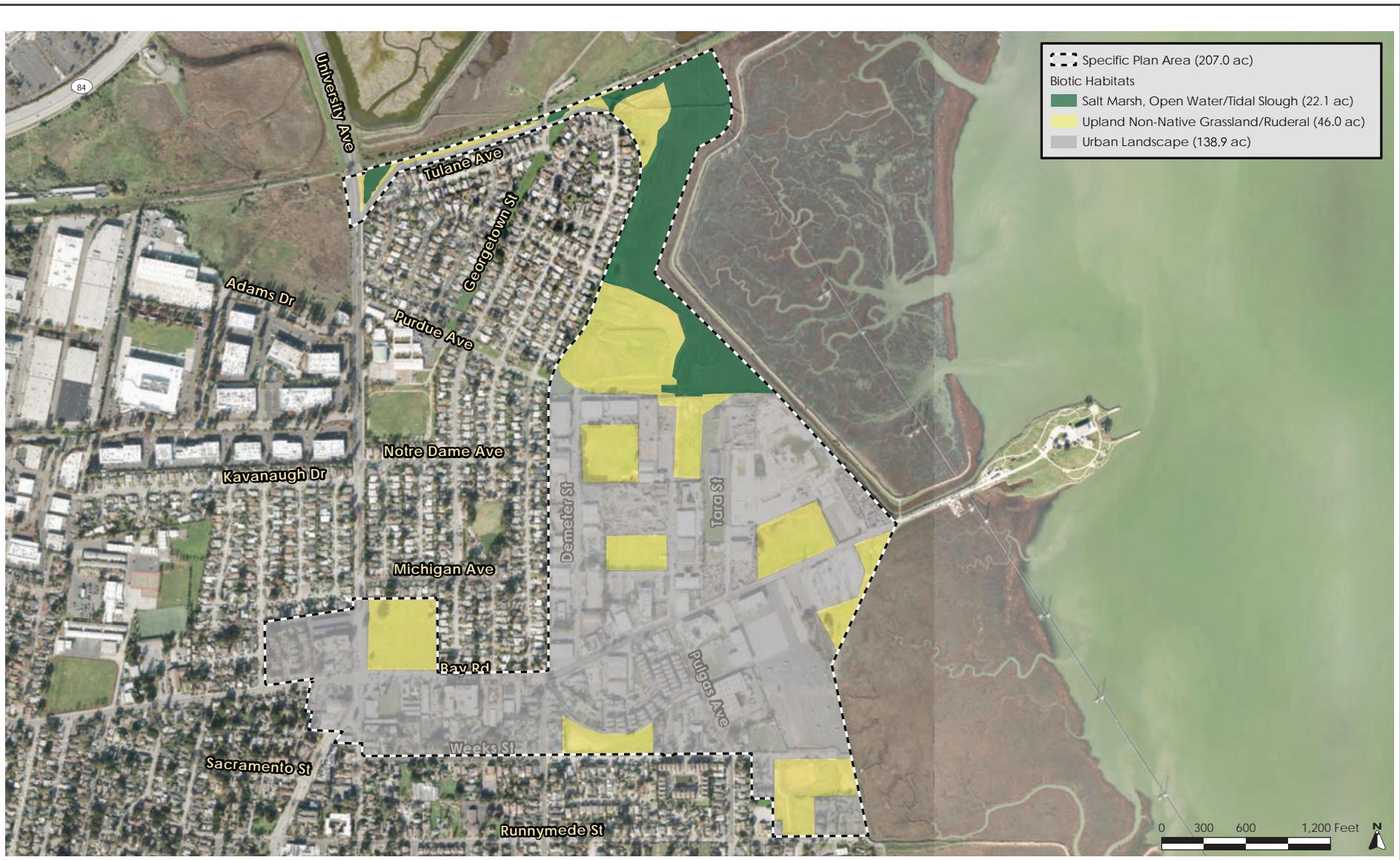
Within the salt marsh habitat is a network of channels and sloughs supporting open water. The open water/tidal sloughs are tidally influenced, with water levels changing with the tide, and does not support vegetation. Two areas of ponded water associated with this habitat type are found east of the Stevens Avenue terminus, and southeast of the University Village neighborhood (refer to Figure 3.4-1).

Open water/tidal sloughs within the Specific Plan area support many of the same species found within the salt marsh habitat, listed above. Shorebirds may forage in the sloughs during low tide, and other types of birds, such as ducks and egrets, use the open water habitats during both low and high tide. Aquatic species such as invertebrates and fish occur in the open water habitats within the Specific Plan area.

Nonnative Grassland/Ruderal

Portions of the upland habitat within the Specific Plan area are composed of nonnative annual grassland/ruderal habitat. Ruderal vegetation and nonnative annual grassland are mixed plant communities in which the native vegetation has been modified by grading, cultivation, grazing, or other surface disturbances. Such areas, if left undeveloped, may be colonized by invasive species. The native vegetation may ultimately become at least partially restored if the soils are left intact and there is no continued disturbance. This community is found on the Stanford Fill as well as upland areas that occur between salt water marsh and the University Village and industrial neighborhoods, and other undeveloped infill parcels. Some woody vegetation occurs in this area such as coyote brush and coast live oak. Non-native annual grassland/ruderal habitat is found north of University Village and on Cooley Landing.

Vegetation species found within nonnative annual grassland habitat include curly dock, peppergrass, ice plant, fennel, bristly ox-tongue, wild radish, Italian ryegrass, wild oat, and yellow star thistle. Occasional woody species including coast live oak, coyote bush, and olive also occur.



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

EXISTING HABITATS IN THE SPECIFIC PLAN AREA

FIGURE 3.4-1

Wildlife use of nonnative annual grassland/ruderal habitats within the Specific Plan area is limited by human disturbance, the small extent of the grassland area, and the isolation of these habitat remnants from more extensive grasslands. Many of the bird species that occur in the small grassland areas in the Specific Plan area occur primarily in adjacent ornamental woodland areas and use these grasslands for foraging. Such species include the house finch, bushtit, and lesser goldfinch which forage on seeds in grassland areas, and the black phoebe, and cliff swallow. In addition, the Mexican free-tailed bat forages over grassland habitats for insects.

Rodent species that could potentially occur in this habitat include the California vole, Botta's pocket gopher, California ground squirrel, and deer mouse. Raptors such as red-tailed hawks and barn owls forage for these small mammals. Mammals such as the native striped skunk and raccoon and nonnative Virginia opossum also use grassland habitats in the Specific Plan area for foraging. Reptiles such as western fence lizards and western terrestrial garter snakes frequent grassland habitats and may occur in the Specific Plan area.

Urban Landscape

The majority of the Specific Plan area is composed of developed urban landscape with little to no native vegetation communities. The urban area is a mix of residences, small businesses, and industrial development. Various ornamental plant species, such as blue gum eucalyptus trees and sweet gum, are found within landscaped features and street strips.

A variety of urban-adapted bird species are associated with nonnative, ornamental trees, which are used for nesting, roosting, and foraging. Those species include the Anna's hummingbird, mourning dove, northern mockingbird, bushtit, and Bewick's wren. Other common wildlife species that may occur are similar to those described under the nonnative grassland/ruderal habitat.

Special Status Plants and Animals

Several species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered rare and are vulnerable to extirpation as the state's human population grows and habitats are converted. In July 2022, a search for special status plant and animal species in the California Natural Diversity Database (CNDDDB) within a five-mile radius identified four special status plant species and 10 special status animal species with the potential to occur in the Ravenswood Specific Plan area. For special-status plant species, CNPS records were reviewed. In addition, a field visit was completed in July 2022 to identify plants and animals within the Specific Plan area. The results of the CNDDDB search and field visit are discussed below.

Special status plants that have the potential to occur in the Specific Plan area include the alkali milk vetch, California seablite, Congdon's tarplant, and Point Reyes bird's peak. As described in the 2013 Specific Plan EIR, only the Congdon's tarplant has a high potential for occurrence in the Specific Plan area.

Special status animals that have the potential to occur in the Specific Plan area include the Alameda song sparrow, burrowing owl, California black rail, California Ridgway's rail, California least tern, pallid bat, San Francisco common yellowthroat, salt marsh harvest mouse, salt marsh wandering shrew, and western snowy plover that were evaluated in the 2013 Specific Plan EIR. There is a low probability that the Crotch's bumble bee, a candidate for state listing, breeds in the Specific Plan area. If the bumble bee does breed in the Specific Plan area, it would breed only in very low numbers. More likely, the bumble bee species occurs only as a forager if it is present at all. Table 3.4-1 includes a current list of special-status species with their associated habitat and potential to occur in the Specific Plan area.

Table 3.4-1: Special Status Animal Species that Occur or Potentially Occur in Specific Plan Area

Species (Status)	Habitat	Occurrence in Ravenswood/4 Corners
Alameda song sparrow (California Species of Special Concern)	Nests in salt marsh, primarily in marsh gumplant and cordgrass along channels.	High potential for occurrence; present as breeder. Suitable salt marsh nesting habitat is present in the northern portion of the Specific Plan area and in areas adjacent to Bay Road, leading towards Cooley Landing. The subspecies is known to breed in the Ravenswood Open Space Preserve (OSP), immediately east of the Specific Plan area, and suitable nesting habitat is present along the tidal slough east of the Specific Plan area.

Table 3.4-1: Special Status Animal Species that Occur or Potentially Occur in Specific Plan Area

Species (Status)	Habitat	Occurrence in Ravenswood/4 Corners
American peregrine falcon (State Fully Protected)	Forages in many habitats; nests on cliffs and tall bridges and buildings.	High potential for occurrence; potential presence as breeder. The 2012 EIR did not address the American peregrine falcon. Peregrine falcons are known to nest on structures around the edges of the South Bay and have nested in recent years on an electrical tower at Ravenswood ponds R1 and R2, approximately one mile north of the Specific Plan area. Individuals may nest on tall structures within or immediately adjacent to the Specific Plan area, and may forage in the Specific Plan area year-round.

Table 3.4-1: Special Status Animal Species that Occur or Potentially Occur in Specific Plan Area

Species (Status)	Habitat	Occurrence in Ravenswood/4 Corners
<p>Burrowing owl (California Species of Special Concern)</p>	<p>Nests and roosts in open grasslands and ruderal habitats with suitable burrows, usually those made by California ground squirrels.</p>	<p>Low potential for occurrence; absent as breeder. There are no records of breeding owls within or surrounding the Specific Plan area. While ostensibly suitable burrowing owl roosting or nesting habitat is present, the species is not expected to nest in the Specific Plan area due to lack of breeding records. Although occasional migrant owls could forage and/or overwinter within the Specific Plan area, they are expected to do so infrequently and in small numbers.</p>
<p>Bryant’s savannah sparrow (California Species of Special Concern)</p>	<p>Nests in pickleweed dominant salt marsh and adjacent ruderal habitat.</p>	<p>High potential for occurrence; potential presence as breeder. The 2012 EIR did not address the Bryant’s savannah sparrow. Suitable nesting habitat occurs in the tidal marshes and immediately adjacent grasslands in the northern portion of the Specific Plan area and in areas adjacent to Bay Road in the Ravenswood OSP.</p>

Table 3.4-1: Special Status Animal Species that Occur or Potentially Occur in Specific Plan Area

Species (Status)	Habitat	Occurrence in Ravenswood/4 Corners
California black rail (State Threatened, State Protected)	Breeds in fresh, brackish, and tidal salt marsh.	Moderate potential for occurrence; potential presence as breeder. The 2012 EIR determined that California black rail has a high potential to occur in the Specific Plan area. Few black rails have been observed in the marshes on the east side of the San Francisco Peninsula, and most recent records are from the nonbreeding season. Nevertheless, suitable foraging and breeding habitat occurs within tidal marshes in the Specific Plan area, and this species may breed in small numbers.
Central California Coast steelhead (Federally Threatened)	Cool streams with suitable spawning habitat and conditions allowing migration between spawning and marine habitats.	Moderate potential for occurrence; absent as breeder. Central California Coast steelhead occur in the San Francisco Bay. And designated critical habitat includes San Francisco Bay up to the perimeter of the Bay water or the elevation of extreme high water, whichever is higher. Individuals may be present as occasional foragers within the Specific Plan area in the open waters of the Bay east of Cooley Landing, and in the tidal slough north of Bay Road in Ravenswood OSP during high tides. Critical habitat is present within the Specific Plan area in the open water east of Cooley Landing, in the tidal slough north of Bay Road, and adjacent to the Specific Plan area where this tidal slough parallels the east boundary.
California least tern (Federally Endangered, State Endangered, State Protected)	Nests along the coast on bare or sparsely vegetated, flat substrates. In the South Bay, nests in salt panners and on an old airport runway. Forages for fish in open waters.	Low potential for occurrence; absent as breeder. Least terns were known to nest at salt evaporation ponds approximately 1.5 miles west of the Specific Plan area from 1975 through 1976 and at Outer Bair Island approximately five miles northwest in 1969 through 1982, but they are no longer known to nest at these locations. The species is not known or expected to occur within the Specific Plan area, though they may occasionally forage over the open water habitat within the Specific Plan area east of Cooley Landing.

Table 3.4-1: Special Status Animal Species that Occur or Potentially Occur in Specific Plan Area

Species (Status)	Habitat	Occurrence in Ravenswood/4 Corners
California Ridgway's rail (Federally Endangered, State Endangered, State Protected)	Salt marsh habitat dominated by pickleweed.	High potential for occurrence; potential presence as breeder. The 2013 EIR determined that the California Ridgway's rail has a high potential to occur in the Specific Plan area. Breeding season records of California Ridgway's rail are present throughout the tidal marshes within and adjacent to the Specific Plan area, and suitable breeding and foraging habitat is present in the tidal marshes in the northeast portion of the Specific Plan area and adjacent to Bay Road in the Ravenswood OSP. This species was observed foraging in tidal channels in the northeast portion of the Specific Plan area in 2020.
Crotch's bumble bee (State Candidate)	Open grassland and shrub habitats with abundant flowers providing nectar and pollen and with subterranean nest sites (such as animal burrows).	Low (Likely Absent as Breeder). This species has been recently recorded at the Palo Alto Baylands, 1.7 miles to the southeast of the Specific Plan area. However, habitat quality in the Specific Plan area is low due to the absence of extensive, high-quality floral resources and the developed or wetland nature of most of the area, thus reducing the potential for nesting. There is a low probability this species breeds in the Specific Plan area. If it does breed in the Specific Plan area, it would breed in low numbers. More likely, the species occurs only as a forager if it is present at all.
Green sturgeon (Federally Threatened, California Species of Special Concern)	Spawns in large river systems such as the Sacramento River; forages in nearshore oceanic waters, bays, and estuaries.	Not present in or immediately adjacent to the Specific Plan area. However, the species may occasionally forage within the Specific Plan area in the open waters of the Bay immediately east of Cooley Landing. Designated critical habitat is present within the Specific Plan area in the tidal slough north of Bay Road and adjacent to the Specific Plan area where this tidal slough parallels the east boundary.
Loggerhead shrike (California Species of Special Concern)	Nests in tall shrubs and dense trees; forages in grasslands, marshes, and ruderal habitats.	High potential for occurrence; potential presence as breeder. The 2013 EIR did not address the Loggerhead shrike. Loggerhead shrikes occur occasionally in the Specific Plan area during winter months, but due to declines in Bay Area breeding populations, they are not expected to nest there. The species may forage in grasslands and marshes in the Specific Plan area during winter and migration.
Longfin smelt (Federally Threatened, State Threatened)	Spawns in fresh water in the upper end of the Bay; occurs year-round in the South Bay.	Moderate potential for occurrence; absent as breeder. Longfin smelt occur in San Francisco Bay. Adults and juveniles may be present as occasional foragers in the Specific Plan area in the open waters of the Bay immediately east of Cooley Landing.

Table 3.4-1: Special Status Animal Species that Occur or Potentially Occur in Specific Plan Area

Species (Status)	Habitat	Occurrence in Ravenswood/4 Corners
		However, open waters do not provide suitable spawning habitat, and it is likely that longfin smelt only occur in small numbers. This species may occasionally forage within the tidal slough north of Bay Road at high tide, infrequently and in low numbers given the shallow and narrow nature of aquatic habitat.
Monarch butterfly (Federal Candidate)	Requires milkweed for egg-laying and larval development, but adults obtain nectar from a wide variety of flowering plants in many habitats. Individuals congregate in winter roosts, primarily in Mexico and in widely scattered locations on the central and southern California coast.	Moderate potential for occurrence; potential presence as scarce breeder. The 2013 EIR did not address the Monarch butterfly because it had no listing or legal designation as a special-status species at the time. On December 15, 2020, the US Fish and Wildlife Service (USFWS) announced that listing the monarch butterfly as endangered or threatened under the Federal Endangered Species Act (FESA) was warranted but precluded by higher priority listing actions. Thus, the monarch butterfly is now a candidate species under FESA, and the USFWS will review its status annually until a listing decision is made. The monarch butterfly occurs within the Specific Plan area vicinity primarily as a migrant, through small numbers breed in some parts of the South Bay. No current or historical overwintering concentrations are known in San Mateo County, and no larval host plants were observed in the Specific Plan area during the July 2022 reconnaissance surveys. Small numbers of adults may nectar within the Specific Plan area, especially during spring and fall migration, and a very small number of individuals may breed in the Specific Plan area if milkweed is present.
Northern harrier (California Species of Special Concern)	Nests in marshes and moist fields with tall vegetation and sufficient moisture to inhibit accessibility of nest sites to predators. Forages over open areas.	High potential for occurrence; potential presence as a breeder. The 2013 EIR did not address the Northern harrier. The species occurs year-round in the marshes within and adjacent to the Specific Plan area. Suitable nesting habitat is present in the marshes in and adjacent to the eastern portion of the Specific Plan area.
Pallid bat (California Species of Special Concern)	Forages over many habitats; roosts in caves, rock outcrops, buildings, and hollow trees.	Low potential for occurrence; absent as breeder. Pallid bats were historically present in a number of locations throughout the Specific Plan region, but their populations have declined in recent decades. The species has been extirpated as a breeder from urban areas close to the Bay. Individual from more remote colonies would potentially forage in the Specific Plan area in open habitats on rare occasions, but the species is not expected to roost in the area.

Table 3.4-1: Special Status Animal Species that Occur or Potentially Occur in Specific Plan Area

Species (Status)	Habitat	Occurrence in Ravenswood/4 Corners
San Francisco Common yellowthroat (California Species of Special Concern)	Nests in herbaceous vegetation, usually in wetlands or moist floodplains.	High potential for occurrence; present as breeder. Common yellowthroats occur year-round in the marshes within and surrounding the Specific Plan area. Suitable nesting and foraging habitat is present along the tidal slough north of Bay Road in Ravenswood OSP, and along the tidal slough just outside the eastern boundary of the Specific Plan area. This species may nest within the Specific Plan area or close enough to be affected by the proposed project.
Salt marsh harvest mouse (Federally Endangered, State Endangered, State Protected)	Salt marsh habitat dominated by common pickleweed or alkali bulrush; recent studies have indicated that the species also utilizes marshes, non-tidal managed wetlands, and some adjacent upland habitats.	High potential for occurrence. The salt marsh harvest mouse is known to occur in tidal marshes in and adjacent to the Specific Plan area. Suitable salt marsh habitat occurs in the northeastern portion of the Specific Plan area, adjacent to Bay Road in the Ravenswood OSP. Suitable habitat is also present along the tidal slough east of the Specific Plan area. Salt marsh harvest mice may also forage in upland grasslands area immediately adjacent to marsh habitats and may take refuge in these habitats during high tides.
Salt marsh wandering shrew (California Species of Special Concern)	Medium to high marsh six to eight feet above sea level with abundant driftwood and common pickleweed.	Moderate potential for occurrence. The salt marsh wandering shrew is known to occur in the vicinity from a record at Ravenswood Point, approximately one mile north of the Specific Plan area. Suitable pickleweed-dominated salt marsh habitat occurs in the northeastern portion of the Specific Plan area and adjacent to Bay Road in the Ravenswood OSP leading towards Cooley Landing.
Southwestern pond turtle (California Species of Special Concern)	Permanent or nearly permanent water in a variety of habitats.	Absent. There are a number of CNDBB records of the Southwestern pond turtle from San Mateo County, all from the western part of the County, with the closest record of the species from San Francisquito Creek near Stanford University, approximately four miles southwest of the Specific Plan area. Major roads, highways, and developed areas create impassable barriers to dispersal of this species from known locations found west of the Specific Plan area. Aquatic habitats that are found within and adjacent to the Specific Plan area are too brackish for the species to persist in the Specific Plan area vicinity. The species has been determined to be absent from the Specific Plan area.

Table 3.4-1: Special Status Animal Species that Occur or Potentially Occur in Specific Plan Area

Species (Status)	Habitat	Occurrence in Ravenswood/4 Corners
Townsend’s big-eared bat (California Species of Special Concern)	Roosts in caves and mine tunnels, and occasionally in deep crevices in trees such as redwoods or in abandoned buildings, in a variety of habitats. Forages in edge habitats along streams and adjacent to and in a variety of woodland habitats.	Low potential for occurrence; absent as breeder. The 2013 EIR did not address the Townsend’s big-eared bat. No known extant populations of the species occur in the vicinity of the Specific Plan area and there is a low probability that the species occurs in the Specific Plan vicinity at all due to urbanization. Individuals from more remote colonies could potentially forage in the study area over open habitats on rare occasions, but the species is not expected to roost in the Specific Plan area.
Tricolored blackbird (State Threatened)	Nests near fresh water in dense emergent vegetation.	Low potential for occurrence; absent as breeder. Tricolored blackbirds typically nest in extensive stands of all emergent herbaceous vegetation in nontidal freshwater marshes and ponds, which are not present on or immediately adjacent to the Specific Plan area. This species is not known to nest in tidal habitats in Santa Clara and San Mateo County, and has not been recorded nesting on or near the Specific Plan area. However, small numbers of tricolored blackbirds may forage in the Specific Plan area (e.g., in grasslands and marsh habitats) during the nonbreeding season.
Western red bat (California Species of Special Concern)	Roosts in foliage or woodlands, especially in or near riparian habitat.	Low potential for occurrence; absent as breeder. The 2013 EIR did not address the Western red bat. Individual western red bats occur in the project vicinity in low numbers as migrants and winter residents, but this species does not breed in the project vicinity. They may roost in the foliage of trees virtually anywhere in the vicinity, but are expected to roost primarily in riparian habitats, which are absent from the Specific Plan area. Occasional individuals may forage over the Specific Plan area year-round.
Western snowy plover (Federally Threatened, California Species of Special Concern)	Sandy beaches on marine and estuarine shores and salt pannes in Bay saline managed ponds.	Absent; present in adjacent areas. The 2013 EIR determined this species had a moderate potential to occur in the Specific Plan area due to known occurrences at San Franciscquito Creek. However, no suitable habitat for this species is present in the Specific Plan area itself. Rather, the species could potentially occur in Pond SF 2 at the Ravenswood Complex at the Don Edwards National Wildlife Refuge, in salt pannes immediately north of the Specific Plan area. Thus, the species may nest close enough to the Specific Plan area to be affected by Specific Plan activities.

Table 3.4-1: Special Status Animal Species that Occur or Potentially Occur in Specific Plan Area		
Species (Status)	Habitat	Occurrence in Ravenswood/4 Corners
White-tailed kite (State Protected)	Nests in tall shrubs and trees; forages in grasslands, marshes, and ruderal habitats.	High potential for occurrence; potential presence as a breeder. The 2013 EIR did not address the white-tailed kite. This species is known to nest in eastern San Mateo and Santa Clara Counties throughout the open areas bordering the Bay. Large trees in and adjacent to the Specific Plan area provide suitable nesting habitat for white-tailed kites, and open areas along the Specific Plan area’s urban margin provide foraging habitat for the species.
Source: H.T. Harvey & Associates, Inc. <i>Ravenswood/4 Corners Specific Plan Update Biological Resources Report</i> . March 12, 2024.		

Wildlife Movement Corridors

Habitat corridors are essential to terrestrial animals as they provide connectivity between and amongst core habitat areas (i.e., larger, intact habitat areas where species make their living). Connections between two or more habitat areas help ensure that genetic diversity is maintained, thereby diminishing the probability of demographic or geographic extinction. Movement corridors in California are typically associated with valleys, rivers, and creeks supporting riparian vegetation and ridgelines. With increasing encroachment of humans on wildlife habitats, it has become important to establish and maintain movement corridors and linkages for animals to be able to access locations containing different biotic resources that are essential to maintaining their life cycles.

Due to the density of development and lack of continuous, well-vegetated pathways through urbanized East Palo Alto and its surroundings, there are currently no well-defined movement corridors for mammals, amphibians, or reptiles within or through most of the Specific Plan area. Urban-adapted wildlife species such as raccoons, striped skunks, and western fence lizards that reside in the urban landscape and nonnative grassland/ruderal habitats may move through the Specific Plan area using cover and refuge.

The wetlands along the edge of the Bay comprise one of the most important coastal wintering and migratory stopover foraging habitats for Pacific Flyway shorebirds and waterfowl, most of which do not breed in the Bay but use it during migration and in winter for feeding and resting. The tidal salt marshes in and adjacent to the Specific Plan area are valuable resources for these migratory birds, which are expected to be present in high abundance during winter and migration.

Migratory birds, including terrestrial species and waterbirds associated with the Bay, migrate along the edge of the Bay. For example, nocturnal migrant birds that find themselves over the Bay in the morning will seek roosting and foraging areas along the edge of the Bay. As a result, numbers of migrant birds moving through/past the Specific Plan area would be higher than expected based on the low quality of habitat currently present in most of urbanized areas.

Federal and State Protected Wetlands

No rivers, streams, or lakes regulated by the CDFW are present in the Specific Plan area. The tidal sloughs do not receive hydrology from freshwater streams or creeks and, therefore, would not fall under the jurisdiction of the CDFW as sensitive riparian habitat.

The salt marsh, open water, and tidal slough habitats found in the northeast, northwest, and southeast portions of the Specific Plan area, would be considered waters of the US and waters of the state under United States Army Corps Engineers (USACE) and RWQCB jurisdiction, respectively.

3.4.2 Impact Discussion

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

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

3.4.2.1 *Project Impacts*

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

Special-Status Plants

The 2013 Specific Plan EIR concluded that construction activities associated with future development allowed under the Specific Plan could result in impacts to special-status plant species such as Condon's tarplant, alkali milk vetch, Point Reyes' bird's beak, and California seablite. However, this impact would be reduced to a less than significant level with implementation of Mitigation Measure BIO-1 (see below).

2013 Specific Plan EIR Mitigation Measure BIO-1:

- If development is proposed on a site identified as "Natural Habitat" in Figure 4.4-1 of the Draft EIR, the site shall first be subjected to focused pre-construction surveys during the appropriate blooming seasons by a qualified biologist to assess for the presence of Condon's tarplant, alkali milk vetch, Point Reyes' bird's beak, and California seablite.

Survey methods shall comply with CNPS/CDFG rare plant survey protocols, and shall be performed by qualified field botanists. Any populations of special-status plant species that are detected shall be mapped.

- If special-status plant populations are detected, they shall be avoided to the greatest extent feasible; however, where construction would have unavoidable impacts, a compensatory mitigation plan shall be prepared and implemented in coordination with regulatory agencies. Such plans may include salvage, propagation, on-site reintroduction in restored habitats, and monitoring.

The proposed Specific Plan area is similar to the Plan area evaluated in the 2013 Specific Plan EIR, with the exception of the University Village neighborhood and Cooley Landing Park which are no longer considered a part of the Specific Plan area. The proposed Specific Plan area falls within the boundaries of the 2013 Plan area. Although University Village and the Cooley Landing Park were a part of the 2013 Plan area, future development was not proposed for these areas.

As discussed in Section 3.4.1.2 Existing Conditions, there is potential for the Congdon's tarplant, alkali milk vetch, and Point Reyes bird's beak to occur within the Specific Plan area. A Biological Resources Report was prepared for the project by H.T. Harvey and Associates in August 2022. The Biological Resources included focused surveys for Congdon's tarplant. No individuals of the species were identified in the location of the CNDBB occurrence. Nevertheless, suitable habitat is present in the transitional upland grassland or ruderal/barren habitats within the Specific Plan area. Though the alkali milk vetch and Point Reyes bird's beak are unlikely to be present, there is a low potential for occurrence in the tidal marsh habitats in the eastern portions of the Specific Plan area.

The 2013 Specific Plan EIR concluded there was a low potential for California seablite to occur within the Specific Plan area. Although the Specific Plan area met the habitat requirements of the seablite, occurrence of the species had not been recorded in the region for decades; the 2013 Specific Plan EIR determined this species may be extirpated from the San Francisco Bay Area. Since the 2013 Specific Plan EIR was prepared, due to the near-extirpation of this species from the region except for a few populations, as well as the absence of high-quality habitat from the Specific Plan area, the California seablite is considered absent from the Specific Plan area.

Disturbance or destruction of individual Congdon's tarplant, alkali milk vetch, and Point Reyes bird's beak could occur during construction activities associated with development projects allowed under the Specific Plan Update. Direct impacts could include grading or filling areas supporting these species, trampling or crushing of plants, and soil compaction. Indirect impacts could include mobilization of dust onto plants, which can affect their photosynthesis and respiration, or changes to hydrology supporting these plants due to grading or construction in nearby habitats. Although shading of special-status plants by new buildings constructed in adjacent areas could adversely affect the health of such plants, it is unlikely that special-status plants will be lost due to shading, unless the plants are surrounded on two or more sides by new shading. Impacts to a very small proportion of the population of these species (ten percent or less of the population present in the Specific Plan area) would not be considered a significant impact given natural fluctuations in these populations and their ability to colonize new, unimpacted habitat.

Impact BIO-1: Disturbance or destruction of individual special-status plant species such as the Congdon's tarplant, alkali milk vetch, and Point Reyes bird's beak could occur during construction activities associated with future development projects, resulting in a significant impact to these species.

Mitigation Measures: The following mitigation measures would be incorporated to ensure impacts to special-status plant species are reduced to less than significant levels. The following mitigation measures will replace the mitigation measure MM BIO-1.1 in the 2013 Specific Plan EIR to account for updated requirements for special-status plant surveys.

MM BIO-1.1: Pre-Activity Surveys for Special-Status Plants. Prior to initial ground disturbance for Specific Plan-related projects in salt marsh, tidal slough, and grassland/ruderal habitats as depicted on Figure 3.4-1, a qualified plant ecologist shall conduct an appropriately timed survey for Congdon's tarplant, Alkali milk vetch, and Point Reyes bird's beak within the project footprint, and a 50-foot buffer around the project footprint. This buffer may be increased by the qualified plant ecologist depending on site-specific conditions and activities planned in the areas but must be at least 50 feet wide. Situations for which a greater buffer may be required include proximity to proposed activities expected to generate large volumes of dust, such as grading; potential for project activities to alter hydrology supporting habitat for the species; or proximity to proposed structures that may shade areas farther than 50 feet away.

Surveys should be conducted in a year with near-average or above-average precipitation; surveys conducted in a year of below-average rainfall would be considered valid if examination of reference populations of the target species indicate that the species would be detectable if present. The purpose of the survey shall be to assess the presence or absence of special-status plants, including Congdon's tarplant, alkali milk vetch, and Point Reyes bird's beak.

If the target species are not found in the impact area or the identified buffer, then no further mitigation shall be warranted. If the target species, or any other special-status plants are found in the impact area or identified buffers, MM BIO-1.2 and MM BIO-1.3 would be implemented.

MM BIO-1.2: Special-Status Plant Avoidance Buffers. To the extent feasible, and in consultation with a qualified plant ecologist, the project proponent shall submit to the City a design for the proposed project, if feasible, to completely avoid impacts on all populations of special-status plants within the project footprints or within the identified buffers of the impact areas. Avoided special-status plant populations shall be protected by establishing and observing the identified buffer between plant populations and the

impact area. All such populations located in the impact area or the identified buffer, and their associated designated avoidance areas, shall be clearly depicted on any construction plans. In addition, prior to initial ground disturbance or vegetation removal, the limits of the identified buffer around special-status plants to be avoided shall be marked in the field (e.g., with flagging, fencing, paint, or other means appropriate for the site in question). This marking shall be maintained intact and in good condition throughout project-related construction activities.

If complete avoidance is not feasible and more than 10 percent of a population (by occupied area or individuals) would be impacted as determined by a qualified plant ecologist, MM BIO-1.3 shall be implemented.

MM BIO-1.3:

Preserve and Manage Mitigation Populations of Special-Status Plants. If avoidance of special-status plants is not feasible and more than 10 percent of the population would be impacted, compensatory mitigation shall be provided via the preservation, enhancement, and management of occupied habitat for the species, or the creation and management of a new population. To compensate for impacts on special-status plants, habitat occupied by the affected species shall be preserved and managed in perpetuity at a minimum 1:1 mitigation ratio (at least one plant preserved for each plant impacted, and at least one occupied acre preserved for each occupied acre affected), for any impact over the 10 percent significance threshold. Alternately, seed from the population to be impacted may be harvested and used either to expand an existing population (by a similar number/occupied area to compensate for impacts to special-status plants beyond the 10 percent significance threshold) or establish an entirely new population in suitable habitat.

Areas proposed to be preserved as compensatory mitigation for impacts to special-status plants must contain verified extant populations of the species, or in the event that enhancement of existing populations or establishment of a new population is selected, the area must contain suitable habitat for the species as identified by a qualified plant ecologist. Mitigation areas shall be managed in perpetuity to encourage persistence and even expansion of this species. Mitigation lands cannot be located on land that is currently held publicly for resource protection unless substantial enhancement of habitat quality will be achieved by the mitigation activities. The mitigation habitat shall be of equal or greater habitat quality compared to the impacted areas, as determined by a qualified plant ecologist, in terms of soil features, extent of disturbance, vegetation structure, and dominant species composition, and shall contain at least as many individuals of the species as are impacted by project activities. The permanent protection and management of mitigation

lands shall be ensured through an appropriate mechanism, such as a conservation easement or fee title purchase.

A habitat mitigation and monitoring plan (HMMP) shall be developed by a qualified biologist or restoration ecologist and implemented for the mitigation lands on a project-by-project basis. Approval of the HMMP by the City shall be required before project impacts occur to the species.

The HMMP shall include, at a minimum, the following information:

- A summary of habitat impacts and the proposed mitigation;
- A description of the location and boundaries of the mitigation site and description of existing site conditions;
- A description of measures to be undertaken to enhance (e.g., through focused management that may include removal of invasive species in adjacent suitable but currently unoccupied habitat) the mitigation site for the species;
- A description of measures to transplant individual plants or seeds from the impact area to the mitigation site, if appropriate (which will be determined by a qualified plant or restoration ecologist);
- Proposed management activities to maintain high-quality habitat conditions for the species;
- A description of habitat and species monitoring measures on the mitigation site, including specific, objective final and performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule, etc. At a minimum, performance criteria will include demonstration that any plant population fluctuations over the monitoring period of a minimum of 5 years for preserved populations and a minimum of 10 years for enhanced or established populations do not indicate a downward trajectory in terms of reduction in numbers and/or occupied area for the preserved mitigation population that can be attributed to management (i.e., that are not the result of local weather patterns, as determined by monitoring of a nearby reference population, or other factors unrelated to management); and
- Contingency measures for mitigation elements that do not meet performance criteria.

With the implementation of mitigation measures MM BIO-1.1 through MM BIO-1.3, buildout of the Specific Plan would result in a less than significant impact on special status alkali milk-vetch, Congdon's tarplant, and Point Reyes bird's beak by ensuring project design avoids these species'

habitats or implementing a habitat mitigation and monitoring plan. This is the same impact as previously identified in the 2013 Specific Plan EIR.

(Less than Significant Impact with Mitigation Incorporated)

Special-Status Animals

Monarch Butterfly and Crotch's Bumble Bee

The 2013 Specific Plan EIR did not address impacts to monarch butterfly as it was not considered a special-status species at the time. Since the adoption of the 2013 Specific Plan EIR, the species has become a federal candidate species. This species occurs in the project region primarily as a migrant. Because no overwintering sites are known in the Specific Plan area, no large nonbreeding aggregations of the monarch butterfly would occur within the area. Further, larval host plants were not observed within any of the undeveloped habitats of the Specific Plan area during the July 2022 reconnaissance surveys.

Until recently, monarch butterflies were not known to breed in the Bay Area during the winter months and would normally be expected to be present during winter only in coastal nonbreeding overwintering aggregations. In 2021, breeding was documented in several locations in the Specific Plan region (e.g., at the Rinconada Community Garden in Palo Alto) during the winter of 2020. This breeding was facilitated by the use of nonnative, tropical milkweeds in landscape vegetation. Due to irrigation, these milkweeds persist during the winter months when native milkweeds in more natural, non-irrigated settings die back and are unavailable for egg-laying. The implications of winter breeding by monarchs in the Specific Plan area are complex and not fully understood. Nevertheless, because landscape vegetation in the Specific Plan area may include nonnative, tropical milkweeds, isolated breeding could occur in the Specific Plan area at any time of year. However, any individuals that breed in irrigated landscapes are not expected to be impacted by independent projects, as these likely occur primarily in residential gardens or other small landscape installations.

Native milkweeds are scarce in the Specific Plan area; therefore, the loss of suitable habitat or larval hostplants would not result in a significant impact to the regional availability of such habitat, hostplants, or monarch butterfly populations. Similarly, if any host plants containing monarch butterfly eggs, larvae, or pupae were to be impacted, they would represent such a small proportion of the regional population of monarchs that impacts would not result in a significant reduction in regional populations of monarchs. For these reasons, buildout of the Specific Plan would have less than significant impacts on the monarch butterfly. **(Less than Significant Impact)**

Crotch's bumble bee is not known to occur in the Specific Plan area. In the unlikely event any individuals would be impacted by construction activities for future projects under the Specific Plan Update, they would represent such a small proportion of the regional population that such impacts would not result in a substantial reduction in regional populations of the species. For these reasons, impacts on the Crotch's bumble bee would be less than significant. **(Less than Significant Impact)**

Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew

The 2013 Specific Plan EIR concluded that construction activities associated with development allowed under the Specific Plan could result in impacts to salt marsh harvest mouse and salt marsh wandering shrew. However, these impacts would be reduced to a less than significant level with implementation of 2013 Specific Plan EIR Mitigation Measure BIO-2a and BIO-2b (see below).

2013 Specific Plan EIR Mitigation Measure BIO-2a:

- Any development project in an area identified as Salt Marsh on Figure 4.4-1 of the Draft EIR shall be subject to a wetland delineation and habitat assessment prepared by a qualified biologist. All jurisdictional wetlands and areas of dense pickleweed identified by the biologist as suitable habitat for the salt marsh harvest mouse shall be avoided for development and preserved in their existing state, unless Mitigation Measure BIO-2b is implemented. This would also avoid impacts to the salt marsh wandering shrew, whose habitat overlaps with wetlands and that of the salt marsh harvest mouse.

2013 Specific Plan EIR Mitigation Measure BIO-2b:

- Where avoidance of suitable habitat for salt marsh harvest mouse or salt marsh wandering shrew is not possible, the U.S. Fish and Wildlife Service shall be consulted.

Future development allowed under the Specific Plan Update (under both development scenarios) would occur within the same area as the 2013 Specific Plan EIR, with the exception of the University Village neighborhood and Cooley Landing Park which are no longer considered a part of the Specific Plan area. As discussed in Section 3.4.1.2 Existing Conditions, consistent with the 2013 Specific Plan EIR, the Specific Plan area contains suitable pickleweed habitat to support salt marsh harvest mouse and salt marsh wandering shrew populations. Consistent with the 2013 Specific Plan EIR, construction activities associated with implementation of the proposed Specific Plan Update could, therefore, result in significant impacts to salt marsh harvest mouse and salt marsh wandering shrew populations and habitats. The magnitude of the impact is due to the loss of habitat and not the amount of development that occurs on the parcels where habitat would be converted, and so therefore, there are not meaningful differences in the level of impact between the 2013 Specific Plan and the Specific Plan Update Scenarios 1 and 2 given they all involve development on the same areas of the Specific Plan, but at varying levels of intensity.

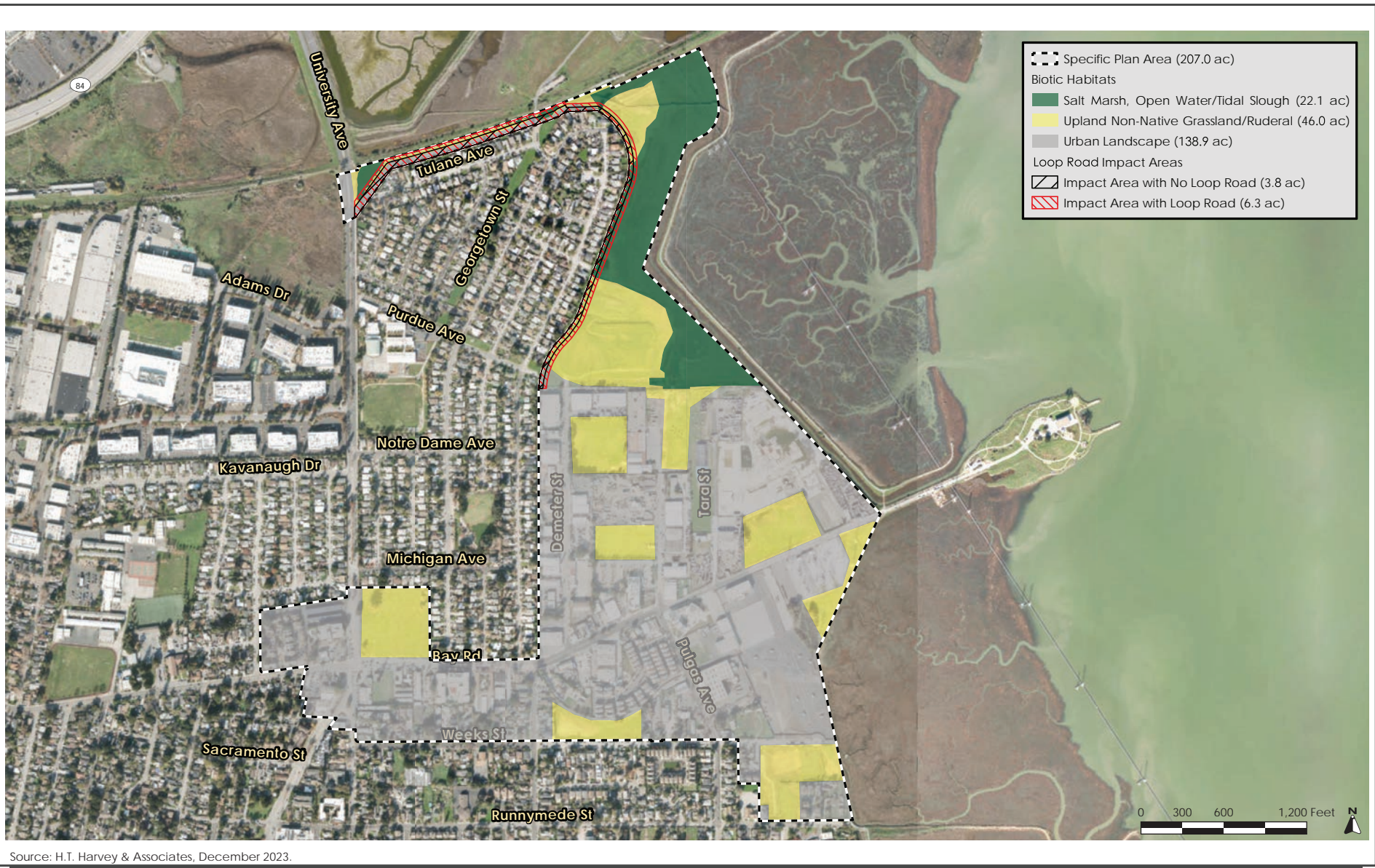
As described above in Section 2.3.4, the Specific Plan Update has an option to include a new loop road which would connect University Avenue to the terminus end of Demeter Street. The Loop Road would wrap around the northern and eastern perimeter of University Village.

The no loop road option would accommodate a shared multi-use path for bicycles/pedestrians (on top of the future SAFER Bay levee) and no travel lanes. In this configuration, construction would result in the direct loss of 1.2 acres of upland grassland and 0.7 acres of salt marsh habitats that may be used by both salt marsh harvest mice and salt marsh wandering shrews, as well as 1.90 acres of urban landscape that would not provide suitable habitat for these species. The loop road

option would result in the direct loss of 2.7 acres of upland grassland and 1.7 acres of salt marsh that provides potential habitat for salt marsh harvest mice and salt marsh wandering shrews, as well as 2.1 acres of urban landscape that would not provide suitable habitat for these species. The habitat acreage loss from both the no loop road (3.8 acres) and loop road (6.3 acres) options are shown on Figure 3.4-2. The difference in the acreage loss is due to the larger cross-section width of the loop road, which would be 56 feet wide on the eastern perimeter compared to 30 feet wide for the multi-use path without the loop road.

It is unknown at this time whether the loop road (or multi-use path) would be constructed prior to, after, or concurrently with the future SAFER Bay levee (discussed in Section 2.3-5). If the loop road (or multi-use path) is constructed after or concurrently with the construction of the levee, and located on the inward side of the levee, the loop road or multi-use path would not have any impacts on the habitat of the salt marsh harvest mouse and salt marsh wandering shrew. The SAFER Bay levee construction is a separate project from the Specific Plan and would require environmental review by the separate lead agency responsible for designing and carrying it out. If the levee is constructed prior to the loop road/multi-use path, the loop road/multi-use path would be constructed on the inward side of the levee; the levee would separate the road/path from salt marsh species and there would be no impact from the loop road/multi-use path.

As a conservative approach to analyzing the impacts of the loop road or multi-use path on the salt marsh harvest mouse and salt marsh wandering shrew habitat, this SEIR analysis assumes the loop road or multi-use path would be built prior to the construction of the future levee, i.e., the levee would not be present to serve as a buffer.



LOOP ROAD CONFIGURATION IMPACT AREAS

FIGURE 3.4-2

Future development within or adjacent to the salt marsh, open water, or tidal slough habitat could result in a significant impact to this habitat or the salt marsh harvest mouse and salt marsh wandering shrew from loss of their habitat or populations. Mitigation Measures MM BIO-2.1 through MM BIO-2.6 shall be implemented during the construction and design of future projects and MM BIO-2.7 -MM BIO-2.,8 which require restrictions on the location on feeding stations for domestic animals and food waste management, would be implemented during future projects' operations.

Impact BIO-2: Future projects' construction activities and operations could result in a significant impact to the salt marsh harvest mouse and salt marsh wandering shrew populations and their habitat.

Mitigation Measures: The following mitigation measures, which have been updated to be consistent with the current guidelines for salt marsh harvest mouse and salt marsh wandering shrew populations and habitats during construction. Future projects shall implement these measures to ensure impacts to salt marsh harvest mouse and salt marsh wandering shrew populations and habitats are reduced to less than significant levels.

MM BIO-2.1: **Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew Minimization Measure.** Any development projects, including the loop road or multi-use path, within 100 feet of an area identified as salt marsh, open water, or tidal slough shall be subject to a habitat assessment prepared by a qualified biologist. All habitats identified by the biologist as suitable habitat for the salt marsh harvest mouse or salt marsh wandering shrew shall be avoided for development and preserved in their existing state, to the extent feasible. If avoidance of salt marsh habitats is infeasible, the following measures shall be implemented:

- Before any construction activities begin, a qualified biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include descriptions of the salt marsh harvest mouse and salt marsh wandering shrew, their habitats, the laws protecting them, the general measures that are being implemented to conserve the species as they relate to the project, and the boundaries within which the project may be accomplished.
- To avoid the loss of individual harvest mice or shrews from any excavation, fill, or construction activities in suitable habitat, vegetation removal will be limited to the minimum amount necessary to permit the activity to occur. Wherever feasible, sufficient suitable habitat, as determined by a qualified biologist, will remain adjacent to the activity area to provide refugia for displaced individuals.

- Within areas where vegetation potentially supporting salt marsh harvest mice or salt marsh wandering shrews will be impacted, vegetation and debris that could provide cover for mice will be removed using only hand tools (which may include motorized equipment such as line trimmers if the vegetation removed is inspected by a qualified biologist and does not contain any salt marsh harvest mice or salt marsh wandering shrews) at least one week prior to the commencement of construction activities. Vegetation removal will occur under the supervision of a qualified biologist. This vegetation will be removed on a progressive basis, such that the advancing front of vegetation removal moves toward vegetation that would not be disturbed. If necessary, temporary shelter consisting of dead vegetation may be positioned to provide escape routes to suitable habitat. A qualified biologist will monitor the vegetation removal and make specific recommendations with respect to the rate of vegetation removal (to ensure that any harvest mice or shrews present are able to escape to cover that will not be impacted), and whether vegetation needs to remain in a certain area temporarily to facilitate dispersal of mice into habitat outside the impact area.
- All cut vegetation, except cut vegetation left in place as escape cover, will be removed daily from vegetation removal areas to prevent it from being used as refugia by salt marsh harvest mice.
- If a salt marsh harvest mouse or salt marsh wandering shrew, or an animal that may be a salt marsh harvest mouse or salt marsh wandering shrew, is detected during vegetation removal or other project activities, all work that could impact the individual will cease until the animal has moved out of the impact area on its own. A qualified biologist will monitor the animal to ensure that it disperses out of the impact area. If the animal will not move on its own, the biologist will confer with the US Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) to identify appropriate measures to avoid impacts to the animal. No salt marsh harvest mice or salt marsh wandering shrews will be handled (even for relocation) without prior approval from the USFWS and CDFW.
- Following the hand-removal of vegetation, exclusion fencing will be erected as needed between construction areas and harvest mouse/shrew habitat that is to remain unimpacted to define and isolate protected harvest mouse/shrew habitat. This fencing will consist of material that cannot be climbed by harvest mice, buried at least 4 inches below the ground's surface, and with at least 1 ft (but no more than 4 ft) above the ground. All supports for the fencing will be placed on the inside of the work area. A minimum 2-ft buffer will

be maintained free of vegetation around the outside of the exclusion fencing. The fencing will be inspected daily during construction, and any necessary repairs will be made within 24 hours of when they are found. If any breaks in the fencing are found, the qualified biologist will inspect the work area for salt marsh harvest mice and salt marsh wandering shrews.

- During construction, a qualified biologist will check underneath vehicles and equipment for salt marsh harvest mice and salt marsh wandering shrews before such equipment is moved, unless the equipment is surrounded by harvest mouse exclusion fencing.
- No animals (e.g., dogs or cats) will be brought to the project site by project personnel to avoid harassment, killing, or injuring of wildlife.
- The project site will be maintained trash-free, and food refuse will be contained in secure bins and removed daily during construction, to avoid attracting nuisance animals that may then prey on salt marsh harvest mice.
- Nighttime work will be avoided if feasible. If avoidance of night work is infeasible, all project lighting will be shielded and directed away from tidal marshes.
- Construction activities within 10 feet of the high tide line shall not occur within two hours before or after extreme high tides (6.5 feet or above, as measured at the Golden Gate Bridge and adjusted to the timing of local high tides), when the marsh plan is inundated, because protective cover for these species is limited and activities could prevent them from reaching available cover.
- In either configuration, with or without the loop road, salt marsh and upland grassland habitats, which may be used for foraging and high-tide refugia by both species, would be located immediately adjacent to the new road and pathways. Therefore, dense upland ecotone/transitional salt marsh vegetation shall be planted along the immediate edge of the shoulder of the loop road or multi-use path adjacent to salt marsh and upland grassland habitats to provide high-tide refugia for both species.
- In order to provide a barrier between transitional salt marsh and upland grassland habitats and the newly constructed loop road or multi-use path, and to discourage loop road/multi-use path users from entering potential habitats used by salt marsh harvest mice and salt marsh wandering shrews, a low (less than three feet tall) symbolic fence or wall with educational signs prohibiting entry shall be placed along the edge of the developed area, between the developed area and the upland ecotone to be added as described above.

MM BIO-2.2:**Salt Marsh Harvest Mouse and Salt Marsh Wandering Shrew**

Compensatory Mitigation. Compensatory mitigation for individual project impacts, including the loop road or multi-use path, on the salt marsh harvest mouse and salt marsh wandering shrew habitat will be provided via the purchase of credits from a conservation bank or mitigation bank that has restored suitable salt marsh habitat for these species; project-specific mitigation via the preservation and management of suitable habitat for this species; or some combination of the two approaches. If no USFWS/CDFW-approved conservation banks specifically for these mammals are available, credits in a tidal wetland mitigation bank that provides suitable habitat for, and is expected to be occupied by, these species would be adequate. Compensatory mitigation shall be provided at a minimum ratio of 2:1 (mitigation to impact) on an acreage basis if project-specific mitigation is performed or 1:1 if credits are purchased from a mitigation or conservation bank. Compensatory mitigation shall be provided for any potentially suitable habitat for these species that is permanently lost to development or that is present within 50 feet of any new or higher-intensity lighting installed by Specific Plan activities.

If project-specific mitigation is provided as compensatory mitigation, the applicant will engage a qualified plant or restoration ecologist to prepare an HMMP describing the measures that will be taken to create, restore, or enhance habitat for the salt marsh harvest mouse and salt marsh wandering shrew and monitor the effects of the mitigation on these species. The HMMP will include, at a minimum, the following:

- A summary of project impacts on the species and the proposed mitigation of these impacts;
- A description of the location and boundaries of the mitigation site and description of existing site conditions;
- A description of measures to be undertaken to enhance (e.g., through focused management) the mitigation site for the species;
- Proposed management activities (e.g., management of invasive plants) to maintain high-quality habitat conditions for the species;
- A description of community and species monitoring measures on the mitigation site, including specific, objective goals and objectives, performance indicators, success criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule. At a minimum, success criteria shall include demonstration that habitat conditions are suitable for occupancy by the salt marsh harvest mouse and salt marsh wandering shrew, and that either a) at least

one of these species is present, or b) the site is connected to pre-existing, suitable, and presumably occupied habitat so that colonization of the mitigation site is determined to be likely by a qualified biologist. Monitoring will occur until these criteria are achieved but for no less than five years

- A description of the HMMP's adaptive component, including potential contingency measures for mitigation elements that do not meet performance criteria; and
- A description of the funding mechanism to ensure the long-term maintenance and monitoring of the mitigation lands.

The HMMP shall be prepared by a qualified plant or restoration ecologist. Approval of the HMMP by the City shall be required before project impacts occur to the species.

MM BIO-2.3: Prohibit Rodenticides. The use of rodenticides shall not be allowed within 100 feet of any salt marsh habitat.

MM BIO-2.4: Restrict Pesticide Use in and near Salt Marsh Habitats. All pesticides used within 100 feet of salt marsh habitats must be utilized in accordance with the manufacturer's directions. No pesticides shall be applied within tidal marsh habitats as part of Specific Plan Update activities. Any pesticides used in areas where they could be washed, or could drift via wind, into tidal marsh habitat must be approved by the City of East Palo Alto for use in aquatic habitats.

MM BIO-2.5: Raptor Perch Deterrents. Within 300 feet of any salt marsh habitats within or adjacent to the Specific Plan area, raptor perch deterrents will be placed on any edges of building roofs, terraces, or other structures (e.g., light poles or electrical towers) that are high enough to overlook the marsh and that have an unobstructed view to the marsh. The specific type of perch deterrent(s) used shall be approved by a qualified biologist and the City.

MM BIO-2.6: Landscape Design. To avoid perches for avian predators and dense woody vegetation that could hide mammalian predators of salt marsh harvest mouse and salt marsh wandering shrew, new landscaping, as well as the size, location and species of any new or replacement public street trees, within 300 feet of salt marsh habitats shall be reviewed by a qualified biologist familiar with these species' ecology prior to City approval to ensure that no new landscaping poses a threat to these two mammals. Intervening structures, topography, and other features that may block the view of the

tidal marsh from avian predators using proposed trees shall be considered by the biologist.

MM BIO-2.7: Restrictions on Outdoor Cat Feeding Stations and Off-Leash Dogs. Future developments shall prohibit outdoor cat feeding stations within 300 feet of salt marsh habitats. Future developments shall also prohibit off-leash dogs within 100 feet of salt marsh habitats unless within fenced areas.

MM BIO-2.8: Food Waste Management. The following measures shall be implemented by future developments within 100 feet of salt marsh habitats to reduce impacts on salt marsh harvest mice and salt marsh wandering shrews due to the attraction of nuisance predators:

- Any bins used for food waste shall include lids that seal tightly to prevent access by animals and incorporate a mechanism to prevent them from being inadvertently left open when not in active use.
- Outdoor trash and recycling receptacles shall be emptied frequently enough that cans do not fill up and allow food waste to spill out.
- Litter on the site shall be picked up daily, and no food trash is left on-site overnight.
- Signs shall be placed on trash and recycling receptacles reminding users to close the lids so that they will not be inadvertently left open.
- Residents and visitors shall be prohibited from feeding feral or wild mammals.
- Educational signs shall be posted explaining the importance and sensitivity of nearby marsh habitats, prohibiting feeding wildlife and feral animals on the property, prohibiting off-leash dogs, and advising residents and visitors to dispose of food waste in outdoor areas appropriately to avoid attracting and subsidizing nuisance species.

With the implementation of mitigation measures MM BIO-2.1 through MM BIO-2.8 buildout of the Specific Plan, with the loop road or multi-use path, would result in a less than significant impact on the salt marsh harvest mouse and salt marsh wandering shrew by ensuring project design avoids these species habitats or implements a habitat mitigation and monitoring plan. This is the same impact as previously disclosed in the 2013 Specific Plan EIR. **(Same Impact as Approved Project, Less than Significant Impact with Mitigation Incorporated)**

California Black Rail and California Ridgway's Rail

The 2013 Specific Plan EIR concluded that construction activities associated with development allowed under the Specific Plan could result in impacts to nesting birds, including California black rail, California clapper rail (Ridgway's rail), and western burrowing owl (discussed separately below) as a result of disturbance of nests and breeding behavior. However, the 2013 Specific Plan EIR

found that this impact to California black rail and Ridgway's rail would be reduced to a less than significant level with implementation of Mitigation Measure MM BIO-3a (see below).

2013 Specific Plan EIR Mitigation Measure:

If construction activities are scheduled to occur during the breeding season (February 1 through August 31), a qualified wildlife biologist shall conduct pre-construction surveys of all potentially suitable nesting habitat within 0.25 miles of active construction areas, including trees, shrubs, grasslands and wetland vegetation. The qualified wildlife biologist shall determine the timing of pre-construction surveys based on the time of year and habitats that are present, and shall conduct the surveys no more than 15 days prior to construction.

- If active California clapper rail or California black rail nests are found, a 500-foot no-disturbance setback zone shall be flagged and maintained around active nests until it is determined that young have fledged. If active nests for other bird species are found, a 250-foot no disturbance setback zone shall be flagged and maintained around active nests until it is determined that young have fledged.
- If pre-construction surveys indicate that nests are inactive or potential habitat is unoccupied during the construction period, no further mitigation shall be required.
- If construction is scheduled to occur during the non-nesting season (September 1 – January 31), then no nesting bird surveys shall be required before the start of construction activity, except for provisions for surveys for wintering western burrowing owls, as specified in Mitigation Measure BIO-3b.
- A worker education program shall be provided to the construction crew. This program shall review sensitive species and habitats that might be present on the site. Workers shall be informed of mitigation and avoidance measures.

Future development allowed under the Specific Plan Update (under both development scenarios) would occur within the same area as the 2013 Specific Plan EIR, with the exception of the University Village neighborhood and Cooley Landing Park which are no longer considered a part of the Specific Plan area. As discussed in Section 3.4.1.2 Existing Conditions, the eastern portion of the Specific Plan area contains suitable nesting habitat for the California black rail and California Ridgway's rail. Construction activities associated with implementation of the proposed Specific Plan Update could, therefore, result in impacts to California black rail and/or California Ridgway's rail populations and habitats. The magnitude of the impact is due to the loss of habitat and not the amount of development that occurs on the parcels where habitat would be converted, and so therefore, there are not meaningful differences in the level of impact between the 2013 Specific Plan and the proposed Update Scenarios #1 and #2. Direct and indirect impacts to these species' habitats are similar to those described for the salt marsh harvest mouse and salt marsh wandering shrew above. For example, in the absence of protective measures, Specific Plan Update activities (including the construction of the loop road or multi-use path) could impact the California Ridgway's rail and California black rail by attracting predators due to increased human food availability, and by increasing the abundance and quality of hunting perches for avian predators such as common

ravens and red-tailed hawks, and increasing nighttime lighting of these species' habitat. The following mitigation measures, which have been updated to be consistent with current protocol-level survey requirements for the California black rail and/or California Ridgway's rail, would be implemented.

Impact BIO-3: Future project construction could result in the loss of California black rail and/or California Ridgway's rail populations and their habitats, which would constitute a significant impact.

Mitigation Measures: Future projects shall implement following mitigation measures to ensure impacts to California black rail and/or California Ridgway's rail populations and habitats are reduced to less than significant levels.

MM BIO-3.1: **Seasonal Avoidance or Protocol-level Surveys and Buffers around Calling Centers.** To avoid causing the abandonment of an active California Ridgway's rail or California black rail nest, independent project activities within 700 feet of salt marsh habitats within or adjacent to the Specific Plan area will be avoided during the rail breeding season (from February 1 through August 31) unless 1) a qualified biologist determines that a reduced buffer (but no less than 200 feet) is appropriate due to intervening development or obstructions, the level of disturbance by the activity (in terms of noise and equipment), or other factors that would reduce the potential for the activity to disturb nesting rails, or 2) protocol-level surveys are conducted by a qualified biologist to determine rail locations and territories during the year in which construction is initiated. Protocol-level surveys are typically initiated in late January, so proactive planning is necessary to ensure that such surveys are conducted according to the protocol during the year in which construction occurs.

If breeding rails are determined to be present, construction activities shall not occur within 700 feet of an identified California Ridgway's rail calling center or within 300 feet of a California black rail calling center during the breeding season.

With the implementation of mitigation measure MM BIO-3.1, buildout of the Specific Plan Update would result in a less than significant impact on the California black rail and California Ridgway's rail by ensuring adequate avoidance of nesting areas through the use of buffer zones during construction. This is the same impact as previously identified in the 2013 Specific Plan EIR.

(Less than Significant Impact with Mitigation Incorporated)

Special-Status Fish and Tidal Slough Habitat

The 2013 Specific Plan EIR assessed impacts to wetland habitats but did not explicitly evaluate impacts to fish. As discussed in Section 3.4.1.2 Existing Conditions, special-status fish such as the green sturgeon, Central California Coast steelhead, and longfin smelt may occur in a tidal slough adjacent to the eastern portion of the Specific Plan area.

If construction activities under the Specific Plan Update (including the construction of the multi-use path and loop road) were to occur in or near the tidal salt marsh, open water, or tidal slough habitats, those activities could potentially impact special-status fish. Construction may result in indirect adverse effects on fish and their habitats due to short-term increases in suspended sediment and turbidity near the project site as a result of run-off and potential leaking or spills of chemical contaminants or hazardous materials (gasoline, oil, grease, concrete) onto the ground from use of heavy equipment adjacent to aquatic habitats. In addition, the tidal slough provides essential fish habitat (EFH) for a variety of fish managed under the Magnuson-Stevens Fishery Conservation and Management Act.

Increased suspended sediment and turbidity may have direct effects on special-status fish and FMP-managed species by interfering with visual foraging, interfering with migratory behavior, and injuring gills. Indirect effects could include increasing susceptibility to predation and reducing availability of food. Leaking or spills of chemical contaminants or hazardous materials could be toxic to special-status fish, FMP-managed species, and their prey. Due to the regional rarity of special-status fish and the ecological importance of EFH and FMP-managed fish species, these impacts would be significant without the implementation of mitigation measures to avoid or reduce impacts.

The Specific Plan Update Scenarios 1 and 2 would have the same footprint for development, and therefore, would be no difference in impacts to special-status fish species and habitat. The loop road and multi-use path would be located in the vegetated tidal marsh area but would not result in additional impacts to the tidal slough.

Mitigation measures would be implemented during construction activities, as described below.

Impact BIO-4: Future projects' construction activities that occur in or near the tidal salt marsh, open water, or tidal slough habitats, could result in significant impacts to special-status species fish.

Mitigation Measures: Future projects shall implement the following mitigation measures to ensure impacts to special-status fish populations and habitats are reduced to less than significant levels.

MM BIO-4.1: **Worker Environmental Awareness Training.** Personnel working on projects within or adjacent to salt marsh, open water, or tidal slough habitats shall be trained by a qualified biologist in the importance of the marine environment to special-status fish and other aquatic animals and plants, and the environmental protection measures put in place to prevent impacts to these

species, their habitats, and essential fish habitat (EFH). The training session shall include the information described in MM BIO-1.4, as well as the following:

- A review of the special-status fish, other aquatic animals and plants, and sensitive habitats that could be found in or near the work areas;
- Measures to avoid and minimize adverse effects to special-status fish, other aquatic animals and plants, their habitats, and EFH; and
- A review of all conditions and requirements of environmental permits, reports, and plans (e.g., USACE permits).

MM BIO-4.2:

Water Quality Protection. During construction, the project applicant shall employ standard construction best management practices (BMPs) to protect water quality. These BMPs may include but are not limited to the following:

- Sediment mitigation measures shall be in place prior to the onset of project construction and shall be monitored and maintained until construction activities have been completed. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Stockpiles that are to remain on the site throughout the wet season shall be protected to prevent erosion.
- No litter, debris, or sediment shall be dumped into storm drains. Daily trash and debris removal shall occur at the site.
- All litter and construction debris shall be disposed of off-site in accordance with state and local regulations. All trash and debris within the work area shall be placed in containers with secure lids before the end of work each day in order to reduce the likelihood of predators being attracted to the site by discarded food wrappers and other rubbish that may be left on-site. If containers meeting these criteria are not available, all rubbish shall be removed from the project site at the end of each work day.
- Equipment staging and parking of vehicles shall occur on established access roads and flat surfaces.
- The integrity and effectiveness of construction fencing and erosion control measures shall be inspected on a daily basis. Corrective actions and repairs shall be carried out immediately for fence breaches and ineffective BMPs.
- Fueling, washing, and maintenance of vehicles shall occur in developed habitat, away from all tidal salt marsh, open water, and tidal slough habitats. Equipment shall be regularly maintained to avoid fuel leaks. Any leaks shall be captured in containers until equipment is moved to a repair location. Hazardous materials shall be stored only within the developed habitat. Containment and

cleanup plans shall be prepared and put in place for immediate cleanup of fluid or hazardous materials spills.

- Absorbent materials designated for spill containment and clean-up activities shall be available on project sites for use in an accidental spill.
- At no time shall sediment-laden water be allowed to enter the salt marsh, open water, or tidal slough habitats.

With the implementation of mitigation measure MM BIO-4.1 through MM BIO-4.2, buildout of the Specific Plan would result in a less than significant impact on special-status fish species and their habitats by ensuring species avoidance and implementing BMPs to reduce impacts to water quality during construction.

(Less than Significant Impact with Mitigation Incorporated)

Burrowing Owl

The 2013 Specific Plan EIR concluded that construction activities associated with development allowed under the 2013 Specific Plan could result in impacts to western burrowing owls as a result of disturbance of nests and breeding behavior. However, the 2013 Specific Plan EIR found that this impact to burrowing owl would be reduced to a less than significant level with implementation of 2013 Specific Plan EIR Mitigation Measure MM BIO-3b (see below).

2013 Specific Plan EIR Mitigation Measure BIO-3b: The following guidelines, adapted from the CDFG Staff Report on Burrowing Owl Mitigation (CDFG 1995), shall be implemented:

- Pre-construction western burrowing owl surveys shall be conducted in all areas that may provide suitable nesting habitat according to CDFG (1995) guidelines. These likely areas are shown as areas of upland habitat on Figure 4.4-1 of the Draft EIR.
 - No more than 30 days before construction, a habitat survey, including documentation of burrows and western burrowing owls, shall be conducted by a qualified wildlife biologist within 500 feet of the construction area in areas suitable for western burrowing owls. If no suitable habitat is found, no future mitigation is needed.
 - The survey shall conform to the protocol described by the California Burrowing Owl Consortium, including up to four surveys on different dates if there are suitable burrows present.
 - The survey shall identify as any impact any disturbance within 160 feet of occupied burrows during the non-breeding season of September 1 through January 31, or within approximately 250 feet during the breeding season of February 1 through August 31.

- If, as determined by a qualified biologist, construction activities will not adversely affect occupied burrows or disrupt breeding behavior, construction may proceed without any restriction or mitigation measures for western burrowing owls.
- If construction could adversely affect occupied burrows during the February 1 through August 31 breeding season, a 250-foot no disturbance buffer shall be maintained around the occupied burrow until a qualified biologist has determined that the chicks have fledged. If construction could adversely affect occupied burrows during the September 1 through January 31 non-breeding season, the subject owls may be passively relocated from the occupied burrow(s) using one-way doors, according to CDFG guidelines, using the following measures:
 - There shall be at least two unoccupied burrows suitable for western burrowing owl within 300 feet of the occupied burrow before one-way doors are installed in the occupied burrow.
 - The unoccupied burrows shall also be located at least 160 feet from construction activities and can be natural burrows or artificial burrows constructed according to current design specifications.
 - If artificial burrows are created, these burrows shall be in place at least one week before one-way doors are installed on the currently occupied burrows.
 - One-way doors must be in place for a minimum of 48 hours to ensure that owls have left the burrow before the burrow is excavated.

The Specific Plan area does not provide high-quality habitat for burrowing owls due to the lack of extensive undisturbed grassland habitat, the proximity of future development to the small areas of grassland and ruderal habitats in the urbanized Specific Plan area, and the scarcity of ground squirrel burrows in most of the Specific Plan area. Because the Specific Plan area lacks high-quality burrowing owl habitat and is not known or expected to support breeding burrowing owls or large numbers of nonbreeding birds, loss of habitat as a result of Specific Plan Update would not be significant.

To the extent that burrowing owls use the Specific Plan area, future project activities could disturb foraging and roosting individuals. Because they roost underground, burrowing owls could be injured during construction activities if occupied burrows are destroyed or compacted by heavy equipment. Construction activities that occur in proximity to active burrows may disturb owls to the point of abandoning their burrows, exposing them to increased predation risk as they disperse.

Future development allowed under the Specific Plan Update (under both development scenarios, and with the loop road or multi-use trail) would occur within the same area as the 2013 Specific Plan EIR, with the exception of the University Village neighborhood and Cooling Land Park which are no longer considered a part of the Specific Plan area. Therefore, future development allowed under the Specific Plan Update would result in the same potentially significant impacts to burrowing owl populations and habitats as previously identified in the 2013 Specific Plan EIR. The magnitude of the impact is due to the loss of habitat and not the amount of development that occurs on the parcels

where habitat would be converted, and so therefore, there are not meaningful differences in the level of impact between the Specific Plan Update Scenarios 1 and 2. The following mitigation measures, which have been updated to reflect current guidelines to for preconstruction burrowing owl surveys .

Impact BIO-5: Future projects' construction activities that occur in proximity to active burrows could result in the injury or loss of burrowing owls, resulting in a significant impact to these species.

Mitigation Measures: The following mitigation measures would be incorporated to ensure impacts to western burrowing owls are reduced to less than significant levels.

MM BIO-5.1: **Burrowing Owl Minimization Measures.** To reduce impacts on burrowing owls, the following shall be implemented:

- **Preconstruction Surveys.** Preconstruction surveys for burrowing owls shall be conducted prior to the initiation of construction activities within suitable burrowing owl roosting or nesting habitat (i.e., grassland or ruderal habitats), or within 250 feet of this habitat. During the initial site visit, a qualified biologist shall survey the entire project site and (to the extent that access allows) areas within 250 feet by walking transects with centerlines no more than 50 feet apart and ensure complete visual coverage and looking for suitable burrows that could be used by burrowing owls. If no suitable burrows are present, no additional surveys are required.

If suitable burrows are determined to be present within 250 feet of project impact areas, a qualified biologist shall conduct a second survey to determine whether owls are present in areas where they could be affected by proposed activities. The survey shall last a minimum of three hours, beginning one hour before sunrise and continuing until two hours after sunrise, or beginning two hours before sunset and continuing until one hour after sunset. The first survey may occur up to 14 days prior to the start of construction activities in any given area, and the second survey shall be conducted within two days prior to the start of construction activities.

- **Implement Buffer Zones for Burrowing Owls.** If burrowing owls are detected during the pre-activity survey, a 165-foot buffer, within which no newly initiated construction-related activities should occur, will be maintained between construction activities and occupied burrows to the extent feasible during the nonbreeding season (September 1 through January 31). This buffer may be reduced if a qualified biologist determines that work will not result in damage to

the burrow(s) being used by the owls. Though the species is highly unlikely to breed in the Specific Plan area, owls present between February 1 and August 31 will be assumed to be nesting, and a 250-foot protected area will remain in effect until August 31, or until the burrow is no longer occupied, whichever occurs first.

- **Passive Relocation.** No burrowing owls shall be relocated from burrows during the breeding season (February 1 through August 31). If, during the nonbreeding season (September 1 through January 31), it is infeasible to maintain a buffer around occupied burrow(s) large enough to ensure that the burrow(s) will not be physically disturbed (thus risking injury or mortality of the owl), the owl may be passively relocated from the occupied burrow(s) using one-way doors. Passive relocation shall be performed only by a qualified biologist. One-way doors must be in place for a minimum of 48 hours, during dry conditions, to ensure that owls have left the burrow before the burrow is impacted.

With the implementation of mitigation measure MM BIO-5.1, buildout of the Specific Plan (under both development scenarios, and with the loop road or multi-use trail) would result in a less than significant impact on burrowing owls by ensuring species avoidance during construction through implementation of buffer zones, and by ensuring species members are properly relocated, if necessary, during the non-breeding season. This is the same impact as previously identified in the 2013 Specific Plan EIR.

(Less than Significant Impact with Mitigation Incorporated)

Western Snowy Plover

The 2013 Specific Plan EIR did not address potential impacts on western snowy plovers. Western snowy plovers are not expected to nest or even forage within the Specific Plan area because suitable habitat is absent. However, the species is known to nest in salt panne habitat in Pond SF 2 north of the Specific Plan area in the Don Edwards-San Francisco Bay National Wildlife Refuge. The nearest potential nesting and habitat may be present as close as 300 feet to the Specific Plan area's northern boundary. The USFWS recommends a 600-foot buffer between active snowy plover nests and intensive human activity, i.e., construction activities including heavy ground disturbance, noise, and vibration. If individual project activities in the northwest corner of the Specific Plan area occur within 600 feet of active nests, construction activities could result in the abandonment of nests, and possibly the loss of eggs or young.

Implementation of MM BIO-2.5, MM BIO-2.6, and MM BIO-2.8 would minimize predation-related impacts to the western snowy plover. In addition, the following mitigation measure shall be implemented.

Impact BIO-6: Future project activities in the northwest corner of the Specific Plan area occur within 600 feet of active nests, construction activities could result in the abandonment of nests, and possibly the loss of eggs or young western snowy plover, resulting in a significant impact to these species.

Mitigation Measures: The following mitigation measures would be incorporated to ensure impacts to snowy plovers are reduced to less than significant levels.

MM BIO-6.1: **Seasonal Avoidance and Buffers.** No Specific Plan Update construction activities shall be performed within 600 feet of an active snowy plover nest during the snowy plover breeding season, March 1 through September 14. Prior to the initiation of any activities within 300 feet of the southwest corner of Pond SF 2, north of the Specific Plan area during the period March 1 through September 14, a qualified biologist shall conduct a survey for suitable habitat for nesting snowy plovers, and for active nests. If no suitable nesting habitat or active nests are present within 600 feet of the proposed activity, construction may proceed. If an active nest is present, no construction activities shall commence within 600 feet of the nest until the nest is no longer active.

With implementation of mitigation measure MM BIO-6.1, buildout of the Specific Plan would result in a less than significant impact on the western snowy plover by ensuring species avoidance during construction.

(Less than Significant Impact with Mitigation Incorporated)

Nesting Birds

The 2013 Specific Plan EIR concluded that impacts to nesting birds would be reduced to less than significant with the implementation of Mitigation Measure BIO-3 (see discussion of California Black Rail and Ridgway's Rail for the discussion of impacts to nesting birds under the 2013 Specific Plan).

Construction disturbance during the bird nesting season (typically February 1 through August 31) could result in the incidental loss of eggs or nestlings of native birds, either directly through the destruction or disturbance of active nests or indirectly by causing enough disturbance that adults abandon their nests. Impacts on the California Ridgway's rail and California black rail, burrowing owl, and western snowy plover would be reduced to less than significant levels through implementation of mitigation measures MM BIO-1.12, MM BIO-1.16, and MM BIO-1.17.

Several other special-status birds may nest in or adjacent to the Specific Plan area. The Alameda song sparrow, Bryant's savannah sparrow, San Francisco common yellowthroat, northern harrier, and white-tailed kite are associated with wetland and/or grassland habitats and are known to nest

in or near the Specific Plan area. Impacts to these species were not discussed in the 2013 Specific Plan EIR.

Due to the potential proximity of nesting to Specific Plan activities, eggs or young in nests may be killed or injured during construction activities, or adults may abandon their nests because of construction noise or human presence. Increases in human concentration and activity associated with construction in the vicinity of the project site may also result in an increase in native and nonnative predators that would be attracted to trash left in the work site, and in a reduction in the quality of breeding or foraging habitat caused by the introduction of nonnative vegetation. In addition, increased sedimentation or hazardous material spills from construction activities may result in the temporary or permanent degradation of water quality, which could negatively affect habitat quality for these species. Following completion of construction, increased human activity in and near these species' habitats and near nests could potentially disturb these species to the point that they no longer occupy suitable habitat on or near the project site.

Because these species occur mainly in the undeveloped habitats along the eastern margin of the Specific Plan area, and because the majority of these areas will remain undeveloped, permanent impacts to their breeding and foraging habitats will be limited. Therefore, the permanent loss and/or temporary disturbance nesting and foraging habitat for these species in the Specific Plan area would not result in significant impacts on their regional populations.

However, one to several pairs of any of these species could potentially nest within or in the vicinity of the Specific Plan area (e.g., within 300 feet for raptors and 100 feet for other birds) to potentially be affected by construction activities and subsequent use of the project site. In addition, numerous other, non-special-status birds nest in the Specific Plan area, and they may be impacted by Specific Plan activities in the same ways described above for special-status birds. Given the large size of the Specific Plan area, impacts of construction activities could affect relatively large numbers of nesting birds. Mitigation measures would be implemented as described below.

Impact BIO-7: Construction disturbance during the bird nesting season (typically February 1 through August 31) could result in the incidental loss of eggs or nestlings of native birds, either directly through the destruction or disturbance of active nests or indirectly by causing enough disturbance to result adult birds abandoning their nests.

Mitigation Measures: Future projects will implement the following mitigation measures to ensure impacts to nesting birds are reduced to less than significant levels.

MM BIO-7.1: To minimize impacts on nesting birds, the following shall be implemented:

- **Seasonal Avoidance and Buffers.** To the extent feasible, vegetation removal, demolition, and initiation of grading and other construction activities should be scheduled to avoid the

nesting season. If such activities take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game code will be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31.

- **Preconstruction/Pre-disturbance Surveys.** If it is not possible to schedule vegetation removal, demolition, and construction activities between September 1 and January 31, then preconstruction surveys for nesting birds shall be conducted by a qualified biologist to ensure that no nests of migratory birds will be disturbed during project implementation. These surveys shall be conducted no more than seven days prior to the initiation of tree removal, demolition, ground disturbance, or construction activities for each construction phase. During this survey, the biologist shall inspect all potential nesting habitats (e.g., trees, shrubs, buildings, electrical towers, and the ground) in and immediately adjacent to the impact areas for migratory bird nests.
- **Buffers.** If an active nest is found within areas that would be disturbed by project activities, the qualified biologist shall determine the extent of a construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species, though buffers may be reduced by the biologist based on intervening structures or vegetation, the magnitude of disturbance produced by the activity, and the level of human activity to which the birds are already habituated), to ensure that no active nests of species protected by the MBTA and California Fish and Game Code will be disturbed during project implementation.
- **Inhibition of Nesting.** If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, and other vegetation) that are scheduled to be removed by the project may be removed prior to the start of the nesting season (e.g., prior to February 1) to reduce the potential for establishment of nests in areas to be disturbed.

With implementation of mitigation measure MM BIO-7.1, buildout of the Specific Plan Update would result in a less than significant impact on nesting birds.

(Less than Significant Impact with Mitigation Incorporated)

Non-Breeding Special Status Animals

The 2013 Specific Plan EIR did not include a discussion of potential impacts to non-breeding special status animals with implementation of the proposed Specific Plan. Several special-status bird and mammal species occur in the Specific Plan area as non-breeding migrants, transients, or foragers, but they are not known or expected to breed or occur in large numbers in the project area. These include the California least tern, tricolored blackbird, and loggerhead shrike, and mammals such as the pallid bat, Townsend’s big-eared bat, and western red bat.

Implementation of the proposed Specific Plan Update would not result in the injury or mortality of any individuals of these species because none of these species are expected to occur on the site in large numbers or use the site regularly.

Construction and operation of development allowed under the proposed Specific Plan Update could result in the permanent loss and temporary disturbance of grassland or ruderal/barren foraging habitat or roosting sites for western red bats. In addition, construction-related disturbance may result in the alteration of foraging patterns (e.g., avoidance of work sites because of increased noise and activity levels during project activities) of a few individuals of these species. However, the Specific Plan area does not provide foraging habitat that is used regularly or by large numbers of any of these species and is not heavily relied upon by a breeding pair of any of these species. Thus, impacts on these species and their foraging habitats resulting from independent projects would be limited. Accordingly, the proposed Specific Plan Update activities would not result in substantial reductions in local or regional populations of these species and would affect a very low proportion of regionally available habitat. Therefore, buildout of the proposed Specific Plan Update would result in a less than significant impact on non-breeding special-status animals.

(Less than Significant Impact)

Increased Lighting

The 2013 Specific Plan EIR did not include a discussion of potential impacts from increased lighting associated with implementation of the 2013 Specific Plan. Future development projects allowed under the proposed Specific Plan Update would construct buildings, parking areas, and pedestrian walkways, and a possible loop road or multi-use path that could increase the amount of lighting within and around the Specific Plan area. Lighting would be the result of fixtures illuminating buildings, building architectural lighting, parking lot and pedestrian lighting, as well as lighting fixtures along the loop road and multi-use path. Depending on the location, direction, and intensity of the project’s exterior lighting elements, lighting can potentially spill into adjacent natural areas, resulting in an increase in lighting compared to existing conditions. Areas to the west and south of

the Specific Plan area are primarily developed areas that do not support sensitive species that might be significantly impacted by illuminance from the project. However, areas along the eastern and northern margins of the Specific Plan area include or are adjacent to salt marsh habitats supporting a variety of wildlife species, including sensitive species such as the salt marsh harvest mouse, salt marsh wandering shrew, California black rail, California Ridgway's rail, western snowy plover, and other special-status birds.

Artificial lighting may indirectly impact mammals and birds by increasing the nocturnal activity of predators such as owls, hawks, and mammalian predators. The presence of artificial light may also influence habitat use by rodents and by breeding birds by causing avoidance of well-lit areas, resulting in a net loss of habitat availability and quality.

Up-lighting refers to light that projects upwards above the fixture. There are two primary ways in which the luminance of up-lights might impact the movements of birds. First, local birds using habitats on a site may become disoriented during flights among foraging areas and fly toward the lights, colliding with the lights or with nearby structures. Second, nocturnally migrating birds may alter their flight direction or behavior upon seeing lights; the birds may be drawn toward the lights or may become disoriented, potentially striking objects such as buildings, adjacent power lines, or even the lights themselves.

Wildlife species using the undeveloped habitats within and adjacent to the Specific Plan area may be subject to increased predation, decreased habitat availability, and alterations of physiological processes if future projects produce appreciably greater illuminance than the existing conditions. New lighting has some potential to attract and/or disorient birds, especially during inclement weather when nocturnally migrating birds descend to lower altitudes. As a result, some birds moving along the San Francisco Bay at night may be (1) attracted to the Specific Plan area, where they are more likely to collide with buildings, and/or (2) disoriented by night lighting, potentially causing them to collide with the buildings. This impact on local wildlife populations could be a potentially significant due to the high ecological value of these adjacent habitat areas and the rarity of some of the species inhabiting these areas. The magnitude of the impact is due to the need for lighting within the Plan and not the amount of development that occurs on the parcels, and so therefore, there are not meaningful differences in the level of impact between the Specific Plan Update Scenarios 1 and 2.

Mitigation measures would be implemented, under Specific Plan Update Scenarios 1 and 2, as described below.

Impact BIO-8: Increased lighting from future development adjacent to sensitive habitats could result in a significant impact on wildlife such as indirectly increasing predation and bird collisions.

Mitigation Measures: Future projects under the Specific Plan Update (under Scenarios 1 and 2), including the loop road and multi-use path shall implement the following mitigation measures to reduce lighting spillover or glare to less than significant levels.

MM BIO-8.1: Exterior lighting shall be minimized (e.g., by turning lights off) in accordance with recommendations from the International Dark-Sky Association from midnight until dawn, at a minimum, except as needed for safety and City code compliance. Exterior lighting within the Specific Plan area shall be shielded to block illumination from shining upward or outward into the sensitive habitats (i.e., salt marshes) within and adjacent to the Specific Plan area. Uplighting shall be avoided.

MM BIO-8.2: Spillage of lighting from building interiors shall be minimized using occupancy sensors, dimmers, blinds, or other mechanisms from midnight until dawn, at a minimum, during migration seasons (February through May and August through November).

With implementation of mitigation measure MM BIO-8.1 and MM BIO-8.2, buildout of the proposed Specific Plan Update would result in a less than significant impact on wildlife species by minimizing lighting as part of the project design.

(Less than Significant Impact with Mitigation Incorporated)

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- b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?
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As discussed in Existing Conditions above and shown on Figure 3.4-1, the northeastern section of the Specific Plan area contains northern coastal salt marsh, which is considered a sensitive habitat by the CDFW. Loss or degradation of northern coastal salt marsh habitat could result from the construction of the loop road or multi-use path. The construction of the loop road could result in a greater loss of this habitat, as shown on Figure 3.4-2, than the multi-use path (i.e. without the loop road) because the loop road would have a larger cross-section extending further east into the marsh habitat. None of the planned development on private property within the residential, office/R&D, industrial, retail, tenant amenity, or civic uses under the Specific Plan Update (Scenarios 1 and 2) are proposed within the northern coastal salt marsh habitat. Future development adjacent to the habitat could degrade the northern coastal salt marsh community, as discussed below.

Nonnative and Invasive Species

The 2013 Specific Plan EIR did not discuss potential impacts due to nonnative and invasive species. Nonnative animals may benefit from Specific Plan activities. Nonnative animals such as house mice, Norway rats, black rats, and feral cats can compete with and/or prey upon sensitive native animals. Provision of shelter and food for nonnative animals, particularly as a result of outdoor feeding of feral cats and improper disposal of human food waste, subsidizes populations of these nonnative species at the expense of native animals. The magnitude of the impact is unrelated to the amount of development that occurs on the parcels within the Plan, and so therefore, there are not

meaningful differences in the level of impact between Specific Plan Update Scenarios 1 and 2. Implementation of MM BIO-1.10 and BIO-1.11 would reduce these impacts to less than significant levels by ensuring food is properly disposed of so as not attract nonnative species. Furthermore, a number of non-native, invasive plant species occur in the Specific Plan area and have the potential to cause ecological impacts if they spread into native, sensitive habitats. These include perennial peppergrass, ice plant, yellow star-thistle, fennel, black mustard, and wild oats.

Construction and operation of future development allowed under the Specific Plan Update would result in soil disturbance in areas adjacent to sensitive salt marsh and tidal slough habitats. Activities such as trampling, equipment staging, and vegetation removal are all factors that would contribute to disturbance. Areas of disturbance could serve as the source for promoting the spread of nonnative species, which could degrade the ecological values of the wetlands that occur in and immediately adjacent to the Specific Plan area, and adversely affect native plants and wildlife that occur there. The introduction or spread of invasive weeds into sensitive wetland habitats would constitute a significant impact. Future development under the proposed Specific Plan update would implement the mitigation measure listed below.

Impact BIO-9: Construction and operation of future development would result in soil disturbance adjacent to sensitive salt marsh and tidal slough habitats which could result in the spread of non-native plant species in wetland areas in and adjacent to the Specific Plan area.

Mitigation Measures: Future projects adjacent to northern coastal salt marsh habitat shall implement the following mitigation measures to reduce potential impacts to the northern coastal salt marsh to less than significant levels.

MM BIO-9.1: Implement Invasive Weed Best Management Practices (BMPs). The invasion and/or spread of noxious weeds will be avoided by the use of the following invasive weed BMPs:

- Prohibit the use of moderate or highly invasive and/or noxious weed (as defined by California Department of Food and Agriculture) for landscaping.
- During project construction, all seeds and straw materials used in the Specific Plan area shall be weed-free rice (or similar material acceptable to the City) straw, and all gravel and fill material will be certified weed-free to the satisfaction of the City. Any deviation from this will be approved by the City.
- During project construction within, or within 100 feet of, tidal salt marsh, open water, or tidal slough habitats, vehicles and all equipment shall be washed (including wheels, undercarriages, and bumpers) before and after entering the proposed project footprint. Vehicles will be cleaned at existing construction yards or car washes.

- Following construction of project, a standard erosion control seed mix (acceptable to the City) from a local source, and free of invasive species, will be planted within the temporary impact zones on any disturbed ground that will not be under hardscape, landscaped, or maintained. This will minimize the potential for the germination of the majority of seeds from nonnative, invasive plant species.

With implementation of mitigation measure MM BIO-1.22, buildout of the proposed Specific Plan Update, under either scenario, and with the loop road or multi-use trail, would not contribute to the spread of nonnative and invasive species in adjacent salt marsh habitats. **(Less than Significant Impact with Mitigation Incorporated)**

Waters of the US/State

Waters of the U.S./state are present in the form of the tidal salt marsh, open water, and tidal slough habitats in the eastern portion of the Specific Plan area. The 2013 Specific Plan EIR determined that wetland habitat could be disturbed to install subsurface infrastructure, or filled and lost as a consequence of development under the Specific Plan, and that these impacts would be less than significant with implementation of Mitigation Measure BIO-5 (see below).

2013 Specific Plan EIR Mitigation Measure BIO-5:

- During or prior to project design, a wetland delineation of the project area shall be conducted to determine precise boundaries of jurisdictional wetlands. If wetlands under State or federal jurisdiction occur in the construction areas and involve the placement of fill or dredged materials or other alteration, the necessary and appropriate permits and approvals from responsible resources agencies shall be secured. As appropriate for the type of permit to be considered, options that avoid, minimize, or mitigate potential impacts on jurisdictional wetlands shall be evaluated. Conditions of approval attached to the permits shall be followed. In addition, the following mitigations as described below shall be carried out. Sensitive habitat areas including wetlands adjacent to, but outside of, the construction area shall be demarcated with orange construction fencing to exclude workers, vehicles, and equipment.
 - Construction and staging areas shall be flagged to clearly define the limits of the work area. The locations of habitats to be avoided shall be identified in the contract documents (plans and specifications) as “Sensitive Biological Resources – Do Not Disturb.”
 - Jack-and-bore or other trenchless methods shall be used to reduce the need for surface construction within identified sensitive habitats and exclusion zones, and construction activities and vehicles shall be restricted to a specified right-of-way.
 - Where possible, pre-project topography shall be restored.
 - Where possible, trenches shall be worked from only one side to minimize impacts on adjacent habitat.

- Watering of exposed earth shall be conducted consistent with construction BMPs to minimize dust production.
- Trench lines shall be reseeded with native vegetation appropriate for the affected habitat type, and/or a double-trenching technique shall be used through sensitive habitats to help preserve the existing seedbank.
- When wetland impact avoidance is not possible, mitigation in the form of on-site or offsite habitat restoration/revegetation, or purchase of mitigation bank credits shall be secured in accordance with resource agency guidelines, and subject to approval of all resource agencies with jurisdiction on the site.

Future development allowed under the Specific Plan Update (under both development scenarios with and the loop road or multi-use trail) would occur within the same area as the 2013 Specific Plan EIR, with the exception of the University Village neighborhood which is no longer considered a part of the Specific Plan area. If the loop road is constructed it would impact wetlands (6.3 acres) and other waters of the U.S./state where it would overlap open water and tidal salt marsh habitat. If the multi-use trail is constructed without the loop road, 3.8 acres of wetlands would be impacted. Therefore, future development allowed under the proposed Specific Plan update would result in the same potentially significant impacts to wetlands and other waters of the U.S./state as previously identified in the 2013 Specific Plan EIR.

Shading from future developments along the eastern portions of the Specific Plan area could affect vegetation in salt marshes. Future developments along the eastern portion of the Plan area have some potential to cast shadows over tidal marsh habitats to the east during the late afternoon and evening, when the sun is in the west. However, as depicted on Figure 2.3-2 (Maximum Building Heights), future buildings along the eastern portions of the Plan area, adjacent to the sensitive salt marshes, are limited to lower heights (35 to 60 feet above grade), compared to building heights (up to 120 feet above grade) in other portions of the Plan area. All new buildings would be constructed outside the 100-foot BCDC setback, therefore, limiting the amount of shade that would reach the tidal salt marsh habitat throughout the day. These marshes are also expected to remain open to the sky to the north, south, and east, and are expected to receive enough light that shading from the buildings would not result in substantial adverse effects on marsh vegetation.

Construction activities associated with future development allowed under the proposed Specific Plan Update could result in impacts on water quality, which would degrade these sensitive habitats. Construction projects in California causing land disturbances that are equal to one acre or greater must comply with state requirements to control the discharge of stormwater pollutants under the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities. Prior to the start of construction/demolition, a Notice of Intent (NOI) must be filed with the State Water Board describing the project. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and maintained during the project and it must include the use of BMPs to protect water quality until the site is stabilized.

Standard conditions under the Construction General Permit require that the applicant utilize various measures including: on-site sediment control BMPs, damp street sweeping, temporary cover of disturbed land surfaces to control erosion during construction, and utilization of stabilized construction entrances or wash racks, among other elements. Refer to Section 3.10 Hydrology and Water Quality. Implementation of mitigation measures MM BIO-1.14 and BIO-1.15 would reduce such water-quality impacts. Nevertheless, in the absence of additional mitigation measures presented below, proposed Specific Plan Update construction activities adjacent to the salt marsh habitat could result in significant impacts to jurisdictional wetlands and other waters. The magnitude of the impact is unrelated to the amount of development that occurs within the Specific Plan area, and so therefore, there are not meaningful differences in the level of impact between the Update Scenarios #1 and #2, in that they all propose development in the same locations and have the same potential to impact jurisdictional waters. The following mitigation measures, which have been updated to reflect the current standards for protecting sensitive habitats (including wetlands) would be implemented.

Impact BIO-10: Future projects adjacent to the salt marsh habitat could result in a significant impact to jurisdictional waters of the state or U.S. habitat.

Mitigation Measures: Future projects adjacent to the salt marsh habitat shall implement the following mitigation measures to reduce potential impacts to jurisdictional waters to less than significant levels.

MM BIO-10.1: **Jurisdictional Waters Avoidance and Minimization Measures.** The following measures will be implemented to avoid and minimize impacts to jurisdictional waters to less than significant levels.

- During or prior to project design, a wetland delineation of the project area shall be conducted to determine precise boundaries of jurisdictional wetlands and other waters. Impacts to any jurisdictional habitats shall be avoided to the extent practicable. If wetlands or other waters under state or federal jurisdiction occur in the construction areas and involve the placement of fill or dredged materials or other alteration, the necessary and appropriate permits and approvals from responsible resource agencies shall be secured. As appropriate for the type of permit to be considered, options that avoid, minimize, or mitigate potential impacts on jurisdictional wetlands shall be evaluated. Conditions of approval attached to the permits shall be followed.
- Sensitive habitat areas including wetlands adjacent to, but outside of, the construction area shall be demarcated with orange construction fencing to exclude workers, vehicles, and equipment.

- The locations of habitats to be avoided shall be identified in the contract documents (plans and specifications) as “Sensitive Biological Resources – Do Not Disturb.”
- Jack-and-bore or other trenchless methods shall be used as feasible to reduce the need for surface construction within identified sensitive habitats and exclusion zones, and construction activities and vehicles shall be restricted to a specified right-of-way.
- Temporarily impacted wetlands and other waters shall be restored in place based on a restoration plan prepared by a qualified biologist and approved by the City.
- Where possible, trenches shall be worked from only one side to minimize impacts on adjacent habitat.
- Watering of exposed earth shall be conducted consistent with construction BMPs to minimize dust production.
- Trench lines shall be reseeded with native vegetation appropriate for the affected habitat type, and/or a double-trenching technique shall be used through sensitive habitats to help preserve the existing seedbank.

MM BIO-10.2:

Jurisdictional Waters Compensatory Mitigation. If impacts to jurisdictional wetlands or other waters cannot be avoided, compensatory mitigation shall be provided as follows (or as otherwise required by conditions of applicable resource agency permits) to reduce impacts to less than significant impacts.

- Compensatory mitigation shall be provided via the purchase of credits from a wetland mitigation bank; project-specific mitigation via the creation or restoration of the same general type of wetlands/waters impacted; or some combination of the two approaches. Compensatory mitigation shall be provided at a minimum ratio of 2:1 (mitigation: impact) on an acreage basis if project-specific mitigation is performed or 1:1 if credits are purchased from a mitigation bank. Mitigation performed for loss of salt marsh harvest mouse and salt marsh wandering shrew habitat, as described in MM BIO-5, may be adequate compensation for impacts to jurisdictional waters if performed via purchase of credits in a wetland mitigation bank and/or creation of suitable wetlands as described in the following bullet point.
- If project-specific mitigation is provided as compensatory mitigation, a qualified biologist will prepare an HMMP describing the measures that will be taken to create, restore, or enhance

appropriate habitats and to monitor mitigation success. The HMMP will include, at a minimum, the following:

- A summary of project impacts on jurisdictional habitats and the proposed mitigation of these impacts;
- A description of the location and boundaries of the mitigation site and a description of existing mitigation site conditions;
- A description of measures to be undertaken, if necessary, to create, restore, or enhance appropriate habitats;
- Proposed management activities, such as management of invasive plants, to maintain high-quality habitat conditions;
- A description of community monitoring measures on the mitigation site, including specific, objective goals and objectives, performance indicators, success criteria, monitoring methods, data analysis, reporting requirements, and monitoring schedule. At a minimum, success criteria will include demonstration of at least 75 percent cover by native wetland plants within the mitigation area. Monitoring shall occur until these criteria are achieved but for no less than five years;
- A description of the HMMP's adaptive component, including potential contingency measures for mitigation elements that do not meet performance criteria; and
- A description of the funding mechanism to ensure the long-term maintenance and monitoring of the mitigation lands.

The HMMP will be approved by the City and any agencies involved in issuing permits for the specific project in question (e.g., USACE and RWQCB) prior to the initiation of impacts to jurisdictional wetlands or other waters.

With implementation of mitigation measures MM BIO-1.22 through MM BIO-1.24, buildout of the proposed Specific Plan update would result in a less than significant impacts to jurisdictional wetlands.

(Less than Significant Impact with Mitigation Incorporated)

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

The 2013 Specific Plan EIR determined that wetland habitat could be disturbed to install subsurface infrastructure or filled and lost as a consequence of development under the Specific Plan, and that these impacts would be less than significant with implementation of Mitigation Measure BIO-5, presented above in Impact BIO-2.

Future development allowed under the Specific Plan Update (under both development scenarios with the loop road or multi-use path) would occur within the same area as the 2013 Specific Plan EIR, with the exception of the University Village neighborhood which is no longer considered a part of the Specific Plan area. Therefore, future development allowed under the Specific Plan Update would result in the same potentially significant impacts to protected wetlands as previously identified in the 2013 Specific Plan EIR. In particular, if the loop road (which includes a multi-use path) or multi-use path by itself are constructed it would impact wetlands and other waters of the U.S./state where it would overlap open water and tidal salt marsh habitat. If the loop road with the multi-use path is constructed, this would result in the loss of more wetlands compared to the construction of the multi-use path (without the loop road), as depicted on Figure 3.4-2. As discussed under Impact BIO-2 above, with implementation of MM BIO-1.22 through MM BIO-1.24, buildout of the proposed Specific Plan Update under either Scenario 1 or 2 would result in a less than significant impact to jurisdictional wetlands and other waters.

(Less than Significant Impact with Mitigation Incorporated)

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

The 2013 Specific Plan EIR concluded that implementation of the Specific Plan would not interfere with the movement of native or migratory fish or wildlife species or impede the use of native wildlife nursery sites, including within the salt marsh habitat along the east side of the plan because no development is proposed within this wildlife corridor and implementation of Specific Plan bird-safe policies would ensure less than significant impacts to native and migratory birds related to collisions with buildings.

As discussed in Section 3.4.1.2, the Specific Plan area is heavily urbanized and does not provide a particularly important area for movement by non-flying wildlife due to structural impediments. However, animals are able to move relatively unimpeded along the rail line on the northern edge of the Specific Plan area and along the upland/tidal marsh interface on the eastern edge of the Specific Plan area. However, the construction of the loop road or multi-use trail would impede wildlife movement in these areas by increasing human activity (and potentially vehicular activity with the loop road) and lighting within the narrow strip of wetland-upland ecotone in the northeast part of

the Specific Plan area where wildlife movement is expected to be concentrated. Given the importance of wildlife movement along the edge of the baylands to populations of mammals, this would be a significant impact. Implementation of Mitigation Measure MM BIO-1.4 (including restoration of ecotone vegetation on the marsh side of the loop road or multi-use trail) and Mitigation Measure MM BIO-1.20 (to minimize lighting impacts) would mitigate the impacts of the loop road on wildlife movement to less than significant levels.

Due to the proximity of the Specific Plan area to the edges of the San Francisco Bay, birds moving along the Pacific Flyway will fly past the Specific Plan area in moderate abundance during spring and fall migration. Buildout of the Specific Plan Update would intensify development and result in the construction of new buildings along the urban margins of the Specific Plan area. In turn, birds may encounter these buildings and collide with any glazing that is present on their facades. Given that a moderate number of migratory land birds are expected to occur along the eastern margin of the Specific Plan area, there is potential for avian collisions to occur more frequently with buildout of the Specific Plan. The magnitude of the impact would be related to the extent of glazing on buildings, particularly within the primary avian collision zone (within 60 feet above the ground). Thus, the magnitude of this impact is potentially greater under Specific Plan Update Scenario #2, which would allow more development (potentially providing more glazing in facades), than under Specific Plan Update Scenario #1.

The Specific Plan Update includes bird-safe design standards that would reduce avian collisions (refer to Appendix C). The following Specific Plan Update standards would be implemented to enhance and modify the standards to ensure buildout of the Specific Plan Update results in less than significant impacts to migratory birds.

Proposed Specific Plan Update Bird Safe Standard 6.8.4:

- **2. Façade Glazing.** Bird-safe glazing treatments shall be used such within the façade collision zone (the area within 60 feet above the ground) such that no more than 10 percent of a building façade consists of untreated glazing.
- **3. Feature Collision Zone Treatment.** Bird-safe glazing treatments shall be used on the entirety of a feature collision zone's glazing.
- **4 Bird-Safe Glazing Details.** Bird-safe glazing treatments shall include vertical elements that are at least one-quarter inch wide, with a minimum spacing of four inches. In addition, treatments shall include horizontal elements that are at least one-eighth inch wide, with a maximum spacing of two inches.
- **5. Glazing Design.** Bird-friendly glazing treatments can include the use of opaque glass, the covering of clear glass surface with patterns, the use of paned glass with fenestration patterns, and the use of external screens over non-reflective glass. All façade glazing shall have reflectivity ratings no greater than 30 percent.

- **6. Bird-safe glazing treatments may include any of the following:**
 - Fritting
 - Netting
 - Permanent stencils
 - Frosted glass
 - Exterior screens
 - Physical grids placed on the exterior of glazing
 - Ultraviolet (UV) patterns visible to birds
- **7: Wind Generation.** Any wind-generation device shall be a vertical generator that presents a solid appearance.
- **8 Modification.** The City may waive or reduce any of this chapter's bird safe design requirements provided that other methods implemented to prevent bird strikes are reviewed and approved by a qualified biologist (indicating that proposed construction will not pose a collision hazard to birds). Similarly, it may impose additional design measures if proposed measures are deemed insignificantly protective of bird strikes. Confirmation of compliance with this policy shall be provided by a qualified biologist prior to issuance of the planning or design review permit for a given project.

With implementation of the Specific Plan Update Standards 6.8.4, Numbers 2 through 8. above placing strict requirements for glazing treatments and lighting on new development, the Specific Plan Update would result in less than significant impacts to native wildlife corridors and migratory birds.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded that the northern part of the loop road, and eastern portions of the Plan area could be located within the 100-foot BCDC jurisdiction area and San Francisco Bay Area Wetlands Ecosystem Goals Project goal of a 300-foot buffer (or no less than 100 feet where land uses or other factors preclude this) from wetland areas. The 2013 Specific Plan EIR concluded that although future development could occur within the recommended buffer areas, future projects within the buffer areas would coordinate with BCDC and San Francisco Regional Water Quality Control Board (RWQCB). Therefore, the conflict with these buffer area standards would not be significant.

Applicants for future private developments and the City when implementing the loop road (or multi-use trail) within 100 feet of the Bay shoreline band would coordinate with BCDC to obtain a permit and with the RWQCB for developments within 300 feet of wetland areas (or no less than 100 feet from wetland areas where land uses or other factors preclude this). For these reasons, future development under Specific Plan Update would not conflict with the buffer restrictions established by these agencies.

In addition, the East Palo Alto Municipal Code Section 18.28 contains the Tree Preservation Ordinance, which defines protected trees in the City, and sets forth protection requirements. Future development under the Specific Plan Update would conform with the requirements of the Tree Preservation Ordinance, including the requirement that future projects conduct tree surveys to document existing trees, identify protection measures for trees to be preserved and sufficient replacement plantings, consistent with City requirements, to offset any tree removals. At the discretion of the City's designated Review Authority, replacement trees may be required as a condition of issuance of a protected tree removal permit, or as a condition of any discretionary permit for development or redevelopment (SMC Chapter 18.28.10). The magnitude of the impact is due to the loss of trees and not the amount of development that occurs on the parcels where trees would be removed, and so therefore, there are not meaningful differences in the level of impact between the 2013 Specific Plan and the proposed Update scenarios #1 and #2. Therefore, the Specific Plan update, under either scenario, would not conflict with the City's Tree Preservation Ordinance.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded that the Specific Plan area is not covered by an adopted Habitat Conservation or Natural Community Conservation Plan and, therefore, would not conflict with these plans. Consistent with the 2013 Specific Plan EIR conclusions, the Plan area is not located within any such habitat plan, and implementation of the Specific Plan update would not conflict with provisions of any such plan.

(No Impact)

3.4.2.2 Cumulative Impacts

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

The 2013 Specific Plan EIR concluded that implementation of the Specific Plan would not result in a significant cumulative loss of biological resources due to direct loss of the resources, increased use near resources, or development that would remove these resources.

Cumulative Impacts to Sensitive Species and Habitat, and Wetlands

The geographic area for cumulative impacts on special-status species includes the Specific Plan area and areas adjacent to the Specific Plan area. As described above, implementation of the

Specific Plan Update has the potential to impact nesting birds, special status plant and animal species, wetland, and riparian habitat. Future development under the Specific Plan Update would undergo site-specific analyses for their potential to adversely affect sensitive natural communities, habitats, and special status plant and animal species. Any impacts to such San Francisco Bay marsh and tidal slough habitats would necessitate resource agency permits. Additionally, future development would comply with all existing regulations (e.g., MBTA, CDFW codes, General Plan policies, Municipal Code, and Specific Plan policies) and would be subject to the City's development review process. Future projects in jurisdictions adjacent to the Specific Plan area would also be subject to the local agency's development review process and the same or similar regulations to reduce impacts to biological resources. The adjacent SAFER Bay project would construct a levee along the shoreline, which would impact tidal marsh and tidal slough habitats. However, the SAFER Bay project is undergoing environmental review and mitigation measures will be included to reduce the impacts to these habitats. In addition, regional restoration projects, including the Cooley Landing tidal restoration project that restored tidal marsh in the Ravenswood Open Space Preserve, and the ongoing South Bay Salt Ponds Restoration Project, will result in substantial enhancement of tidal habitat, improving the quality of the types of sensitive habitats and species that may be impacted by Specific Plan Update activities. With implementation of mitigation measures that reduce impacts tidal habitats and the planned restoration projects, future projects would result in less than significant cumulative impacts to sensitive habitats and species.

As discussed under Impact BIO-5, future developments and the loop road and multi-use path, within 100 feet of the Bay shoreline band would coordinate with BCDC to obtain a permit and RWQCB for developments within 300 feet of wetland areas (or no less than 100 feet from wetland areas where land uses or other factors preclude this). For above reasons, the cumulative biological resources impacts would be less than significant. **(Less than Significant Cumulative Impact)**

Cumulative Impacts to Trees

The geographic area for cumulative impacts to trees includes the Specific Plan area and areas adjacent to the Specific Plan area. Future cumulative projects that include tree removal would be required to comply with the East Palo Alto Municipal Code Section 18.28 tree removal requirements. Therefore, buildout of the Specific Plan Update would not result in significant cumulative impacts to trees.

(Less than Significant Cumulative Impact)

3.5 Cultural Resources

The following discussion is based, in part, on a Cultural Resources Report prepared for the Specific Plan Update by Basin Research Associates on August 17, 2022. The Cultural Resources Report contains sensitive archaeological resources information and is, therefore, on file with the City.

3.5.1 Environmental Setting

3.5.1.1 *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.

Senate Bill 18

The intent of SB 18 is to aid in the protection of traditional tribal cultural places through local land use planning by requiring city governments to consult with California Native American tribes on projects which include adoption or amendment of general plans (defined in Government Code Section 65300 et seq.) and specific plans (defined in Government Code Section 65450 et seq.). SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process.

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.

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>.

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

Local

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating impacts to cultural resources resulting from planned development within the City, including the following:

Policy	Description
<i>Parks, Open Space, and Conservation</i>	
9.1	Archaeology, paleontology, and natural resources. Protect areas of important archaeological paleontological and natural resources.
9.2	Historic buildings and sites. Protect and conserve buildings or sites of historic or cultural significance to contribute to the character of the community.
9.7	Construction impacts. Suspend development activity when archaeological resources are discovered during construction. The project sponsor will be required to retain a qualified archaeologist to oversee the handling of resources in coordination with appropriate local and State agencies and organizations and local Native American representatives, as appropriate.

City of East Palo Alto Historic Resources Inventory

The City of East Palo Alto has an historic resources inventory that provides information about the City’s history and historic resources in the City. The historic resources listed include landmarks, buildings, and sites that have historical or architectural significance to the community. The inventory also indicates if resources listed are eligible for the CRHR or National Register of Historic Places.

3.5.1.2 Existing Conditions

Historic Resources

The types of cultural resources that meet the definition of historical resources under CEQA generally consist of districts, sites, buildings, structures, and objects that are significant for their traditional, cultural, and/or historical associations 50 years or older.²¹

Historic/Potential Historic Resources within the Specific Plan Area

Recorded Historic Buildings and Structures Identified in the Historic Resources Inventory and the 2011 and 2022 Cultural Resources Assessments

A cultural resources assessment, which included a records search/literature review of historic resources within the Specific Plan boundary and within one quarter mile of this boundary, was completed for the Specific Plan area in 2011 as a part of the 2013 Specific Plan EIR. The 2011 literature review included a list of various state and/or federal historically or architecturally significant sites, structures, and landmarks in the Specific Plan area. The City's Historic Resources Inventory was also reviewed to identify historic resources as a part of the 2013 Specific Plan EIR. Given the passage of time since the 2011 assessment, an updated cultural resources assessment was completed for the Plan area in 2022. The 2022 cultural resources assessment identified cultural resources within the 350-acre 2013 Specific Plan boundaries. The current 207-acre Specific Plan area (which excludes Cooley Landing Park and University Village) is located within the 350-acre 2013 Plan area boundaries. Based on the 2022 cultural resources assessment, the following historical resources eligible to be listed on the NRHP/CRHR were identified in the Specific Plan area:

- **Hetch Hetchy Aqueduct Bay Division Pipeline (BDPL) Number (No.) 1 and No. 2 Alignment and Historic District (eligible for the NRHP/CRHR):** The BDPL No. 1 and No. 2 crosses through the Specific Plan area between Tulane Avenue and Rutgers Street; this segment is a part of 21-mile-long water pipelines that run between the Irvington Tunnel Portal in the City of Fremont and the Pulgas Tunnel Portal near Redwood City in unincorporated San Mateo County. The pipelines were constructed and placed in service between 1925 and 1936 and are contributors to the BDPL No. 1 and No. 2 Historic District, evaluated as eligible for the NRHP and CRHR under Criteria A/1 and C/3. The district is considered significant for its association with the Hetch Hetchy water system with a period of significance from 1924 to 1936. Also, this resource was considered eligible under CRHR Criterion 2 for its association with Michael M. O'Shaughnessy, the City of San Francisco Chief Engineer responsible for the

²¹ Based on the guidelines of CRHR and NRHP, a property/structure can be considered to be of historical significance within the past 50 years if it can be demonstrated that it is of exceptional importance. California Office of Historic Preservation, Department of Parks and Recreation. California Office of Historic Preservation Technical Assistance Series #6, California Register and National Register: A Comparison (for purposes of determining eligibility for the California Register). June 2011.

design and construction of the Hetch Hetchy Aqueduct and associated water control structures and features.

- **Runnymede District:** The Runnymede district is a potential historic district partially identified within the Specific Plan area, south of Bay Road. The potential district was a ‘utopian’ community founded in East Palo Alto by Charles Weeks in 1916. This community was also known as the Poultry Colony given it consisted of poultry farms. By 1922, Runnymede was over 640 acres with a population of approximately 1,200 individuals on small farms. The colony was one of the largest poultry producers in the United States. Farming ceased by the early 1930s, which was due in part to the departure of Charles Weeks between 1921 and 1923. This district may be eligible under NRHP Criterion A, as it is associated with events that have made a significant contribution to the broad patterns of local history.

The following historic sites and structures were identified in the Specific Plan area that are on the City’s historic resource inventory:

- **Hunter and Shackleford Former Brick Factory Clay Pit (within Ravenswood Townsite and is on the City’s historic inventory).** The Ravenswood Townsite (which included hotels, saloons, and residential dwellings) was located in the eastern portion of the Specific Plan area, near the end of Bay Road in the 1850s through the 1890s. The Hunter and Shackleford Brick Factory was located near what is now Tara Road and Bay Road from 1874 to 1884 on five acres. This factory was Ravenswood’s main business enterprise during the 1870s and early 1880s. The clay pit was exhausted in 1884 and the factory was closed, and was demolished in 1942. The former clay pit was previously located in Jack Farrell Park (300 feet west of the Specific Plan area), north of Bay Road and bounded by Fordham Street to the west, between Michigan and Notre Dame Avenues.

Historic/Potential Historic Resources Near the Specific Plan Area

Nearby historic and potential historic resources include the Southern Pacific Railroad Spur Dumbarton Cutoff (P-41-001877), 30 feet north of the Specific Plan area (constructed in 1911). The railroad spur segment crosses Bay Road immediately east of Clark Avenue.

The Dumbarton Cutoff Line, within the Dumbarton Cutoff Linear Historic District, was determined eligible as a contributor to the historic district under NRHP Criteria A and B (and CRHR Criteria 1 and 3) for its important association with system-wide improvements to the Southern Pacific Railroad in the early 20th century and national defense efforts during World War I and World War II and for its important association with E.B. Harriman, the president of the Southern Pacific Railroad who initiated the construction of the Dumbarton Cutoff. The cutoff line is considered a historic resource. No other historic properties or districts are located adjacent to the Specific Plan area.

Historic Resources Identified in the City's Historic Resources Inventory

As described in the 2013 Specific Plan EIR, the City of East Palo Alto has a Historic Resources Inventory Report; the report was last updated in 1994. Potential historic artifacts/structures adjacent to the Specific Plan area include:

- **C-390 Survey Marker/Pulgas East Base Monument (relocated to Jack Farrell Park, approximately 300 feet west of the Specific Plan area, and is on the City's historic inventory).** This sandstone monument, constructed in 1853, was one of many built by the United States Coast Survey. The monument was six feet high and 31 inches square at the base. The monument had an "East End of Pulgas Base" inscription. The monument originally stood at the point that is now the middle of Gonzaga Street, 150 feet north of its intersection with Notre Dame Street. Due to the disturbance from construction of the University Village subdivision, the monument was moved a short distance into Jack Farrell Park in 1951.

Archaeological Resources

The 2011 cultural resources assessment included an archaeological sensitivity map of the area. An updated assessment of archaeological resources and a sensitivity map was completed as a part of the 2022 cultural resources assessment.

As a part of the 2022 assessment, a prehistoric and historic site record and literature search of the Plan Area was completed by the CHRIS/NWIC (File No. 21-1898) to update results obtained in 2011 for the previous Specific Plan Area review. In addition, selected reference materials from previous studies and materials available at the Bancroft Library, University of California, Berkeley, were also utilized.

Based on the 2022 records search, there are 46 studies within or adjacent to the Specific Plan area with 11 additional studies within one quarter mile. Four recorded prehistoric archaeological resources are present either within or immediately adjacent to the Specific Plan area, and four potential (unrecorded) prehistoric resources are within or immediately adjacent to the Plan area.

Recorded Archaeological Sites

Four archaeological sites have been recorded within the Specific Plan area and/or within one quarter mile of the Specific Plan area. The first site [CA-SMA-77 (P-41-000080)] was exposed during construction and excavation activities in the early 1950s. Sixty burials and approximately 3,000 artifacts (including faunal and shell remains) were recovered. Although the resource is not listed on the CRHR, it is considered eligible under Criterion 1 for its importance to the Ohlone people due to the presence of Native American burials, and under criterion 4 for its potential to yield information in prehistory and history due to the potential presence of additional intact subsurface cultural deposits.

The second site [CA-SMA-235 (P-41-000233)] is located partly in the Specific Plan area and extends toward the west side of University Avenue. The site was tested in 1981. Surface indicators of a prehistoric site included horn snail shells, small amounts of Franciscan chert (used as tool stone), and thermally altered sandstone.

The third recorded site [CA-SMA-248 (P-41-000244)] is a prehistoric site recorded adjacent to the Specific Plan area. Dark friable soil (midden) has been observed at the site along with horn shell, oyster, mussel, fire-cracked rock, and chipped lithic (a large stem with chert flakes). This resource could be considered eligible for the CRHR under Criterion 4 since it has the potential to yield information important in prehistory due to the potential presence of intact subsurface cultural deposits.

The fourth recorded site [CA-SMA-375 (P-41-002143)], is a prehistoric archaeological site that was exposed during construction/excavation within the Specific Plan area. This site included two Native American burials, scattered pieces of horn shell, and one pestle. This resource could be eligible for the CRHR under Criterion 1 for its importance to the Ohlone people due to presence of Native American burials and Criterion 4 for its potential to yield information important in prehistory due to the potential presence of additional subsurface cultural deposits.

Potential Prehistoric Archaeological Sites

Four unrecorded potential prehistoric sites have been observed within the Specific Plan area. Three of the sites could represent redistributed prehistoric cultural material originally associated with resource CA-SMA-77 (P-41-000080) discussed above.

- **Sites 1 and 3:** Two areas of prehistoric cultural material were observed on the surface in 1982. The site consisted of possible indications of archaeological resources. The cultural materials included slight traces of fire-cracked rock, three shellfish, shells, mussel shells, and one chert flake. Archaeological testing in 1984 also found traces of shellfish. The findings were considered to be an extension of the recorded CA-SMA-77 discussed above.
- **Site 2:** Dark brown soil with several pieces of Cerithidea shell, fire-altered rock and a few pieces of faunal bone were identified and interpreted as a possible extension of CA-SMA-77 or a redeposit from another location.
- **Site 4:** Human remains were exposed during construction at this site at a depth of 1.5 feet below grade in dark yellow clay. The remains were incomplete having sustained significant earlier damage and loss to most of the elements. Additional remains were found within 50 feet of the burial but could not be conclusively identified. Four isolated groundstone artifacts were found during construction but could not be associated with any of the human remains. The remains were reburied by the Native American Most Likely Descendant in early 2015 within the project site.

Potential Historic-Era Archaeological Resources

Unrecorded historic-era archaeological remains (shell and brick rubble) have been observed within the Specific Plan area, although they have not been mapped. These have not been formally reported or recorded. Oyster, mussel, whelk, and a sea snail mixed with imported gravel and sand was observed on the east side of Tara Street near the hazardous material waste area in the early 2000s. The rare presence of whelks and sea snail, absence of Mud Flat Snail, and presence of gravel and sand suggested this deposit is likely historic and associated with the development of Tara Street.

A small amount of brick rubble was observed in five locations. The highly disturbed rubble at one of the locations may have been imported while the brick at the other locations could be associated with waste from a former brick factory or early 20th century farm structures.

Archaeological Sensitivity

Based on the above findings, the Specific Plan area has an overall moderate to very high level of cultural sensitivity to known and potential prehistoric and archaeological resources. The Specific Plan area and surrounding areas (within one-quarter mile of the Plan area) are highly sensitive for subsurface archaeological resources. The distribution of recorded prehistoric archaeological sites around CA-SMA-77 indicates a high potential that additional outlying prehistoric resources may be present in the Specific Plan area. This observation is based on several Native American burials identified, the presence of recorded sites, and several unrecorded resources. In addition, historic-era archaeological deposits have been exposed by on-going infrastructure installation and new development.

3.5.2 Impact Discussion

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

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

3.5.2.1 *Project Impacts*

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

The 2013 Specific Plan EIR concluded future development within the Plan area would have the potential to indirectly and directly impact known and unknown historic buildings and structures by

removing historic buildings and structures, or altering the setting for historic properties. The 2013 Specific Plan EIR required future developments to comply with the following policies:

- **2013 Specific Plan Policy CUL-1.1:** Ensure that City, State, and Federal historic preservation laws, regulations, and codes are implemented, including State laws related to archaeological resources, to ensure the adequate protection of historic and prehistoric resources.
- **2013 Specific Plan Policy CUL-1.2:** Require preparation of a project-specific Historic Architectural Resources Assessment (HARA) by a professional Architectural Historian for any buildings or structures that are over 45 years in age that could be affected by a project. The HARA will provide background context, identify any architectural resources including standing buildings and structures, and provide an evaluation using the criteria of the California Register of Historic Resources. Follow the HARA recommendations to avoid and minimize damage to these resources. These may include additional research, measured drawings and photographic recordation with deposition of any research materials with a historical society or repository.

The 2013 Specific Plan EIR concluded with future projects' implementation of the above policies, future development under the 2013 Specific Plan would have a less than significant impact on historic resources.

A project could have a significant impact on a historic resource if it would cause a substantial adverse change in the historic significance of that resource. A "substantial adverse change" is defined as the physical demolition, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired.

As discussed in Section 3.5.1.2 Existing Conditions, there is one identified historic resource (Hetch Hetchy BDPL Alignment) that is eligible for listing on the CRHR and the NRHP, there is a resource/structure listed on the City's historic resources inventory (Pulgas Base Monument/survey marker) within 300 feet of the Specific Plan area, which were also identified in the 2013 Specific Plan EIR, and several other potentially historic buildings/structures within and adjacent to the Specific Plan area.

Buildout of the proposed Specific Plan update (under both development scenarios, with the loop road or multi-use trail) would include demolition activities that have the potential to cause a substantial adverse change in the significance of a historical resource as defined by CEQA Guidelines Section 15064.5. The potential extent of the impact is due to the loss of structures and not the amount of development that occurs on the parcels where existing structures would be demolished, and so therefore, there are not meaningful differences in the level of impact between the 2013 Specific Plan and the Specific Plan Update Scenarios 1 and 2. The loop road or multi-use trail would not affect the significance of any structures within or adjacent to the Plan area, as the loop road or multi-use trail would not require demolition or alteration of any structures, nor would they introduce incompatible new construction adjacent to any historic structures.

Impact CUL-1: Future projects could indirectly or directly impact known and unknown historic buildings and structures by removing historic buildings and structures, or altering the setting for historic properties.

Proposed Cultural Resources Specific Plan Update Policies: The following proposed Specific Plan Update Policies (which are the same as the 2013 Specific Plan Policies CUL-1.1 and CUL-1.2, respectively) shall be implemented to reduce potential impacts to historic resources to less than significant levels.

Policy LU-7.1: Ensure that City, State, and Federal historic preservation laws, regulations, and codes are implemented, including State laws related to archaeological resources, to ensure the adequate protection of historic and prehistoric resources.

Policy LU-7.2: Require preparation of a project-specific Historic Architectural Resources Assessment (HARA) by a professional Architectural Historian for any buildings or structures that are over 45 years in age that could be affected by a project. The HARA will provide background context, identify any architectural resources including standing buildings and structures, and provide an evaluation using the criteria of the California Register of Historic Resources. Follow the HARA recommendations to avoid and minimize damage to these resources. These may include additional research, measured drawings and photographic recordation with deposition of any research materials with a historical society or repository.

Future projects under the Specific Plan Update will be required to implement Specific Plan Update Policies LU-7.1 and LU-7.2; these policies require future project applicants to retain a professional Architectural Historian to prepare, subject to City oversight as lead agency, a project-specific HARA for buildings or structures over 45 years in age and to follow the HARA recommendations to avoid and minimize damage to these resources, and General Plan Policy 9.2, which requires projects to protect buildings or sites of historic or cultural significance. With the implementation of these policies, future developments would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded the Plan area has an overall moderate to very high level of cultural sensitivity in regard to known and potential prehistoric and archaeological resources. The 2013 Specific Plan EIR required future projects to implement of Specific Plan Policy CUL-1.3 to reduce impacts to archaeological resources to less than significant.

- **Specific Plan Policy CUL-1.3:** Require preparation of a project-specific Archaeological Resources Assessment (ARA) by a professional Archaeologist for any construction that will impact native soil in the parts of the Plan Area known to be archaeologically sensitive, that are within the 200-foot buffer of known historic and prehistoric resources, as recorded on the supplemental figure Archaeological Sensitivity Zones on file with the City. The ARA will provide background context, identify any archaeological resources, and provide an evaluation using the criteria of the California Register of Historic Resources. ARA recommendations must be followed to avoid and minimize damage to these resources. These may include archeological testing, data recovery, and archaeological monitoring during construction.

The 2013 EIR concluded with future projects' compliance with 2013 Specific Plan Policy CUL-1.3 which requires the preparation of a project-specific Archaeological Resources Assessment (ARA) by a professional archaeologist for any construction that would impact native soil in an archaeologically sensitive area identified on the sensitivity map included within the 2022 Cultural Resources Assessment on file with the City, and implement the ARA recommendations on how to avoid or minimize impacts to buried resources, the Specific Plan buildout would result in a less than significant impact to archaeological resources.

As discussed in Section 3.5.1.2 Existing Conditions, there are four known archaeological resources and four potential (unrecorded) resources within the Specific Plan area. The Specific Plan area has a moderate to high potential for buried Native American and archaeological resources to occur. Approximately 90 percent of the Specific Plan area has a high sensitivity to prehistoric archaeological resources. In addition, historic cultural materials associated with both the early settlement and use of East Palo Alto could be present that could add to the further understanding of historic occupation.

Ground-disturbing construction activities have the highest potential to directly impact cultural resources within the Specific Plan area by disturbing both surface and subsurface soils which could result in the loss of integrity of cultural deposits and loss of information. Buildout of the Specific Plan update would include ground disturbing activities that have the potential to cause a substantial adverse change in the significance of an archaeological resource as defined by CEQA Guidelines Section 15064.5. The magnitude of the impacts to archaeological resources is due to ground disturbance and unrelated to the amount of development that occurs on the parcels within the Specific Plan area, and so therefore, there are not meaningful differences in the level of impact between the Specific Plan Update Scenarios #1 and #2. The construction of the loop road and multi-use path would not impact known archaeological resources. However, it is possible that unknown archaeological resources could be discovered during construction of the loop road and multi-use path. Future development under the Specific Plan Update, including development of the loop road and multi-use path, would implement the proposed Specific Plan Update Policies CUL-2.1 through CUL-2.8. These Specific Plan Update Policies are an update to the 2013 Specific Plan Policy CUL-1.3 as they are consistent with current standard practices for protecting archaeological resources and provide more detailed information regarding what cultural resource assessments (to be prepared

by future projects) would require, requirements pertaining to worker training and Native American monitoring, and monitoring and treatment plan report requirements.

Impact CUL-2: Future projects could discover unknown archaeological resources during construction. If Specific Plan Update Policies to protect these resources during construction are not implemented, future projects would have a significant impact on these resources.

Proposed Cultural Resources Specific Plan Update Policies: The following proposed Specific Plan Policies shall be implemented to reduce potential impacts to archaeological resources to less than significant levels.

Policy LU-7.3: Future project applicants shall engage a qualified archaeologist to complete a site-specific review and evaluation of a development site within the Specific Plan area as part of the discretionary permitting process in regard to archaeological resources. The identification, review, and evaluation shall be completed by qualified professional archaeologists. The results shall be presented in a Cultural Resources Assessment Report (CRAR) or similar document format that provides the results of the identification and evaluation effort with site specific mitigation recommendations. The CRAR shall be reviewed and approved by the City as part of the discretionary permitting process.

Policy LU-7.4: Future project applicants shall implement site-specific mitigation measures or recommendations presented in the CRAR as determined necessary by the City. Mitigation or recommendations could include:

- Completion of an archaeological testing program to determine the potential for the presence/absence of subsurface cultural deposits and develop further recommendations for cultural resource avoidance/preservation;
- Implementation of cultural resources monitoring during subsurface construction for project sites within or adjacent to a recorded cultural resource; and
- Recordation of any significant built environment resources including but not limited to systematic photographic recordation and architectural measured drawings as well as additional detailed archival research.

Policy LU-7.5: Future project applicants, in consultation with the City, shall contact the Native American Heritage Commission (NAHC) for environmental reviews during the development permitting process to determine if resources listed on the Sacred Lands File are within or adjacent to a project specific site. Outreach to members of the Native American community identified by the NAHC shall be undertaken to determine if they can provide information on tribal cultural resources within or adjacent to the project site.

- Policy LU-7.6:** Future project applicants shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources and tribal cultural resources including prehistoric Native American burials.
- Policy LU-7.7:** Future project applicants shall retain a Professional Archaeologist (PA) on an “on-call” basis during ground disturbing construction to review, identify, and evaluate cultural resources that may be inadvertently exposed during construction. The archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources or tribal cultural resources under CEQA.
- Policy LU-7.8:** Prior to ground disturbing activities, a PA shall complete in-person Worker Awareness Training (WAT) for cultural resources. Training shall be required for all construction personnel participating in ground disturbing construction to alert them to the cultural sensitivity of the project site and provide protocols to follow in the event of a discovery of archaeological materials. The Principal Archaeologist or Project Archaeologist shall develop and distribute an “ALERT SHEET” summarizing potential finds that could be exposed and the protocols to be followed as well as points of contact to alert in the event of a discovery.
- Policy LU-7.9:** If the PA determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource or tribal cultural resource under CEQA, the PA shall notify the project proponent and Community Development Director, or their designee, of the evaluation. The PA shall recommend mitigation measures to mitigate to a less than significant impact in accordance with California Public Resources Code Section 15064.5. Tribal cultural resources shall be evaluated with the assistance of Native American tribes and/or individual tribal members who have previously been contacted and responded to outreach efforts made by the project proponent. Mitigation measures may include, but would not be limited to, avoidance, preservation in-place, recordation, additional archaeological testing, and data recovery. The completion of a formal Archaeological Monitoring Plan (AMP) and/or Archaeological Treatment Plan (ATP) that may include data recovery may be recommended by the PA if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the AMP and ATP and treatment of significant cultural resources and/or tribal cultural resources shall be completed by the project applicant in consultation with any regulatory agencies and Native American tribes and tribal individuals.

Policy LU-7.10: The project applicant shall submit a Monitoring Closure Report to the City at the conclusion of ground disturbing construction if archaeological and Native American monitoring was undertaken.

With implementation of the proposed Specific Plan Update Policies LU-7.3 through MM LU-7.10, which require the preparation of a CRAR and archaeological monitoring, and General Plan Policies 9.1 and 9.7, which require projects to protect areas of important archaeological resources and to stop work when archaeological resources are discovered during construction, the future development under the Specific Plan update (under both development scenarios with and without the loop road) would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded it is possible that implementation of the Specific Plan would directly or indirectly disturb human remains, including those interred outside of dedicated cemeteries. The EIR concluded future projects under the 2013 Specific Plan would be required to implement the following 2013 Specific Plan Policy CUL-1.4:

- **2013 Specific Plan CUL-1.4:** Recognize that Native American human remains may be encountered at unexpected locations and impose a requirement on all development permits and tentative subdivision maps that upon their discovery during construction, development activity will cease until professional archaeological examination confirms that the burial is human. If the remains are determined to be Native American, applicable State laws shall be implemented. A professional Archaeologist with expertise in human remains must be retained to review, identify, and evaluate the discovery. The County Coroner and Native American Heritage Commission must be notified and the remains treated in accordance with State law.

The 2013 Specific Plan EIR concluded with the implementation of 2013 Specific Plan CUL-1.4, future projects under the 2013 Specific Plan would result in a less than significant impact to human remains.

As discussed in Section 3.5.1.2 Existing Conditions, since Native American burials have been recovered within the Specific Plan area, there is potential for human remains to be disturbed during ground disturbing and construction activities. Future development under the Specific Plan Update (under both development scenarios with the loop road or multi-use path) would implement the following mitigation measure to reduce the impacts to human remains to less than significant. The proposed Specific Plan Update Policy CUL-3.1 will replace 2013 Specific Plan Policy CUL-1.4 to be consistent with the current standards of reducing impacts to human remains.

Impact CUL-3: Future projects could discover unknown human remains during construction. If Specific Plan Update Policies to protect these resources during construction are not implemented, future projects would have a significant impact on these resources.

Proposed Cultural Resources Specific Plan Update Policy:

Future projects shall implement the following Specific Plan Update policy during construction to reduce impacts to humans remains to less than significant.

Policy LU-7.11: In the event that human remains are discovered during excavation and/or grading of the site, all activity within a 50-foot radius of the find will be stopped. The San Mateo County Coroner will be notified and shall make a determination as to whether the remains are of Native American origin or whether an investigation into the cause of death is required. If the remains are determined to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC) immediately. Once the NAHC identifies the most likely descendants, the descendants will make recommendations regarding proper burial, which will be implemented in accordance with Section 15064.5(e) of the CEQA Guidelines.

With the implementation of the proposed Specific Plan Update Policy LU-7.11, future projects under the Specific Plan Update (Scenarios 1 and 2, including the multi-use path and the loop road) would result in less than significant impacts to human remains.

(Less than Significant Impact)

3.5.2.2 Cumulative Impacts

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

The geographic area for cumulative cultural resources is the Specific Plan area and adjacent areas, as it is assumed development in the same area would affect similar resources.

Historic Resources

As discussed in 3.5.1.2 Existing Conditions, there are known historic resources within and adjacent to the Specific Plan area. The adjacent cumulative projects to the Specific Plan area are the 760 Weeks Street Townhomes project, which is 30 feet south, and the 2340 Avenue Residential project, which is 170 feet south, of the Specific Plan area (refer to Table 3.0-1). There are no known historic resources adjacent to these projects and Specific Plan area and, therefore, future projects under the Specific Plan Update and the above cumulative projects would not result in significant

cumulative impacts. All future development in the City of East Palo Alto including development within the Specific Plan area, would comply with existing regulations, including General Plan Policy 9.2, and development within the Specific Plan area would follow Specific Plan Update Policies LU-7.1 and LU-7.2, to reduce impacts to historic resources. Under CEQA, future development is required to evaluate its cumulative impacts to historic resources. The cumulative historic analysis would consider the impacts of other projects in the area to the same or common historic resources and identify mitigation, such as the measures identified in Specific Plan Update Policies LU-7.1 and LU-7.2, to reduce impacts to a less than significant level. **(Less than Significant Cumulative Impact)**

Archaeological Resources and Human Remains

As discussed in 3.5.1.2 Existing Conditions, the Specific Plan area has a moderate to very high level of cultural sensitivity within and adjacent to the Specific Plan area. Future development, including within and adjacent to the Specific Plan area (including those discussed above), would comply with proposed Specific Plan Update Policies LU-7.3 through LU-7.10, LU-7.11, and General Plan Policies 9.1 and 9.7, which would identify measures to protect archaeological resources and human remains if discovered. For these reasons, the cumulative projects would not result in significant cumulative impacts to archaeological resources or human remains.

(Less than Significant Cumulative Impact)

3.6 Energy

The following discussion is based, in part, on the CalEEMOD (used to compute annual air pollutant emissions, greenhouse gas (GHG) emissions, and energy output) results in Attachment 1 of the Air Quality/GHG Assessment prepared by Illingworth & Rodkin, Inc. on July 1, 2024 . The Air Quality/GHG Assessment (including the energy output results in Attachment 1) is included as Appendix B of this Draft SEIR.

3.6.1 Environmental Setting

3.6.1.1 *Regulatory Framework*

Federal and State

Energy Star and Fuel Efficiency

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

Renewables Portfolio Standard Program

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

Executive Order B-55-18 To Achieve Carbon Neutrality

In September 2018, Governor Brown issued an executive order, EO-B-55-18 To Achieve Carbon Neutrality, setting a statewide goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." The executive order requires CARB to "ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal." EO-B-55-18 supplements EO S-3-05 by requiring not only emissions reductions, but also that, by no later than 2045, the remaining emissions be offset by equivalent net removals of 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.²² Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.²³

California Green Building Standards Code

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

Advanced Clean Cars Program

CARB adopted the Advanced Clean Cars program in 2012 in coordination with the EPA and National Highway Traffic Safety Administration. The program combines the control of smog-causing pollutants and GHG emissions into a single coordinated set of requirements for vehicle model years 2015 through 2025. The program promotes development of environmentally superior passenger cars and other vehicles, as well as saving the consumer money through fuel savings.²⁴

²² California Building Standards Commission. “California Building Standards Code.” Accessed May 13, 2022. <https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo>.

²³ California Energy Commission (CEC). “2019 Building Energy Efficiency Standards.” Accessed May 13, 2022. <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2019-building-energy-efficiency>.

²⁴ California Air Resources Board. “The Advanced Clean Cars Program.” Accessed May 13, 2022. <https://www.arb.ca.gov/msprog/acc/acc.htm>.

Regional and Local

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating energy use impacts resulting from planned development within the City, including the following:

Policy	Description
<i>Parks, Open Space, and Conservation</i>	
7.1	Citywide building energy efficiency. Promote and encourage citywide building energy efficiency through strategies that may include the following: <ul style="list-style-type: none">• Retrofits of buildings with energy-efficient technology High energy performance in new buildings, in excess of CALGreen when possible.
7.4	Renewable energy. Encourage the use of renewable energy in the City, including solar and wind in new and existing development.
8.11	Green building certification. Require that new residential, commercial, or mixed-use buildings over 20,000 square feet earn LEED Silver certification (or equivalent) including meeting the minimum CALGreen code requirements.

City of East Palo Alto Climate Action Plan

In September 2023, the City adopted the 2030 Climate Action Plan and Adaptation Strategies. The City’s 2030 CAP includes guidelines for reaching the stated goal of reducing carbon in per capita emissions 55 percent below 2005 levels by 2030 with the eventual goal of reducing carbon emissions by 100 percent - to reach carbon neutrality by 2045. The 2030 CAP accounted for growth assumed under the Plan Bay Area 2040 for the county (which did not incorporate the 2013 Adopted Specific Plan). The 2030 Climate Action Plan includes objectives and measures related to energy use in buildings, transportation and land use, waste, and municipal operations.

City of East Palo Alto Building Electrification and Electric Vehicle Infrastructure Reach Codes Ordinance

City Council adopted the City of East Palo Alto Building Electrification and Electric Vehicle Infrastructure Reach Codes Ordinance on October 20, 2020. The ordinance includes requirements for electrification, solar, and EV infrastructure on all new residential and commercial buildings and other non-residential buildings within the City. As of June 2024, the City adopted an updated Reach Code in response to recent case law. The revised Reach Code will require California Energy Commission approval, which is expected in early Fall 2024. The proposed update would allow a mixed-fuel approach, which includes natural gas appliances but would still incentivize electrification of new construction.

3.6.1.2 Existing Conditions

Total energy usage in California was approximately 6,956.6 trillion British thermal units (Btu) in the year 2020, the most recent year for which this data was available.²⁵ 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 21.8 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.²⁶ This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

Electricity

In 2022, California produced approximately 80 percent of the electricity it consumed and the rest was imported from outside the state, including from Mexico.²⁷ California's non-carbon dioxide emitting electric generation (from large hydroelectric, solar, wind, and other renewable sources) accounted for more than 50 percent of total in-state generation for 2022.²⁸ Electricity from natural gas-powered plants makes up 42 percent of the state electricity generation and the remaining eight percent of the state's electricity generation is from nuclear power.

California's total system electric generation in 2021 was approximately 197,165,106 megawatt-hours (MWh), which was down three percent from 2020's total generation of approximately 201,784,204 MWh.²⁹ In 2022 nonhydroelectric renewables represented the largest portion of the state's electricity sources (at 42 percent). Natural gas generation accounted for more than 42 percent of all electricity generation.³⁰

Electricity in San Mateo County in 2022 was consumed primarily by the non-residential sector (60 percent), with the residential sector consuming 40 percent. In 2020, a total of approximately 4,117 GWh of electricity was consumed in San Mateo County.³¹

Peninsula Clean Energy (PCE) is a public and locally controlled electricity provider for the County of San Mateo. Electricity provided by PCE is delivered through PG&E transmission lines. Commercial and residential customers in San Mateo County are included in the PCE service area and can choose to have 50 to 100 percent of their electricity supplied from carbon-free and renewable sources.

²⁵ United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed July 5, 2022. <https://www.eia.gov/state/?sid=CA#tabs-2>.

²⁶ United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed July 29, 2022. <https://www.eia.gov/state/?sid=CA#tabs-2>.

²⁷ U.S. Energy Information Administration. *California State Energy Profile*. Accessed May 27, 2024. <https://www.eia.gov/state/print.php?sid=CA>

²⁸ Ibid.

²⁹ U.S. Energy Information Administration. *California State Energy Profile*. Accessed May 27, 2024. <https://www.eia.gov/state/print.php?sid=CA>.

³⁰ Ibid.

³¹ California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County." Accessed May 27, 2024. <http://ecdms.energy.ca.gov/electbycounty.aspx>.

Customers are automatically enrolled in the ECOplus plan, which generates its electricity from 100 percent carbon-free sources, with at least 50 percent from renewable sources. Customers have the option to enroll in the ECO100 plan, which generates its electricity from 100 percent carbon-free, renewable sources.^{32,33}

Natural Gas

PG&E provides natural gas services within the City of East Palo Alto. In 2022, California used approximately 2.1 trillion Btu of natural gas. In 2023, California's natural gas supply came from a combination of in-state production and imported supplies from other western states and Canada.³⁴ In 2022, San Mateo County used approximately two percent of the state's total consumption of natural gas.³⁵

Fuel for Motor Vehicles

In 2023, California produced 112 million barrels of crude oil and in 2020, 11.7 billion gallons of gasoline were sold in California.^{36, 37} The average fuel economy for light-duty vehicles (autos, pickups, vans, and sport utility vehicles) in the United States has steadily increased from about 13.1 miles per gallon (mpg) in the mid-1970s to 26.0 mpg in 2022.³⁸ Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That standard, which originally mandated a national fuel economy standard of 35 miles per gallon by the year 2020, was updated in April 2022 to require all cars and light duty trucks achieve an overall industry average fuel economy of 49 mpg by model year 2026.^{39,40}

³² Peninsula Clean Energy. "Frequently Asked Questions."

Accessed May 27, 2024. <https://www.peninsulacleanenergy.com/faq/>.

³³ Peninsula Clean Energy. "Energy Choices." Accessed July 29, 2022. <https://www.peninsulacleanenergy.com/faq/>.

³⁴ California Gas and Electric Utilities. 2023 *California Gas Report*. Accessed May 27, 2024.

https://www.socalgas.com/sites/default/files/Joint_Biennial_California_Gas_Report_2023_Supplement.pdf

³⁵ California Energy Commission. "Natural Gas Consumption by County." Accessed May 27, 2024.

<http://ecdms.energy.ca.gov/gasbycounty.aspx>.

³⁶ U.S. Energy Information Administration. "Petroleum & Other Liquids, California Field Production of Crude Oil." February 28, 2023. <https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=p&s=mcrfpca1&f=a>

³⁷ California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons." Accessed May 27, 2024. <https://www.cdtfa.ca.gov/dataportal/dataset.htm?url=VehicleTaxableFuelDist>.

³⁸ United States Environmental Protection Agency. "The 2023 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." December 2023.

<https://www.epa.gov/system/files/documents/2023-12/420r23033.pdf>

³⁹ United States Department of Energy. *Energy Independence & Security Act of 2007*. Accessed May 27, 2024.

<http://www.afdc.energy.gov/laws/eisa>.

⁴⁰ United States Department of Transportation. USDOT Announces New Vehicle Fuel Economy Standards for Model Year 2024-2026." Accessed May 27, 2024. <https://www.nhtsa.gov/press-releases/usdot-announces-new-vehicle-fuel-economy-standards-model-year-2024-2026>

3.6.2 Impact Discussion

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

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

3.6.2.1 *Project Impacts*

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

The 2013 Specific Plan EIR did not include an analysis of energy impacts. However, the 2013 EIR stated the 2013 Specific Plan would include construction of new buildings that would be compliant with new State Building code. Based on the modeling completed for GHG emissions, energy efficiency was assumed to be at least 15 percent greater than existing conditions. The 2013 Specific Plan EIR noted that future developments would be required to comply with the City's Climate Action Plan and Specific Plan LU-4.6 requiring projects to reduce energy to comply with green building standards.

- **2013 Specific Plan Policy LU-4.6:** Verify that Green Building standards are part of every development project application, and that these standards would reduce energy-related GHG emissions beyond 15 percent from those that would occur under the most recent Title 24 Building Code requirements (Tier 1 standards).

Construction

Construction associated with future development under the proposed Specific Plan (under either scenario) would result in the temporary usage and consumption of electricity to power electric construction equipment, mobile offices, or water delivered to construction sites; gasoline and diesel fuel used for transportation of workers and haul trucks to and from construction sites; and fuel used for operation of off-road equipment. Construction-related energy usage and consumption would be dispersed over the course of the build out period, and would vary based on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel. Since the timing and intensity of the construction activity required for future development projects under the proposed plan is not yet known, energy consumption during construction of future development cannot be quantified.

For any project, the overall construction schedule and process is designed to be efficient in order to avoid excess monetary costs. That is, equipment and fuel would not be used wastefully on the project site because of the added expense associated with renting the equipment, maintaining it, and fueling it. Further, the Specific Plan area is located in an urbanized area in proximity to roadways, construction supplies, and workers, making it more efficient than construction occurring in outlying, undeveloped areas. Therefore, energy consumption by construction of future development (under either scenario) would not be wasteful, inefficient, or unnecessary.

(Less than Significant Impact)

Operation

Buildout of the proposed plan (under either scenario) would increase residential, office, R&D, industrial, civic, and amenity development within the Specific Plan area. Once constructed, gasoline would be consumed during vehicle trips by future residents and employees, which is anticipated to be primarily light-duty vehicles. Electricity would be consumed by future development in order to power buildings. The, natural gas could be used for appliances, heating, and plumbing in future developments; therefore, natural gas use was assumed in the model (CalEEMod). . The estimated annual consumption of electricity, natural gas, and gasoline assuming full build out of the Specific Plan Update (Scenarios 1 and 2) is shown in Table 3.6-1 Table.

Table 3.6-1: Estimated Annual Energy Use Under Ravenswood Specific Plan Update			
Land Use (Quantity)	Electricity Use (kWh)	Natural Gas Use (kBtu)	Gasoline (gal./yr.)¹
Scenario 1			
General Office (1,802,950 sq. ft. ²)	21,707,500	34,526,500	432,745
Government Civic Center/Community ³ (75,800 sq. ft.)	912,632	1,451,570	36,543
Government/Civic Office ³ (58,790 sq. ft.)	707,832	1,125,830	19,914
Civic/Community/Library (11,600 sq. ft.) ³	86,188	285,012	16,596
Research & Development (988,400 sq. ft.)	7,343,810	24,285,000	252,990
General Heavy Industry (263,510 sq. ft.) ⁴	1,957,880	6,474,440	78,570

Table 3.6-1: Estimated Annual Energy Use Under Ravenswood Specific Plan Update			
Land Use (Quantity)	Electricity Use (kWh)	Natural Gas Use (kBtu)	Gasoline (gal./yr.)¹
Fast Food Restaurant (no drive through) (18,100 sq. ft.)	519,289	3,032,110	143,330
High Turnover Sitdown Restaurant (12,590 sq. ft.)	361,207	2,109,080	20,175
Retail/Regional Shopping Center (73,060 sq. ft.)	873,798	333,154	112,912
Retail/Quality Restaurant (8,650 sq. ft.)	248,168	1,449,050	10,444
Apartments Mid Rise (1,270)	4,935,690	10,722,600	154,870
Single Family Housing (80)	624,842	3,087,290	21,079
Scenario 1 Total Energy Usage ³	40,278,836	88,881,636	1,300,168
Scenario 2			
General Office (2,135,100 sq. ft.) ²	25,706,600	40,887,200	512,468
Government Civic Center/ Community ³ (75,800 sq. ft.)	912,632	1,451,570	36,543
Government/Civic Office ³ (58,790 sq. ft.)	707,832	1,125,830	19,914
Civic/Community/Library ³ (11,600 sq. ft.)	86,188	285,012	16,596
Research & Development (1,167,250 sq. ft.)	8,672,670	28,679,300	298,768
General Heavy Industry (333,510 sq. ft.) ⁴	2,477,980	8,194,340	88,399
Fast Food Restaurant (no drive through)	519,289	3,032,110	143,330

Table 3.6-1: Estimated Annual Energy Use Under Ravenswood Specific Plan Update			
Land Use (Quantity)	Electricity Use (kWh)	Natural Gas Use (kBtu)	Gasoline (gal./yr.)¹
(18,100 sq. ft.)			
Retail/High Turnover Sitdown Restaurant (12,590 sq. ft.)	361,207	2,109,080	20,175
Retail/Quality Restaurant (8,650 sq. ft.)	248,168	1,449,050	10,444
Retail/Regional Shopping Center (73,060 sq. ft.)	748,134	333,154	112,912
Apartments Mid Rise (1,520)	5,907,280	12,833,400	185,356
Single Family Housing (80)	624,842	3,087,290	21,079
Scenario 2 Total Energy Usage⁵	46,972,822	103,467,336	1,482,580

Source: Illingworth & Rodkin, Inc. California Emissions Estimator Model, 2020. *Ravenswood/4 Corners TOD Specific Plan Update*. July 1, 2024.

Notes:
Sq. ft. = square feet

¹ Gal./yr. = gallons per year. Gasoline use calculated based on estimated annual VMT of existing uses in CalEEMod divided by average U.S. fuel economy. Per the Energy Independence and Security Act, the mandated U.S. Fuel Economy would be 49 mpg for light-duty vehicles at the time of full build out of the Specific Plan (2040).

² Scenario 1 would add 1,802,950 square feet of office space and Scenario 2 would add 2,135,100 square feet of office space. Consistent with the Appendix E, Traffic Analysis of this Draft SEIR, 32,650 square feet of office was subtracted from the office development allowed under both scenarios given the Ravenswood Health Center (assumed in the 2013 Specific Plan) has been constructed and is in operation.

³ Scenarios 1 and 2 would add 129,700 square feet civic/community space (which accounts for the 25,000 square foot EPACenter that was constructed and is in operation under the 2013 Specific Plan), as shown in Table 2.3-1 and Appendix E, Traffic Analysis of this Draft SEIR. The CalEEMod inputs from the Appendix B, Air Quality/GHG Assessment included 146,190 square feet of civic/community space for both scenarios. The energy results for civic/community uses in this table are conservative.

⁴ Scenario 1 would add 250,000 square feet and Scenario 2 would add 300,000 square feet of industrial space. The CalEEMod inputs from the Appendix B, Air Quality/GHG Assessment included 263,510 square feet of industrial space for Scenario 1 and 333,510 square feet of industrial space for Scenario 2. The energy results for the industrial space in this table are conservative.

⁵ Reported energy usage assumes maximum build out of the Specific Plan through the year 2040.

As shown in Table 3.6-1, the energy usage for Scenario 2 would be greater than Scenario 1, as Scenario 2 represents about 15 percent more overall development. As infill development is subject to the current building codes, the Specific Plan Update would not result in the wasteful, inefficient, or unnecessary consumption of natural gas. In comparison with electricity consumption at the state (197,165 GWh) and county (4,117 GWh) level, electricity consumption by the maximum amount of future development under the Specific Plan Update (46.9 GWh) would be less than 1/1000th and 2/100^{ths} of a percent of state and county consumption, respectively. Additionally, future development would be constructed in accordance with Part 6 and Part 11 of Title 24, which would reduce the demand for energy resources by incorporating sustainability features that would promote energy efficiency and increase reliance on renewable energy sources. In addition, future projects would be required to implement a TDM Plan that results in a 40 percent reduction in trips and fuel consumption, which was accounted for in the energy modeling results presented in Table 3.6-1. Therefore, the implementation of the Specific Plan Update (for Scenarios 1 and 2) would not result in wasteful, inefficient, or unnecessary consumption or wasteful use of energy resources.

(Less than Significant Impact)

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

State and local renewable energy and energy efficiency plans that are applicable to the Specific Plan Update are discussed in Section 3.6.1.1. Future development under either scenario would be subject to the energy efficiency standards set forth in Title 24. In addition, all customers in East Palo Alto are automatically enrolled in the Peninsula Clean Energy ECOplus plan, which provides customers with electricity that is generated from 50 percent renewable sources and 100 percent carbon-free sources. As of June 2024, the City adopted an updated Reach Code, which will become effective after CEC approval. The revised Reach Code encourages future developments to include rooftop solar panels, which would result in the generation of renewable energy by future development under the Specific Plan Update. Future developments would be required to meet current Building Energy Efficiency Standards (California Energy Code) including battery storage system requirements for newly constructed buildings that require a solar photovoltaic system. For these reasons, the Specific Plan Update (Scenarios 1 and 2) would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

(Less than Significant Impact)

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

Electricity

Efficiency and production capabilities would help meet increased electricity demand in the future, such as improving energy efficiency in existing and future buildings, establishing energy efficiency targets, inclusion of microgrids and zero-net energy buildings, and integrating renewable technologies.⁴¹ Future development under the Specific Plan would construct and operate energy efficient buildings in accordance with existing regulations (including Title 24 and CALGreen).

Electricity supply and demand data and reporting is provided at the state level. The Specific Plan Update would result in 64,312,400 kwh of electricity demand for Scenario 1 and 75,572,498 kwh of electricity demand for Scenario 2, and would not constitute a significant impact in the state's annual use. As discussed under Impact EN-1, buildout of the Specific Plan would not result in wasteful, inefficient, or unnecessary consumption of energy. Given these reasons, the project's increase in electricity usage is not considered to have a substantial effect on the state's supply.

(Less than Significant Impact)

Natural Gas

As shown in Table 3.6-1, the Specific Plan Update would result in an annual natural gas demand of 6,590,240 kBtu for Scenarios 1 and 2. This estimate assumes that all restaurant uses would use natural gas. Compared to the growth trends in natural gas supply and the existing available supply in the state, the Specific Plan Update would not result in a significant increase in natural gas demand relative to projected supply. Also, as discussed under Impact EN-1, the buildout of the Specific Plan Update would not result in wasteful, inefficient, or unnecessary consumption of energy. **(Less than Significant Impact)**

Fuel for Motor Vehicles

The Specific Plan Update would result in a fuel consumption of approximately 1.3 million gallons per year for Scenario 1 and 1.5 million gallons per year for Scenario 2. This increase is not a substantial increase in the context of gasoline supply and demand for the State of California. New automobiles purchased by occupants of future development under the Specific Plan Update would be subject to fuel economy and efficiency standards applied throughout the State of California, which means that over time the fuel efficiency of vehicles associated within the Specific Plan area would improve. In addition, as discussed under Impact TRN-1, the Specific Plan would include a shuttle service with bus stops throughout the Specific Plan area and a multi-use path that would provide pedestrian/bicycle access to the Plan area to reduce vehicle usage. For these reasons, the Specific Plan Update would not result in a significant increase in gasoline demand relative to projected

⁴¹ Ibid.

supply. Also refer to the discussion under Impact EN-1 which details why buildout of the Specific Plan Update would not result in wasteful, inefficient, or unnecessary consumption of energy.

(Less than Significant Impact)

3.6.2.2 *Cumulative Impacts*

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

The geographic area for cumulative energy impacts is the State of California, since the extent of the project's impact on electricity, natural gas, and gasoline resources is limited to the extent where the State has jurisdiction to manage energy resources. The discussion of the Specific Plan Update's individual impacts on energy resources provided under Section 3.6.2.2, Impact EN-1 reflects the project's cumulative impacts as well, since the Specific Plan Update's consumption of electricity, natural gas, and gasoline was assessed in comparison with consumption at the state and county level. The discussion under Impact EN-2 also reflects cumulative impacts, since the Specific Plan Update was evaluated for consistency with both state and local renewable energy and energy efficiency plans, and found to have a less than significant impact. Impact EN-3 reflects the Specific Plan Update's cumulative impacts because the Specific Plan Update's increase in energy demand was evaluated at a state- and county-wide level. For these reasons, the proposed plan would not result in a cumulatively considerable contribution to a significant cumulative energy impact.

(Less than Significant Cumulative Impact)

3.7 Geology and Soils

3.7.1 Environmental Setting

3.7.1.1 *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 the 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 all 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

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating geology and soils impacts resulting from planned development within the City, including the following:

Policy	Description
<i>Safety and Noise</i>	
1.1	Construction Requirements. Apply the proper development engineering and building construction requirements to avoid or mitigate risks from seismic and geologic hazards.
1.2	Robust Seismic Guidance. Utilize and enforce the most recent State guidance for seismic and geologic hazards when evaluating development proposals.
1.3	Licensed Geologist. Require that a State licensed engineering geologist prepare and/or review development proposals involving grading, unstable soils, and other hazardous conditions. Incorporate recommendations of the geologist into design plans, potentially including building modifications and open space easements.

City of East Palo Alto Municipal Code

Title 15 (Building and Construction) of the City of East Palo Alto Municipal Code includes the currently adopted Building Code as well as requirements in Chapter 15.48 for excavation, grading, filling, and clearing. In accordance with the Municipal Code, procedures for the issuance, administration, and enforcement of a building and grading permits are employed in order to protect health and safety, which includes the reduction or elimination of the hazards of undue settlement, erosion, siltation, and flooding, or other special conditions.

3.7.1.2 Existing Conditions

Geology and Soils

The Specific Plan area is located in the Coast Ranges geomorphic province of California. The Coast Ranges are dominated by a series of northwest-trending ridges and valleys that have been formed by faulting and folding of the earth's crust. The Specific Plan area is situated on an alluvial fan on the western shore of San Francisco Bay. The topography is generally flat with a slight slope downward toward the San Francisco Bay to the east.

Soils underlying the Specific Plan area include Holocene-age Bay Mud and artificial fill in the northwestern and eastern corners of the Specific Plan and flood plain deposits and natural Holocene-age levee deposits to in the western portion of the Specific Plan area. The Bay Mud is composed of unconsolidated silty clay basin deposits. The flood plain deposits typically comprise dense sandy to silty clay with lenses of coarser silt and sand and the levee deposits generally consist of loose sandy or clayey silt that is permeable in nature.⁴²

Seismicity

The San Francisco Bay Area is considered to be one of the most seismically active regions in the United States. The nearest active faults to the project site include the Monte-Vista Shannon (6.3 miles southwest of the site), San Andreas (eight miles west of the site), and Hayward (approximately 10.9 miles east of the site). The Specific Plan area is not located within a state designated Alquist Priolo Earthquake Fault Zone and no known faults cross the site.⁴³ The Specific Plan area could, however, experience strong ground shaking during a moderate to severe earthquake.

Groundwater

Groundwater at the project site fluctuates due to many factors including seasonal fluctuations and underground drainage patterns. Historical groundwater levels vary from 0 to 10 feet below ground surface in the Specific Plan area. Groundwater levels can be influenced by tidal changes, precipitation changes, perched zones, changes in drainage patterns, and irrigation. For some site areas, particularly within the Bay Mud areas, the groundwater may be brackish due to the proximity of San Francisco Bay.

Liquefaction and Lateral Spreading

Liquefaction is the result of seismic activity and is characterized as the transformation of loose water-saturated soils from a solid state to a liquid state during ground shaking. During ground shaking, such as during earthquakes, cyclically induced stresses may cause increased pore water

⁴² United States Department of Agriculture, Natural Resources Conservation Services. "Web Soil Survey." Accessed February 7, 2023. <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>

⁴³ State of California Seismic Hazard Zones. Palo Alto Quadrangle. October 18, 2006. Available at: http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/PALO_ALTO_EZRIM.pdf

pressures within soil voids, resulting in liquefaction. Liquefied soils may lose shear strength that may lead to large shear deformations and/or flow failure under moderate to high shear stresses, such as beneath foundations or sloping ground. Soils most susceptible to liquefaction are loose, non-cohesive soils that are saturated and are bedded with poor drainage, such as sand and silt layers bedded with a cohesive cap. The Specific Plan area is entirely located within a State-designated liquefaction hazard zone.⁴⁴

Paleontological Resources

Paleontological resources are the fossilized remains or organisms from prehistoric environments from in geologic strata. These are valued for the information they yield about the history of the earth and its past ecological settings. Due to their age, the Holocene-age Bay Muds beneath the Specific Plan area may contain fossils.

3.7.2 Impact Discussion

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

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

⁴⁴ California State Geoportal. CGS Seismic Hazards Program: Liquefaction Zones. Last Updated February 11, 2022. https://gis.data.ca.gov/datasets/b70a766a60ad4c0688babdd47497dbad_0/explore?location=37.477248%2C-122.120041%2C14.17

For each geologic issue discussed below, the magnitude of the geologic impact is tied to the physical conditions on parcels and is unrelated to the amount of development that occurs on the parcels within the Plan, and so therefore, there are not meaningful differences in the level of geologic impact between the 2013 Specific Plan and the Specific Plan Update Scenarios 1 and 2.

3.7.2.1 *Project Impacts*

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

Ground Surface Rupture

The 2013 Specific Plan EIR concluded that impacts associated with buildout of the Specific Plan would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault because there are no known active faults within the Specific Plan area. Future development allowed under the Specific Plan Update (under both development scenarios, with or without the loop road) would occur within the boundaries of the 2013 Specific Plan area. Therefore, consistent with the 2013 Specific Plan, the proposed Specific Plan Update (under both development scenarios) would not expose people or structures to potential substantial adverse effects associated with ground surface rupture because the no active faults are located within the Specific Plan area. **(Less than Significant Impact)**

Seismicity

The 2013 Specific Plan EIR concluded that although the Specific Plan area is located within a seismically active region, implementation of Mitigation Measure MM GEO-1 would reduce impacts to people and structures to a less than significant level.

2013 Specific Plan EIR Mitigation Measure:

MM GEO-1: All structures shall be designed using sound engineering judgment and the latest California Building Code (CBC) requirements as a minimum. Seismic design provisions of current building codes generally prescribe minimum lateral forces, applied statically to the structure, combined with the gravity forces of dead and live loads. The code-prescribed lateral forces are generally substantially smaller than the expected peak forces that would be associated with a major earthquake. Therefore, structures shall be able to do all of the following:

- Resist minor earthquakes without damage.
- Resist moderate earthquakes without structural damage but with some nonstructural damage.
- Resist major earthquakes without collapse but with some structural as well as nonstructural damage.

Future development allowed under the proposed Specific Plan Update (under both development scenarios) would occur within the same area as the 2013 Specific Plan EIR, with the exception of the University Village neighborhood and Cooley Landing Park which are no longer considered a part of the Specific Plan area. As stated in Section 3.7.1, the Specific Plan area is within a seismically active region and is in a liquefaction hazard zone.

Impact GEO-1: Future projects under the Specific Plan Update could directly or indirectly cause substantial adverse effects related to strong seismic ground shaking and seismic-related ground failure.

Mitigation Measure: Future projects shall implement the above Mitigation Measure MM GEO-1 to reduce seismic-related impacts to less than significant.

Additionally, future development allowed under the Specific Plan Update (under both development scenarios) would be required to be designed in compliance with a site-specific Geotechnical Investigation and CBC requirements, consistent with General Plan Safety and Noise Element Policies 1.1, 1.2, and 1.3 and Chapter 15.48 of the Municipal Code. The loop road and multi-use path would be subject to the same requirements and mitigations, as applicable, as will be required of the Specific Plan Update's future residential, office/R&D, industrial, retail, civic/community, and tenant amenity uses. For this reason, development allowed under the Specific Plan Update (under both development scenarios) would result in the same less than significant seismicity impact with mitigation incorporated as previously identified in the 2013 Specific Plan EIR.

(Less than Significant Impact with Mitigation Incorporated)

Liquefaction

The 2013 Specific Plan EIR concluded that although the Specific Plan area has high susceptibility for liquefaction during earthquakes due to the presence of unconsolidated alluvium and artificial fill in a zone of shallow groundwater, implementation of Mitigation Measure MM GEO-2 would reduce impacts to a less than significant level.

2013 Specific Plan EIR Mitigation Measure:

MM GEO-2: Foundations shall be designed to compensate for effects of liquefaction, differential settlement, and lateral spreading due to earthquakes. Foundations shall be designed by a qualified structural engineer using soil design parameters developed by qualified geotechnical consultants and verified by the City's Services Division.

Future development allowed under the Specific Plan Update (under both development scenarios, with and without the loop road) would occur within the boundaries of the 2013 Specific Plan area. As discussed in Section 3.7.1.2 Existing Conditions, the Specific Plan area is located in a liquefaction hazard zone, which can pose a risk to the integrity of structures at the site. In accordance with the California Building Code, future Specific Plan Update development would be required to prepare site-specific geotechnical investigation reports to evaluate seismic and geologic conditions and implement identified recommendations in those reports to avoid/minimize risk due to seismic and seismic-related hazards (including liquefaction) to acceptable levels. The loop road and multi-use path would be subject to the same requirements and mitigations, as applicable, as will be required of the Specific Plan Update's future residential, office/R&D, industrial, retail, civic/community, and tenant amenity uses. Therefore, implementation of the Specific Plan Update would not cause substantial adverse effects associated with liquefaction.

Impact GEO-2: Future projects under the Specific Plan Update could directly or indirectly cause substantial adverse effects related to liquefaction.

Mitigation Measure: Future projects shall implement the above Mitigation Measure MM GEO-2 to reduce impacts related to liquefaction to less than significant.

In addition, future projects adjacent to the shoreline would comply with the following Specific Update Plan Policies and requirements to reduce impacts related to geotechnical hazards including liquefaction:

Specific Plan Update Shoreline-Adjacent Development Requirements

- **Standard 9.7.6:** Shallow Groundwater Vulnerability Assessment and Mitigation. Shoreline-adjacent development projects shall perform a geotechnical assessment of the project's vulnerability to shallow groundwater rise and submit a list of project measures that will monitor and mitigate seasonal and permanent emergent groundwater impacts, including:

buoyancy, seepage, infiltration, liquefaction, corrosion, and contaminant mobilization hazards.

For this reason, with the implementation of 2013 Specific Plan EIR Mitigation Measure MM GEO-2, Specific Plan Update requirements, and the CBC, development allowed under the Specific Plan Update (under both development scenarios, with and without the loop road), would result in the same less than significant liquefaction impact with mitigation incorporated as previously identified in the 2013 Specific Plan EIR. **(Less than Significant Impact with Mitigation Incorporated)**

Landslides and Lateral Spreading

The 2013 Specific Plan EIR concluded the Specific Plan area is not adjacent to any areas of significant topography and that landslides in the Specific Plan area are not likely. There have been no changes the topography of the Specific Plan area; therefore, landslide impacts on future development under the Specific Plan Update would be less than significant. The 2013 Specific Plan EIR concluded the Specific Plan area is adjacent to the Bay and there would be a moderate to high chance of lateral spreading as sediment moves downslope during an earthquake. Areas most susceptible to lateral spreading would be areas closest to the San Francisco Bay. Future development adjacent to the San Francisco Bay could result in a significant impact related to lateral spreading. The 2013 Specific Plan EIR concluded that this impact would be reduced to a less than significant level with implementation of Mitigation Measure MM GEO-3.

2013 Specific Plan EIR Mitigation Measure:

MM GEO-3: Implement Mitigation Measure GEO-1 above. In addition, site development plans and foundations shall be designed to compensate for effects of lateral spreading due to earthquakes. Earthwork activities, including remedial grading, shall be performed using the recommendations provided by qualified geotechnical consultants, and foundations shall be designed by a qualified structural engineers using soil design parameters developed by qualified geotechnical consultants and verified by the City's Building Services Division.

As stated above, areas most susceptible to lateral spreading would be areas closest to the San Francisco Bay. Future development, under the Specific Plan Update, adjacent to the San Francisco Bay could result in a significant impact related to lateral spreading.

Impact GEO-3: Future development adjacent to the San Francisco Bay could result in a significant impact related to lateral spreading.

Mitigation Measure: Future projects shall implement the above Mitigation Measure MM GEO-3 to reduce impacts related to lateral spreading to less than significant.

Consistent with the conclusions of the 2013 Specific Plan EIR, with the implementation of Mitigation Measure MM GEO-3, future development allowed under the Specific Plan Update (under both

development scenarios, including the multi-use path with and without the loop road) would result in less than significant lateral spreading impacts as previously identified in the 2013 Specific Plan EIR.

(Less than Significant Impact with Mitigation Incorporated)

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

The 2013 Specific Plan EIR concluded that soils in the Specific Plan area range from mud to coarser levee deposits and the finer deposits of sands and silts are easily eroded by wind and water, but that the effects of soil erosion would be reduced by the area's topography. The 2013 Specific Plan EIR also concluded that unless the Specific Plan area is vegetated, soil could erode and expose foundations, resulting in a significant impact. The 2013 EIR also concluded that with the implementation of the Specific Plan Policy LU-4.5, which requires landscaping and ground cover to be included in all projects to prevent substantial soil erosion, future development under the 2013 Specific Plan would result in less than significant erosion impacts during future projects' operations. The 2013 Specific Plan EIR also concluded that future project components and measures to prevent soil erosion during construction would be implemented, resulting in a less than significant erosion impact during construction.

The Specific Plan area consists of the native soils identified in the 2013 Specific EIR and, therefore, future development under the Specific Plan Update would result in similar impacts. Future development allowed under the proposed Specific Plan Update (under both development scenarios) would occur within the same area as the 2013 Specific Plan EIR, with the exception of the University Village neighborhood which is no longer considered a part of the Specific Plan area. Future projects under the Specific Plan Update would be required to implement the following proposed Specific Plan Policy POS-1.11 to reduce the impacts from soil erosion to less than significant.

Proposed Specific Plan Update Policy

- **Policy POS-1.11:** Require that projects provide a minimum percentage of landscaping coverage as a component of all projects to prevent soil erosion. Require that projects do not exceed a maximum percentage of paving coverage in order to maintain minimum permeability for drainage.

The loop road and multi-use path would be subject to the same requirements, as applicable, and Policy POS-1.11 as required of the Specific Plan Update's future residential, office/R&D, industrial, retail, civic/community, and tenant amenity uses. For this reason, development allowed under the Specific Plan Update (under both development scenarios, with and without the loop road) would result in the same less than significant soil erosion impacts as previously identified in the 2013 Specific Plan EIR.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded that development allowed under the 2013 Specific Plan could occur in areas underlain by artificial fill and Bay Mud deposits which are highly compressible and subject to vertical movement, resulting in significant impacts; however, implementation of MM GEO-4, would reduce this impact to a less than significant level.

2013 Specific Plan EIR Mitigation Measure:

MM GEO-4: Improvements on areas of soft Bay Mud and artificial fill must be designed under the guidance of suitably qualified geotechnical consultants to ensure that the underlying substrate is capable of withstanding the load. Existing fills may need to be removed and replaced with engineered fills.

Future development allowed under the Specific Plan Update (under both development scenarios, with or without the loop road) would occur within the same area as the 2013 Specific Plan EIR, with the exception of the University Village neighborhood and Cooley Landing Park which are no longer considered a part of the Specific Plan area. Similar to the above conclusions, future development allowed under the Specific Plan Update could occur in areas underlain by artificial fill and Bay Mud deposits which are highly compressible and subject to vertical movement.

Impact GEO-4: Future development on existing Bay Mud deposits and fills could result in significant vertical movement and differential settlement.

Mitigation Measure: Future projects shall implement the above Mitigation Measure MM GEO-4 to reduce impacts related to compressible soil and differential settlement to less than significant.

Additionally, as discussed in Impact GEO 1 above, consistent with CBC requirements, General Plan Safety and Noise Element Policies 1.1, 1.2, and 1.3 and Chapter 15.48 of the Municipal Code (see Section 3.7.1 of this SEIR), completion of and compliance with a site-specific Geotechnical Investigation would be required for all future development allowed under the Specific Plan update (under both development scenarios, including the multi-use path with and without the loop road) to address unstable soil conditions. For this reason, development allowed under the Specific Plan Update (under both development scenarios) would result in the same less than significant liquefaction impact with mitigation incorporated as previously identified in the 2013 Specific Plan EIR.

(Less than Significant Impact with Mitigation Incorporated)

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

The 2013 Specific Plan EIR concluded that soils in the Specific Plan area are mostly clay-rich and expansive potentially resulting in heaving and cracking of building foundations; however, this would be reduced to a less than significant level through implementation of Mitigation Measure MM GEO-5 which requires earthwork and foundations be designed by a qualified geotechnical consultant to compensate for the effects of expansive soils.

2013 Specific Plan EIR Mitigation Measure:

MM GEO-5: Earthwork and foundations shall be designed to compensate for effects of expansive soils. Fill placement and foundation design criteria shall be developed by qualified geotechnical consultants and verified by the City's Building Services Division.

As discussed under Impacts GEO 1 and GEO-3 above, consistent with CBC requirements, General Plan Safety and Noise Element Policies 1.1, 1.2, and 1.3 and Chapter 15.48 of the Municipal Code, completion of and compliance with a site-specific Geotechnical Investigation would be required for all future development allowed under the Specific Plan Update (under both development scenarios, including the multi-use path, with and without the loop road) to address unstable soil conditions including expansive soils.

Impact GEO-5: Future development on the existing expansive soils could result in resulting in heaving and cracking of building foundations.

Mitigation Measure: Future projects shall implement the above Mitigation Measure MM GEO-5 to reduce impacts for future development on expansive soils to less than significant.

For this reason, future development allowed under the Specific Plan Update would result in the same less than significant liquefaction impact with mitigation incorporated as previously identified in the 2013 Specific Plan EIR.

(Less than Significant Impact with Mitigation Incorporated)

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

The 2013 Specific Plan EIR concluded that buildout of the 2013 Specific Plan would not result in significant impacts associated with soils incapable of adequately supporting the use of a septic tank or alternative wastewater disposal system because the plan area is relatively flat and underlain by

mostly clayey soils which support the use of septic tanks and alternative wastewater disposal systems.

The Specific Plan area has similar soil conditions as the 2013 soils. Therefore, consistent with the 2013 Specific Plan EIR conclusions, the Specific Plan Update (under both development scenarios, with and without the loop road and including the multi-use path) would not result in significant impacts associated with soils incapable of adequately supporting the use of a septic tank or alternative wastewater disposal system.

(Less than Significant Impact)

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

Paleontological resources impacts from buildout of the 2013 Specific Plan were analyzed in the 2013 Specific Plan EIR under Cultural Resources. The 2013 Specific Plan EIR concluded that natural deposits within the Specific Plan area could be fossil-bearing and development allowed under the Specific Plan could result in destruction of unique paleontological deposits; however, this impact would be reduced to a less than significant level with implementation of Mitigation Measure MM CULT-1.

2013 Specific Plan Mitigation Measure:

MM CULT-1: If paleontological resources are encountered during grading or excavation, all construction activities within 50 feet shall stop and the City shall be notified. A qualified paleontologist shall inspect the findings within 24 hours of discovery. If it is determined that the proposed development could damage unique paleontological resources, mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines. Possible mitigation under Public Resources Code Section 21083.2 requires that reasonable efforts be made for resources to be preserved in place or left undisturbed. If preservation in place is not feasible, project applicants shall pay in-lieu fees to mitigate significant effects. Excavation as mitigation shall be limited to those parts of resources that would be damaged or destroyed by a project. Possible mitigation under CEQA emphasizes preservation-in-place measures, including planning construction avoid paleontological sites, incorporating sites into parks and other open spaces, covering sites with stable soil, and deeding the site into a permanent conservation easement. Under CEQA Guidelines, when preservation in place is not feasible, data recovery through excavation shall be conducted with a data recovery plan in place. Therefore, when considering these possible mitigations, the City shall have a preference for preservation in place.

Future development allowed under the Specific Plan Update (under both development scenarios, with or without the loop road) would occur within the same area as the 2013 Specific Plan EIR, with the exception of the University Village neighborhood and Cooley Landing Park which are no longer considered a part of the Specific Plan area. Additionally, consistent with the 2013 Specific Plan EIR, future development allowed under the proposed Specific Plan Update (under both development scenarios) would be subject to Mitigation Measure MM CULT-1 (which is MM GEO-6 in this Draft EIR).

Impact GEO-6: Future projects could encounter paleontological resources during construction, resulting in the destruction of these resources.

Mitigation Measure: Future projects shall implement Mitigation Measure MM GEO-6 (which is the same as MM CULT-1 above) to reduce impacts to paleontological resources to less than significant.

MM GEO-6: If paleontological resources are encountered during grading or excavation, all construction activities within 50 feet shall stop and the City shall be notified. A qualified paleontologist shall inspect the findings within 24 hours of discovery. If it is determined that the proposed development could damage unique paleontological resources, mitigation shall be implemented in accordance with Public Resources Code Section 21083.2 and Section 15126.4 of the CEQA Guidelines. Possible mitigation under Public Resources Code Section 21083.2 requires that reasonable efforts be made for resources to be preserved in place or left undisturbed. If preservation in place is not feasible, project applicants shall pay in-lieu fees to mitigate significant effects. Excavation as mitigation shall be limited to those parts of resources that would be damaged or destroyed by a project. Possible mitigation under CEQA emphasizes preservation-in-place measures, including planning construction avoid paleontological sites, incorporating sites into parks and other open spaces, covering sites with stable soil, and deeding the site into a permanent conservation easement. Under CEQA Guidelines, when preservation in place is not feasible, data recovery through excavation shall be conducted with a data recovery plan in place. Therefore, when considering these possible mitigations, the City shall have a preference for preservation in place.

For the above reasons, development allowed under the proposed Specific Plan Update (under both development scenarios, and including the loop road and multi-use path) would result in the same less than significant liquefaction impact with mitigation incorporated as previously identified in the 2013 Specific Plan EIR.

(Less than Significant Impact with Mitigation Incorporated)

3.7.2.2 *Cumulative Impacts*

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

The geographic area for cumulative geology and soils impacts is the Specific Plan area and adjacent parcels with pending and approved projects. The 2013 Specific Plan EIR found that buildout of the Specific Plan would not result in cumulative geology and soils impacts because impacts from plan development and cumulative projects elsewhere in the city would be mitigated to a less than significant levels with implementation of measures similar to those required for the Specific Plan.

As discussed under Impact GEO-1 through GEO-6, the proposed Specific Plan Update (under both development scenarios) would be subject to 2013 Specific Plan Mitigation Measures MM GEO-1 through MM GEO-5 and MM CULT-1 which would reduce impacts associated with buildout of the Specific Plan Update to a less than significant level. Furthermore, future development elsewhere in East Palo Alto, would be subject to similar measures which would reduce project-specific impacts to a less than significant level. Therefore, the Specific Plan Update (under both development scenarios, including the multi-use path, with and without the loop road) combined with future projects adjacent to the Specific Plan area, would not result in significant cumulative impacts

(Less than Significant Cumulative Impact with Mitigation Incorporated)

3.8 Greenhouse Gas Emissions

The following discussion is based, in part, on an Air Quality/Greenhouse Gas Assessment prepared for the project by Illingworth & Rodkin, Inc. in May 21, 2024. The Air Quality/Greenhouse Gas Assessment is included as Appendix B of this Draft SEIR.

3.8.1 Environmental Setting

3.8.1.1 *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.

3.8.1.2 Regulatory Framework

State

Assembly Bill 32 and State 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. The first Scoping Plan was approved by CARB in 2008 and must be updated at least every five years. Since 2008, there have been two updates to the Scoping Plan.

In 2016, SB 32 was signed into law, amending the California Global Warming Solution Act. SB 32, and accompanying Executive Order B-30-15, require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of CO₂e (MMTCO₂e). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 MMTCO₂e.

2022 Scoping Plan

On December 15, 2022, CARB approved the 2022 Scoping Plan. The 2022 Scoping Plan provides a sector-by-sector guide on how to reduce man-made (i.e., anthropogenic) GHG emissions by 85 percent below 1990 levels and achieve carbon neutrality by 2045 over a 25-year horizon.⁴⁵ The primary focus of the 2022 Scoping Plan is to reduce the usage of fossil fuels by electricizing the transportation sector, procuring electricity from renewable resources, phasing out natural gas in land use developments, and building transit-oriented communities that encourage multi-modal transportation. If implemented successfully, the 2022 Scoping Plan would not only reduce GHG emissions but also reduce smog-forming air pollution (NO_x) by 71 percent and reduce fossil fuel demand by 94 percent. The 2022 Scoping Plan also details natural carbon capture and storage process along with mechanical carbon capture programs to address the remaining 15 of anthropogenic GHG emissions that will remain post-2045. To meet these goals, CARB also includes a revised goal of reducing state GHG emissions 48 percent below 1990 levels by 2030.

Senate Bill 375 and Plan Bay Area 2050

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 Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

⁴⁵ CARB. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Page 5.

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 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.⁴⁶

Plan Bay Area 2050 includes a goal to increase the number of households that live within 0.5 mile of frequent transit by 2050. Plan Bay Area 2050 promotes strategies that support active and shared modes, combined with a transit-supportive land use patterns, which together are forecasted to lower the share of Bay Area residents that drive to work alone from 50 percent in 2015 to 33 percent in 2050, resulting in a decrease in GHG emissions. Plan Bay Area 2050 also includes goals to expand TDM initiatives that support and augment employers’ commute programs, providing a path to emissions reductions.

SB 100

SB 100, known as the 100 Percent Clean Energy Act of 2018, was adopted on September 10, 2018. The overall goal is by year 2045, all retail electricity sold in California is procured from 100 percent renewable and zero-carbon resources. SB 100 also modified the renewables portfolio standard to 50 percent by 2025 and 60 percent by 2030.

Executive Order B-55-18 and Assembly Bill 1279

Executive Order B-55-18 was issued in September 2018. It ordered a new statewide goal of achieving carbon neutrality no later than 2045 and to maintain net negative emissions thereafter.

Assembly Bill 1279, also known as the California Climate Crisis Act, was approved on September 16, 2022 codifying the statewide goal set by Executive Order B-55-18 of achieving net zero GHG emissions no later than the year 2045 and maintaining net negative emissions thereafter. In addition, this bill has a statewide goal of reducing anthropogenic GHG emissions by 85 percent below the 1990 levels by the year 2045. The bill requires CARB to work with relevant state agencies to ensure that updates to the scoping plan identify and recommend measures to achieve these policy goals and strategies that enable CO₂ removal solutions and carbon capture, utilization, and

⁴⁶ Association of Bay Area Governments and Metropolitan Transportation Commission. Plan Bay Area 2050. October 21, 2021. Page 20.

storage technologies in California are implemented. The bill requires CARB to submit an annual report.

Advanced Clean Cars II Regulation

To continue reducing air pollutants and GHG emissions in the transportation sector, CARB adopted the Advanced Clean Cars II Regulations (Resolution 22-12) on August 25, 2022. The new regulation requires that by 2035 all new passenger cars, trucks, and SUVs sold in California will be zero emissions. This regulation bans the sale of new gasoline or diesel passenger cars, trucks, and SUVs in California from automakers. Beginning in 2026, 35 percent of new vehicle sales must be either zero-emission vehicles or plug-in hybrid electric vehicles. By 2030, 70 percent of new vehicle sales will be zero-emissions vehicles and by the 2035 model year 100 percent of new vehicle sales will be zero-emissions. CARB will limit the use of plug-in hybrid electric vehicles in the percentage requirements to keep the manufacturing of zero-emissions as the primary goal. Existing gasoline cars can continue to be driven and sold as used cars beyond 2035. CARB is required to track and report on the zero-emissions vehicle market development annually.

California Building Standards Code – Title 24 Part 11 and Part 6

The CALGreen Code is part of the California Building Standards Code under Title 24, Part 11.⁴⁷ The CALGreen Code encourages sustainable construction standards that incorporate planning/design, energy efficiency, water efficiency resource efficiency, and environmental quality. These green building standard codes are mandatory statewide and are applicable to residential and non-residential developments. The most recent CALGreen Code (2022 CALGreen Code) was effective as of January 1, 2023.

The California Building Energy Efficiency Standards (California Energy Code) is under Title 24, Part 6 and is overseen by the CEC. This code includes design requirements to conserve energy in new residential and non-residential developments. This Energy Code is enforced and verified by cities during the planning and building permit process. The 2022 Energy Code replaced the 2019 Energy Code as of January 1, 2023. There are new 2022 standards for single-family residences, multi-family residences, and non-residential uses.^{48,49,50} Major changes include electric-ready single-family and multi-family residence and solar photovoltaic systems and energy storage systems for residential and commercial developments.

⁴⁷ California Building Standards Commission. California Building Standards Code: 2022 Triennial Edition of Title 24, Part 6. Accessed May 24, 2023. <https://www.dgs.ca.gov/BSC/Codes>.

⁴⁸ California Energy Commission. "2022 Building Energy Efficiency Standards What's New for Single-Family Residential." Revised July 15, 2022. Accessed May 24, 2023. https://www.energy.ca.gov/sites/default/files/2022-08/2022_Single-family_Whats_New_Summary_ADA.pdf.

⁴⁹ California Energy Commission. "2022 Building Energy Efficiency Standards What's New for Multifamily." Revised August 4, 2022. Accessed May 24, 2023. https://www.energy.ca.gov/sites/default/files/2022-08/2022_Multifamily_Whats_new_Summary_ADA.pdf.

⁵⁰ California Energy Commission. "2022 Building Energy Efficiency Standards What's New for Nonresidential." Revised August 4, 2022. Accessed May 24, 2023. https://www.energy.ca.gov/sites/default/files/2022-08/2022_Nonresidential_Whats_New_Summary_ADA.pdf.

Requirements for electric vehicle (EV) charging infrastructure are set forth in Title 24 of the California Code of Regulations and are regularly updated on a three-year cycle. The CALGreen standards consist of a set of mandatory standards required for new development, as well as two more voluntary standards known as Tier 1 and Tier 2. The 2022 CALGreen standards require deployment of additional EV chargers in various building types, including multi-family residential, hotel, and non-residential land uses. They include requirements for both EV capable parking spaces and the installation of EV supply equipment for multi-family residential and nonresidential buildings. The 2022 CALGreen standards also include requirements for both EV readiness and the actual installation of EV chargers. The 2022 CALGreen standards include both mandatory requirements and more aggressive voluntary Tier 1 and Tier 2 provisions:

- CALGreen Tier 1 standards require multi-family developments and hotels with less than 20 units to have 35 percent of the total number of parking spaces EV ready; if there are more than 20 units, 10 percent of the parking spaces must be provided with EV supply equipment. These standards also require 30 percent of total parking spaces to be EV capable and 33 percent of parking spaces to be EV capable with EV supply equipment for non-residential and non-hotel uses.
- CALGreen Tier 2 standards require multi-family developments and hotels with less than 20 units to have 40 percent of the total number of parking spaces EV ready; if there are more than 20 units, 15 percent of the parking spaces must be provided with EV supply equipment. For non-residential and non-hotel uses, 45 percent of total parking spaces require EV capable spaces and 33 percent of parking spaces require EV capable spaces provided with EV supply equipment.

CALGreen also requires new construction and demolition projects to have a diversion of at least 65 percent of the construction waste generated. CALGreen also allows a disposal reduction option that can be met when the project's disposal rate is 2.0 pounds per square foot or less for non-residential and high-rise residential construction or 3.4 pounds per square foot or less for low-rise residential construction.

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.

BAAQMD CEQA Thresholds for Evaluating Climate Impacts from Land Use Projects and Plans

On April 20, 2022, the BAAQMD Board of Directors adopted the Justification Report: CEQA Thresholds for Evaluating the Significance of Climate Impacts from Land Use Projects and Plans. The report includes BAAQMD’s thresholds of significance for use in determining whether a proposed project or plan will have a significant impact on climate change and provides the substantial evidence to support these thresholds. The April 2022 GHG thresholds replace the GHG thresholds set forth in the May 2017 BAAQMD CEQA Air Quality Guidelines and represent what is required of new land use development projects and plans to achieve California’s long-term climate goal of carbon neutrality by 2045.

Local

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating GHG impacts resulting from planned development within the City, including the following:

Policy	Description
<i>Infrastructure, Services, and Facilities</i>	
4.4	Construction waste. Encourage all construction projects to divert 80 percent of their construction waste away from landfills, exceeding CALGreen requirements.
<i>Parks, Open Space, and Conservation</i>	
7.1	Promote and encourage citywide building energy efficiency through strategies that may include the following: <ul style="list-style-type: none"> • Retrofits of buildings with energy-efficient technology • High-energy performance in new buildings, in excess of CALGreen when possible • Part 6 of the California Building Code (California Energy Code)
7.4	Encourage the use of renewable energy in the City, including solar and wind in new and existing development.
8.1	Climate Action Plan. Implement and regularly update the City’s Climate Action Plan (CAP). Update the City’s Greenhouse Gas Inventory and associated implementation actions matrix every 2 to 3 years, and the overall CAP framework document every 5 to 10 years.
8.4	Reducing GHG emissions. In consulting with applicants and designing new facilities, prioritize the selection of green building design features that enhance the reduction of GHG emissions.

- 8.11 **Green building certifications.** Require that new residential, commercial, or mixed-use buildings over 20,000 square feet earn LEED Silver certification (or equivalent) including meeting the minimum CALGreen code requirements.
- 8.12 **Green waste management practices.** Support ongoing green waste recycling efforts and facilitate composting opportunities for residents and businesses in order to reduce surface ozone pollution and offset greenhouse gas emissions and provide soil nutrients.

Land Use and Urban Design

- 1.1 Create a balanced land use pattern to support a jobs-housing balance, minimize traffic and vehicle miles traveled, reduce greenhouse gas emissions, and promote a broad range of housing choices, retail businesses, employment opportunities, cultural venues, educational institutions and other supportive land uses.
-

City of East Palo Alto Climate Action Plan

In September 2023, the City adopted the 2030 Climate Action Plan and Adaptation Strategies. The City's 2030 CAP includes guidelines for reaching the stated goal of reducing carbon in per capita emissions 55 percent below 2005 levels by 2030 and reducing carbon emissions by 100 percent - to reach carbon neutrality - by 2045. The 2030 CAP accounted for growth assumed in East Palo Alto under the Plan Bay Area 2040 (which did not include the 2013 Adopted Specific Plan). However, the 2030 CAP is not a qualified GHG reduction strategy pursuant to the BAAQMD CEQA Guidelines and CEQA Guidelines Section 15183.5(b).

City of East Palo Alto Reach Code

On March 21, 2023, the City of East Palo Alto adopted the Building Electrification and Electric Vehicle Infrastructure Reach Codes Ordinance (01-2023). This Ordinance (01-2023) amends Municipal Code Chapter 15 of Title 15 (Buildings and Construction) to include reach codes that apply to California Energy Code and Green Building Code. In October 2020, City Council first approved the Reach Codes ordinance that mandates electrification and electric charging infrastructure for all new construction projects, with some exceptions such as restaurants, emergency operation centers, and physical constraints. The East Palo Alto Reach Codes focuses on new residential, commercial, and multifamily buildings seeking building permits after January 1, 2021. The ordinance did not apply to additions or alterations. On March 21, 2023 City Council approved the 2023 Edition of the Reach Codes for the 2023 Building Code cycle. This renews Reach Codes for the new Building Code while reducing some of the initial exemptions provided. Given a recent binding legal authority, the City has had to amend its 2023 Edition of the Reach Codes. In June 2024, the City adopted an ordinance that includes amendments to the Reach Code. The revised ordinance requires California Energy Commission approval, although such approval is expected. The revised Reach Code takes a mixed-fuel approach, which allows for natural gas, mandating stricter building energy efficiency in new construction. It also contains a prescriptive pathway toward electrification and requirements for electric readiness if natural gas is employed in new construction projects.

New developments are also required to comply with the building energy efficiency mandatory measures for solar photovoltaic systems pursuant with the reach codes. Additionally, all residential and non-residential developments must comply with the CALGreen mandatory measures for EV charging.

City of East Palo Alto Building Electrification and Electric Vehicle Infrastructure Reach Codes Ordinance

The City Council adopted the City of East Palo Alto Building Electrification and Electric Vehicle Infrastructure Reach Codes Ordinance on October 20, 2020, which as noted above, was later revised in 2023. As of June 2024, the City amended the 2023 ordinance which will become effective pending California Energy Commission approval. It differs from the 2023 Reach Code as noted above, including the allowance of natural gas while mandating stricter building energy efficiency. The revised ordinance would still contain requirements for electrification readiness (although electrification remains prescribed), solar, and EV infrastructure on all new residential and commercial buildings and other non-residential buildings within the City.

3.8.1.3 *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 in the Specific Plan area generate GHG emissions as a result of energy consumption, vehicle trips to and from the Specific Plan area, solid waste generation, and water usage. It is estimated that the existing uses generate approximately 14,730 metric tons of CO_{2e} (MTCO_{2e}) annually. The Specific Plan area is located within a PDA according to the Bay Area's sustainable community strategy, Plan Bay Area 2050, which is an area intended for intensification of jobs and housing.

3.8.2 Impact Discussion

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

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

3.8.2.1 *Project Impacts*

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

The 2013 Specific Plan EIR concluded that GHG emissions associated with development allowed under the Specific Plan would be less than significant because future development would be required to comply with applicable Specific Plan and CAP measures to reduce GHG emissions, and they were previously analyzed in the CAP and found to be less than significant.

Construction

Construction GHG emissions estimates are not included as part of this analysis due to the speculative nature and lack of a BAAQMD or industry-standard model for calculating emissions on a program-level basis. In addition, neither the City nor BAAQMD have an adopted threshold of significance for construction related GHG emissions. BAAQMD encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable, including using electric equipment such as aerial lifts, air compressors, cement mortar mixers, concrete/industrial saws, cranes, and welders, and recycling or reusing at least 65 percent of construction waste or demolition materials. The two Specific Plan Update scenarios each represent roughly twice as much development overall as the development included in the 2013 Specific Plan, and so they would ultimately, if implemented, result in roughly twice the overall construction-related GHG emissions as the 2013 Specific Plan development would. The larger Scenario 2, which involves about 15 percent more development overall than Scenario 1, is expected to result in the largest GHG emissions from construction, which would occur over a 15-20 year period as the Plan is implemented. Future development under the Specific Plan update under either scenario, and with the loop road or multi-use trail, would comply with mitigation measure MM AIR-2.1, presented above in Section 3.3 Air Quality, to restrict idling of construction equipment and utilize energy-efficient equipment and comply with CALGreen and the City's construction and demolition waste diversion regulations to recycle or reuse at least 65 percent of the future projects' nonhazardous waste. For these reasons, future projects would result in less than significant construction GHG emissions.

(Less than Significant Impact)

Operation

It is estimated the Specific Plan Update would be built out and fully occupied by 2040 (under both development scenarios with the loop road or multi-use trail). Long-term operational GHG emissions from the buildout of the Specific Plan Update would result from area emissions (i.e., emissions from architectural coatings), energy consumption, mobile emissions from vehicles traveling to and from the Specific Plan area, and emissions from solid waste generation and water usage. Operational GHG emissions for the Specific Plan buildout were estimated using CalEEMod. The Specific Plan land use types and size and other project-specific information were inputted into the model to estimate

operational GHG emissions for the Specific Plan Update buildout. Refer to Appendix B for more details about the model inputs. GHG emissions from existing land uses at the Specific Plan area and operational GHG emissions from Specific Plan buildout are shown in Table 3.8-2

Table 3.8-1 Annual Specific Plan Update GHG Emissions in Metric Tons					
Source Category	Adopted 2013 Specific Plan 2040	Proposed Ravenswood Specific Plan Update Scenario #1 2040 (with and without the loop road)		Proposed Ravenswood Specific Plan Update Scenario #2 2040 (with and without the loop road)	
	Loop Road	Loop Road	No Loop Road	Loop Road	No Loop Road
Area	10	17		20	
Energy Consumption	2,601	4,771		5,554	
Mobile ¹	22,485	56,427	56,908	63,844	64,270
Solid Waste Generation	1,219	1,862		2,125	
Water Usage	264	613		723	
Total (MT CO_{2e}/year)	26,580	63,690	64,171	72,267	72,693
Source: Illingworth & Rodkin. Ravenswood/4 Corners TOD Specific Plan Update Air Quality and Greenhouse Gas Assessment, East Palo Alto, California. July 1, 2024					

As shown in Table 3.8-1, the annual emissions (compared to existing conditions) resulting from operation at buildout of the proposed Specific Plan Update in 2040 would range from 63,690 MT CO_{2e} under Scenario #1 with the loop road to 72,693 MT CO_{2e} under Scenario #2 without the loop road.

Model Assumptions

Mobile emissions are currently modeled to make up about 90 percent of Specific Plan-generated emissions in 2040. The remaining 10 percent of GHG emissions would be generated by water usage, energy, architectural coatings, and solid waste. The modeling for mobile emissions was based on use of EMFAC2021 which does not include California’s latest Advanced Clean Cars and Advanced Clean Trucks regulations. These regulations along with future fuel standards would reduce mobile emissions substantially. Additionally, new rules and regulations are likely to be adopted in the future, prior to 2040, that would reduce mobile emissions.

Future water conservation efforts for outdoor water usage, and new measures to reduce solid waste (reducing emissions from hauling of solid waste and reuse of methane generated) would reduce GHG, including carbon, emissions generated by water usage and solid wastes.

Plan-Level Impact

Per BAAQMD, for long-range land use plans (such as the proposed Specific Plan update) to have a less than significant GHG impact, the plan would need to:

- Meet the state’s goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045, or
- Be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b).

The City’s 2023 Climate Action Plan and Adaptation Strategies do not meet the criteria for a local GHG reduction strategy under CEQA Guidelines Section 15183.5(b). As discussed above and shown in Table 3.8-2, buildout of the Specific Plan Update is predicted to add up to 63,690 MT CO₂e for Scenario #1 and 72,693 MT CO₂e for Scenario #2 through the addition of new residences, office, industrial/R&D, civic/community, and retail land uses. There is no current pathway for the Specific Plan Update, based on the mechanisms currently available to the City to achieve carbon neutrality by 2045.

Impact GHG-1: The greenhouse gas emissions from future development under the Specific Plan Update are predicted to annually add up to 63,690 MT CO₂e for Scenario #1 and 72,693 MT CO₂e for Scenario #2 through the addition of new residences, office, industrial/R&D, civic/community, and retail land uses. There is no current pathway for the Specific Plan Update, based on the mechanisms currently available to the City, to achieve carbon neutrality by 2045.

As identified in Section 3.3 Air Quality, the Specific Plan Update includes Specific Plan Update standards (8-4.1 in the Specific Plan Update) that require future development to implement a TDM Plan to reduce daily vehicle trips by 40 percent (which, in turn, reduces mobile GHG emissions). The 40 percent trip reduction is accounted for in the emissions reported in Table 3.8-2. In addition, future development projects shall comply with EV system requirements in the most recently adopted version of CALGreen Tier 2 requirements (consistent with BAAQMD’s project-level GHG thresholds). Achieving carbon neutrality will rely on multiple factors including future state regulations (including the future statewide CARB Scoping Plans) and technologies, and changes to human behavior.

Moreover, since achieving carbon neutrality is not within the ability of the City in its role of regulating land use, and would require state regulations and technological solutions that are not yet known or available, it is conservatively concluded that the buildout of the Specific Plan update will result in a significant and unavoidable GHG impact.

(Significant and Unavoidable Impact)

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

The 2013 Specific Plan EIR concluded that applicable CAP measures were included by reference in the Specific Plan and therefore, implementation of the Specific Plan would not conflict with the City's CAP. The 2013 Specific Plan EIR concluded no impact.

Assembly Bill 1279

AB 1279 codifies the updated statewide GHG goal of achieving net zero GHG emissions by year 2045. As discussed under Impact GHG-1, achieving carbon neutrality by 2045 is not within the City's current capability in its role regulating land use and will require state regulations and technological solutions that are not yet known or available and, therefore, it was conservatively concluded that the Specific Plan Update, despite its inclusion of Specific Plan Update standards to reduce carbon emissions, does not (currently) have a path towards achieving carbon neutrality by 2045.

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 PDAs. Future projects under the Specific Plan Update would be located in the Ravenswood PDA. The Specific Plan Update would include high-density residential and mixed-use neighborhoods in the Specific Plan area. In addition, future projects would be required to implement TDM Plans to reduce vehicle trips by 40 percent (refer to Section 3.3 Air Quality). Therefore, the Specific Plan Update is consistent with the goals of Plan Bay Area 2050.

CARB Climate Change Scoping Plan

The CARB Scoping Plan provides a framework for state government to lower GHG emissions statewide in order to reach GHG reduction goals. Local governments play a role in these statewide efforts by enforcing the California Building Code and CALGreen Building Code on individual development projects. The future development allowed under the proposed Specific Plan Update would be required to comply with the requirements of the City-adopted CALGreen Building Code requirements. Future development projects would be required to comply with the City's Reach Code requirements for electric vehicle infrastructure as well as Municipal Code requirements for on-site bicycle parking and water efficient landscaping and stormwater management. Finally, as discussed in Section 3.16 Transportation, residential and non-residential VMT per capita is predicted to be less than 15 percent below Year 2020 existing Countywide VMT.⁵¹ However, future development projects would be required to implement the City's TDM requirements which would

⁵¹ Hexagon Transportation Consultants, Inc. *Ravenswood Specific Plan Update Transportation Analysis*. March 7, 2023.

reduce average daily trips by 40 percent. Although future projects under the Specific Plan Update (Scenarios 1 and 2) would be required to implement measures that reduce GHG emissions, the Specific Plan Update does not currently have a path towards achieving carbon neutrality by 2045, as factors outside the City's control would be required to achieve that goal.

CALGreen and Title 24 Building Code

Future projects under the Specific Plan Update would comply with CALGreen and the Title 24 Building Code, which require energy conservation measures and water conservation measures such as energy efficient lighting, high-efficiency water fixtures, water-efficient irrigation systems. The Specific Plan Update would be consistent with the CALGreen Tier 1 and Tier 2 standards by requiring EV parking spaces for residential and non-residential uses, and the City's and CALGreen's 65 percent construction waste diversion requirements. Reducing energy and water use reduces the GHG emissions associated with conveying those resources.

East Palo Alto Climate Action Plan and Adaptation Strategies

As discussed in Section 3.8.1.1 Regulatory Framework above, the City of East Palo Alto adopted a CAP in 2023, which did not include the GHG emissions from the 2023 Specific Plan growth. The City's 2030 CAP and Adaptation Strategies establishes guidelines for reaching the goal of reducing per person (or per capita) carbon emissions 55 percent below 2005 levels by 2030 and reaching carbon neutrality by 2045. The Specific Plan Update (under both development scenarios) would increase the total amount of development allowed within the Specific Plan area compared to existing conditions and the growth assumptions of the 2013 Specific Plan EIR, as well as the growth assumptions of the 2023 CAP. The Specific Plan Update (under both development scenarios, with the loop road or multi-use path) would be consistent with applicable measures in the City's CAP, listed in Table 3.8-2, however the total amount of growth, and resulting GHG emissions, would exceed the growth and GHG emissions inventory on which the 2023 CAP was based.

Table 3.8-2: Project Consistency with Applicable Climate Action Plan

Measure	Action	Consistency
T1.1	Support the establishment or expansion of local shuttle service	Consistent. The Specific Plan Update requires future developers to establish a TMA which shall fund and operate a shuttle program that connects employees and residents with nearby commercial, transit and employment centers (per Specific Plan Update 8-4.3 Required TDM Element). The Specific Plan Area will include shuttlebus stops that would allow for shuttles provided by the TMA.
T2.2	Encourage expansion of EV charging infrastructure through incentives and partnerships	Consistent. Consistent with Specific Plan Update 8-5.2 Off-Street Parking Management Strategies, Standard 4, EV parking will be required for all future developments in accordance with CALGreen (Tier 2) guidelines. As an incentive for EV adoption, parking spaces for EVs will be designated, time limited and marked as reserved in prominent and convenient locations. Electric vehicle spaces will count toward the total parking supply and parking maximum.
T3.1	Develop walkable and bikeable street landscape locations	Consistent. Future development under the Specific Plan Update will improve the connectivity of sidewalks as well as add crosswalks and ADA compliant curb ramps. The Specific Plan Update will also include improvements to bicycle facilities including bicycle lanes, multi-use trails, and paths. Landscaping from future developments will provide shade cover along street frontages to accommodate pedestrians in Specific Plan area.
T3.2	Establish parking policies that encourage public transit, biking, and walking	Consistent. The Specific Plan Update (8-5.2 Off-Street Parking Management Strategies) includes requirements for unbundled parking. All off-street parking spaces for future multi-family developments shall be leased or sold separately from the rental or purchase fees for individual units. The Specific Plan Update also includes vehicle parking maximums (Section 8-5.1 in Chapter 8 of the Specific Plan Update)
T4.1	Establish and implement smart growth development policy	Consistent. Smart Growth prioritizes infill, higher density, transportation-oriented development and mixed-use development. Specific Plan Update would add high density and mixed use development close to transit stops. The Specific Plan Update includes pedestrian improvements that would improve the walkability of the Specific Plan area. The Specific Plan area will include a shuttle service which would reduce single-occupancy vehicle use for transit.

(Significant and Unavoidable Impact)

3.8.2.2 *Cumulative Impacts*

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

As discussed in Section 3.8.1, GHG emissions have a broader, global impact; therefore, if a project or Plan exceeds the identified significance thresholds, its emissions would be cumulatively considerable. As discussed under Impact GHG-1 and Impact GHG-2, the Specific Plan would result in significant GHG impacts given there is no feasible pathway for the City to ensure the Specific Plan Update would achieve carbon neutrality by 2045, absent actions by other governmental agencies and technological advances that substantially reduce the GHG emissions of current and future uses. Therefore, the project would have a cumulatively considerable contribution to a significant cumulative GHG emissions impact.

(Significant and Unavoidable Cumulative Impact)

3.9 Hazards and Hazardous Materials

This discussion is based in part upon the Screening Level Environmental Site Assessment completed by Cornerstone Earth Group, Inc. on March 13, 2023. A copy of this assessment is included in Appendix D of this SEIR.

3.9.1 Environmental Setting

3.9.1.1 *Regulatory Framework*

Overview

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

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

Federal and State

Federal Aviation Regulations Part 77

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

Comprehensive Environmental Response, Compensation, and Liability Act

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

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

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

The law authorizes two kinds of response actions:

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

CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.⁵²

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

⁵² United States Environmental Protection Agency. "Superfund: CERCLA Overview." Accessed May 11, 2020. <https://www.epa.gov/superfund/superfund-cercla-overview>.

authority for the EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.⁵³

National Emission Standards for Hazardous Air Pollutants Guidelines

The National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines require that potentially friable asbestos-containing material (ACM) be removed prior to building demolition or remodeling that may disturb the ACMs. Friable asbestos is any 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.⁵⁴ The EPA is currently considering a proposed ban on on-going use of asbestos.⁵⁵

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).⁵⁶

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

⁵³ 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>.

⁵⁴ 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>

⁵⁵Ibid.

⁵⁶ California Environmental Protection Agency. "Cortese List Data Resources." Accessed May 28, 2020. <https://calepa.ca.gov/sitecleanup/corteselist/>.

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 San Mateo 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.⁵⁷ The EPA is currently considering a proposed ban on on-going use of asbestos.⁵⁸ National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines require that potentially friable ACMs be removed prior to building demolition or remodeling that may disturb the ACMs.

CCR Title 8, Section 1532.1

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

Regional and Local

Palo Alto Airport Comprehensive Land Use Plan

A portion of the southeast area of the Specific Plan lies within the boundaries of the Palo Alto Airport Comprehensive Land Use Plan (CLUP), a Plan adopted by the Santa Clara County Airport Land Use Commission, intended to safeguard the general welfare of the inhabitants within the vicinity of the airport, as well as aircraft occupants. The CLUP is intended to ensure that surrounding new land uses do not affect airfield operations. The CLUP establishes an airport land use planning area, referred to as the Airport Influence Area (AIA), which sets the boundaries for application of the CLUP. Development proposals within the AIA are required to be reviewed by the Airport Land Use Commission (ALUC).

The CLUP focuses on the three areas of ALUC's responsibility: (1) aircraft noise, (2) the safety of persons on the ground and in aircraft, and (3) the control of objects in navigable airspace. The

⁵⁷ 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>

⁵⁸ Ibid.

compatibility of land uses in the vicinity of the Airfield are evaluated for each of the potential land use impact categories in terms of the compatibility policies established for each category of concern.

The objective of CLUP safety compatibility criteria is to minimize the risks associated with potential aircraft accidents. These include the safety of people on the ground and the safety of aircraft occupants. The CLUP has safety restriction areas categorized in six safety restriction zones to minimize the number of people exposed to potential aircraft accidents in the vicinity of the Airfield by imposing density and use limitations within these zones. These zones include the (1) Runway Protection Zone, (2) Inner Safety Zone, (3) Turning Safety Zone, (4) Outer Safety Zone, (5) Sideline Safety Zone, and (6) Traffic Pattern Zone.

The below compatibility policies from the CLUP are to be used for ALUC consistency review.

Policy	Description
<i>General Compatibility</i>	
G-6	Any proposed uses that may cause a hazard to aircraft in flight are not permitted within the AIA. Such uses include electrical interference, high intensity lighting, attraction of birds (certain agricultural uses, sanitary landfills) and activities that may produce smoke, dust, or glare. This policy requires the height at maturity of newly planted trees to be considered to avoid future penetration of the FAA FAR Part 77 Surfaces.
G-7	All new exterior lighting or large video displays within the AIA shall be designed so as to create no interference with aircraft operations. Such lighting shall be constructed and located so that only the intended area is illuminated and off-site glare is fully controlled. The lighting shall be arrayed in such a manner that it cannot be mistaken for airport approach or runway lights by pilots.
<i>Height Compatibility</i>	
H-1	Any structure or object that penetrates the FAR Part 77 surfaces will be considered an incompatible land use.
H-2	Any project that may exceed a FAR Part 77 surface must notify the FAA as required by FAR Part 77, Subpart B on FAA Form 7460-1, Notice of Proposed Construction or Alteration.
<i>Noise Compatibility</i>	
N-1	The Community Noise Equivalent Level (CNEL) method of representing noise levels shall be used to determine if a specific land use is consistent with the CLUP.
N-3	Noise impacts shall be evaluated according to the Aircraft Noise Contours.
N-4	No residential or transient lodging construction shall be permitted within the 65 decibel (dB) CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and there are no outdoor patios or

Policy	Description
	outdoor activity areas associated with the residential portion of a mixed-use residential project of a multi-unit residential project.
N-6	Residential construction will not be permitted in the area between the 60 dB CNEL contour boundary and the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound level will be no greater than 45 dB CNEL.
N-7	Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria.
<i>Safety Compatibility</i>	
S-1	These policies and the Safety Zone Compatibility Policies presented in Table 4-2 of the CLUP shall be used to determine if a specific land use is consistent with the CLUP. Safety impacts shall be evaluated according to the Airport Safety Zone.
S-4	Storage of fuel or other hazardous materials shall be prohibited in the Runway Protection Zone. Above ground storage of fuel or other hazardous materials shall be prohibited in the Inner Safety Zone and Turning Safety Zone.
S-5	In addition to the requirements of Table 4-2 in the CLUP, open space requirements, for sites which can accommodate an open space component, shall be established at the general plan level for each safety zone where feasible as determined by the local jurisdiction, as individual parcels may be too small to accommodate the minimum-size open space requirement. To qualify as open space, an area must be free of buildings, and have minimum dimensions of at least 75 feet wide by 300 feet long along the normal direction of flight. The clustering of development and provision of contiguous landscaping and parking areas will be encouraged to increase the size of open space areas.

BAAQMD Asbestos Demolition and Renovation Program

BAAQMD regulates the demolition and renovation of buildings and structures that may contain asbestos, and the manufacture of materials known to contain asbestos.

The program requires that BAAQMD be notified at least 10 business days before:

- Demolition regardless of asbestos content.
- Any renovation involving the removal of 100 square feet or more, 100 linear feet or more, or 35 cubic feet or more of asbestos

For residential buildings of four or fewer dwelling units, a developer/contractor can notify BAAQMD 72 hours in advance with the payment of an additional fee.

Municipal Regional Permit Provision C.12.f

Polychlorinated biphenyls (PCBs) were produced in the United States between 1955 and 1978 and used in hundreds of industrial and commercial applications, including building and structure

materials such as plasticizers, paints, sealants, caulk, and wood floor finishes. In 1979, the EPA banned the production and use of PCBs due to their potential harmful health effects and persistence in the environment. PCBs can still be released to the environment today during demolition of buildings that contain legacy caulks, sealants, or other PCB-containing materials.

With the adoption of the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit (MRP) by the San Francisco Bay Regional Water Quality Control Board on November 19, 2015, Provision C.12.f requires that permittees develop an assessment methodology for applicable structures planned for demolition to ensure PCBs do not enter municipal storm drain systems.⁵⁹ Municipalities throughout the Bay Area are currently modifying demolition permit processes and implementing PCB screening protocols to comply with Provision C.12.f as well as implementing control programs in high priority stormwater catchments. 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.

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating hazards and hazardous materials impacts resulting from planned development within the City, including the following:

Policy	Description
<i>Public Safety Hazards</i>	
4.1	Contamination. Avoid or minimize risk to the community from exposure to contaminated soils or groundwater.
4.2	Management of hazardous materials. Continue to cooperate with federal, state, and county agencies to effectively regulate the management of hazardous materials and hazardous waste.
<i>Health and Safety</i>	
4.4	Agricultural pesticides. Reduce exposure to legacy pesticides, particularly in areas previously under agricultural use, and whenever possible work with landowners and developers to eliminate concentrations of pesticides from soil and groundwater.
<i>Parks, Open Space, and Conservation</i>	
9.8	Soil Quality. Require soil testing for contaminants on sites that have historically, or currently, been exposed to chemical releases. If contamination does exist, require remediation strategy to reduce or eliminate contamination on site.

⁵⁹ California Regional Water Quality Control Board. *San Francisco Bay Region Municipal Regional Stormwater NPDES Permit*. November 2015.

Safety and Noise

- 4.5 **Airport Land Use Plan.** Coordinate with the Santa Clara County ALUC and Palo Alto Airport Comprehensive Land Use Plan (CLUP) and consider the CLUP in making any land use decisions in airport influence area.
- 5.4 **Emergency Access Routes.** Ensure the City's designated system of emergency access routes is coordinated with regional activities for both emergency operations and evacuation.
-

Palo Alto Airport Long Range Facilities and Sustainability Plan

In May 2023, the City of Palo Alto began the preparation of the Long-Range Facility and Sustainability Plan (LRFSP) for the Palo Alto Airport. The LRFSP will be a guide for the Airport's improvements over the next 20 years with a focus on sustainability. The goal of the LRFSP is to determine the extent, type, and schedule of improvements needed to accommodate existing and predicted future needs at the Airport in a sustainable manner. The City is in the process of holding community/public outreach meetings to encourage input on the content of the LRFSP.

East Palo Alto Hazard Mitigation Plan

The City participates in the San Mateo County Hazard Mitigation Plan (HMP). The HMP is intended to enhance public awareness, create a decision-making tool for management, promote compliance with State and federal program requirements, enhance local policies for hazard mitigation capacity, support viability after a hazard event, and provide inter-jurisdictional coordination. In 2021, the City of East Palo Alto, in coordination with the County of San Mateo, adopted an update to the Local Multi-Jurisdictional HMP. The HMP is designed to conform to requirements of the Federal Disaster Mitigation Act of 2000, which requires all cities counties, and special districts to adopt an HMP to receive disaster mitigation funding from FEMA. The HMP assesses the dam failure, drought, earthquake, flood, landslide, severe weather, tsunami, and wildfire hazards. It also includes profiles for human-caused hazards and climate change.

City of East Palo Alto Emergency Operations Plan

The City of East Palo Alto adopted its Emergency Operations Plan (EOP) in January 2011. The City of East Palo Alto EOP identifies resources for emergency response and establishes coordinated action plans for specific emergency situations and disasters, such as hazardous materials incidents and specifies emergency evacuation routes. The EOP describes organizational structures, roles and responsibilities, policies, and protocols for providing emergency support. The EOP facilitates response and short-term recovery activities (which set the stage for successful long-term recovery). It drives decisions on long-term preparedness and mitigation efforts or risk-based preparedness measures directed at specific hazards. The EOP is flexible enough for use in all emergencies. It also describes the purpose of the plan, situation and assumptions, concept of operations, organization and assignment or responsibilities, administration and logistics, plan development and maintenance, and authorities and references. It contains functional sections (EOC Checklists), hazard-specific appendices (Event Specific Checklists), and a glossary. It identifies pre-designated jurisdictional and/or functional area representatives to the EOC Emergency Response Team to facilitate

responsive and collaborative incident management. Additionally, the EOP incorporates East Palo Alto into the National Incident Management System, California Standardized Emergency Management System, and Incident Command System.⁶⁰

3.9.1.2 Existing Conditions

Historic Uses and Reported Spills

The Specific Plan area has historically been used for agricultural activities, residences, and a variety of commercial and industrial purposes and multiple on-site businesses have handled and stored hazardous substances.

Multiple spill incidents (including Leaking Underground Storage Tanks (LUST) and cleanup program site cases (CPS)) have been reported within the Specific Plan area that have impacted soil, soil vapor and/or groundwater. Identified contaminants have included VOCs, semi-VOCs,⁶¹ pesticides, petroleum hydrocarbons, metals and/or PCBs. While some of the LUST and CPS cases have been closed by the overseeing regulatory agencies, 16 cases within the Specific Plan area remain open. Table 3.9-1 and Figure 3.9-1 shows the cleanup cases within the Specific Plan area as of February 2023.

Table 3.9-1 Summary of Reported On-Site Spill Incidents		
	Site Name (Location)	Description
Open Cleanup Program Sites		
1	Sycamore Real Estate Investments (391 Demeter Street)	Listed as open case on the CPS database
2	Sycamore Real Estate Investments (350 Demeter Street)	Listed as an open case on the CPS database
3	Sycamore Real Estate Investments (230 Demeter Street)	Listed as an open case on the CPS database
4	Sycamore Real Estate Investments (2535 Pulgas Avenue)	Listed as an open case on the CPS database. Also listed as Touchatt Trucking on the LUST database as a closed case.
5	Sycamore Real Estate Investments (2555/2565 Pulgas Avenue)	Listed as part of the Sycamore Real Estate Investments multi-property CPS case (open Case ID T10000019768). Also, listed as a closed case on the CPS database (closed Case ID SL0608186716).

⁶⁰ City of East Palo Alto. *Emergency Operations Plan*. January 2011.

⁶¹ Volatile organic compounds (VOCs) are a group of chemicals which can readily transform into vapor at low temperatures. Some examples of products that include Semi-VOCs include many pesticides, oil-based products, and fire retardants. Semi-VOCs can deposit on outdoor surfaces. VOCs are more likely to be dispersed, and monitored for, in the air. The more volatile a compound is, the lower the boiling point range is. Semi-VOCs typically have higher boiling points than VOCs.

U.S. Environmental Protection Agency. What are SVOCs (and VOCs)? Accessed May 23, 2024.

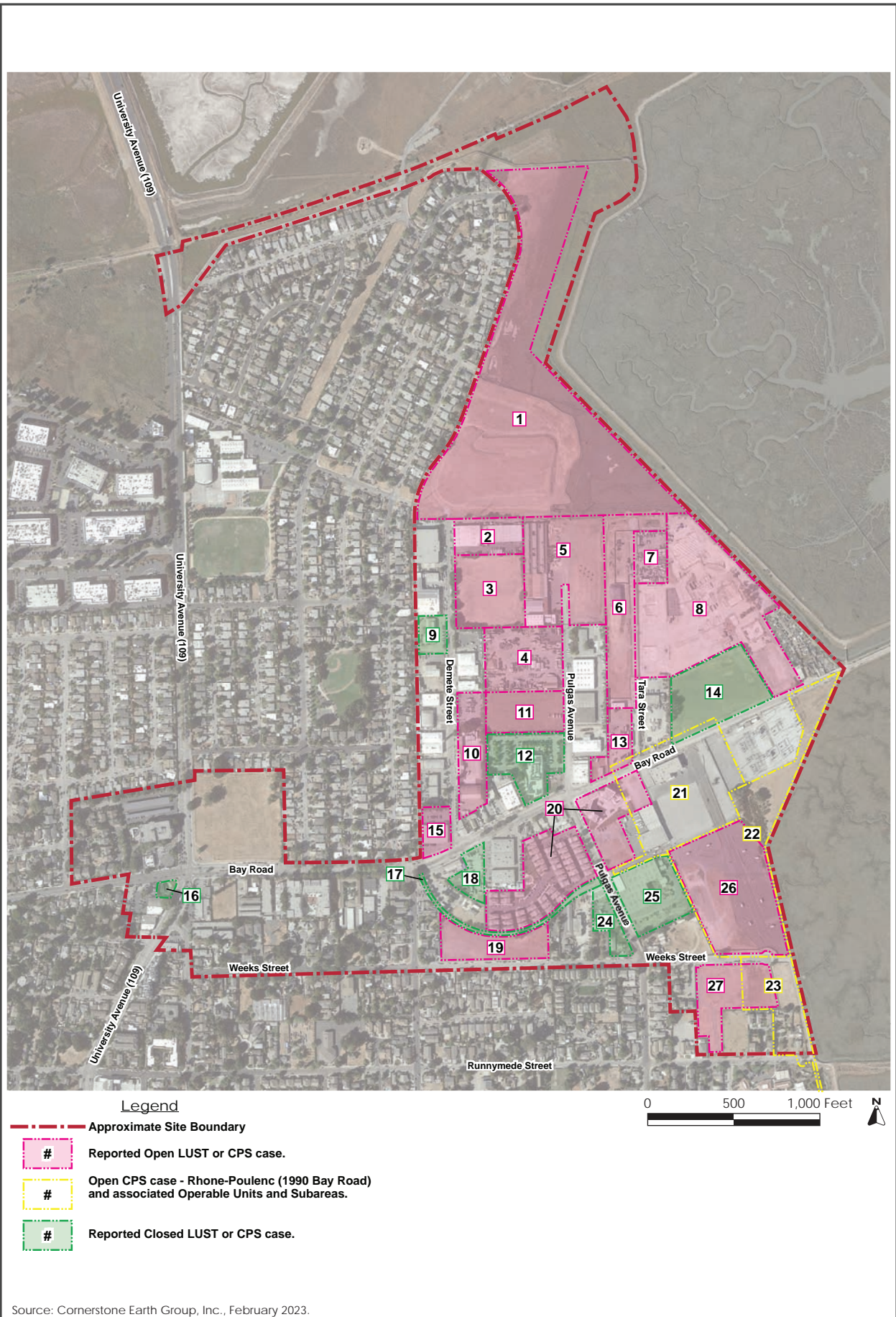
<https://www.epa.gov/east-palestine-oh-train-derailment/what-are-svocs-and-vocs>.

Technical Overview of Volatile Organic Compounds. Accessed May 23, 2024. <https://www.epa.gov/indoor-air-quality-iaq/technical-overview-volatile-organic-compounds>.

Table 3.9-1 Summary of Reported On-Site Spill Incidents		
6	Sycamore Real Estate Investments (151 Tara Road)	Listed as an open case on the CPS database
7	Sycamore Real Estate Investments (264 Tara Road)	Listed as an open case on the CPS database
8	Romic Environmental Technologies (2081 Bay Road)	Listed as an open case on the CPS database. The Romic facility historically was used as a hazardous waste management facility whose services included solvent recycling, fuel blending, wastewater treatment, and hazardous waste storage and treatment. During facility operations conducted by Romic and its predecessor companies, soil, soil vapor and groundwater were contaminated at the Site. The primary contaminants of concern are chlorinated and aromatic volatile organic compounds (VOCs). Other contaminants are also present, including metals (e.g., lead), polychlorinated biphenyls (PCBs), petroleum hydrocarbons, and semi-VOCs.
11	Iwasaki Nursery (2519 Pulgas Avenue)	Listed as an open case on the CPS database. This property is the northern portion of the former Iwasaki Nursery, which also is listed as a closed case on the LUST database.
13	Pick & Save Auto Wreckers (1985 Bay Road)	Listed as an open case on the CPS database
15	1801-1805 Bay Road (1801 – 1805 Bay Road)	Listed as an open case on the CPS database. Electrite Company Inc. at 1805 Bay Road also is listed as a closed case on the LUST database.
19	Midpen Housing Corp. (965 Weeks Street)	Listed as an open case on the CPS database
20	Pulgas and Bay (multiple addresses)	<p>The Pulgas and Bay property consists of multiple parcels located west of Pulgas Avenue that now are subdivided into 51 individual parcels developed with single family homes, as well as parcels located east of Pulgas Avenue including the EPACENTER (Youth Art & Music Center) and the proposed public library parcel (APN 063-240-490).</p> <p>The Pulgas and Bay parcels are listed as an open case on the CPS database.</p> <p>East Palo Alto Youth Arts and Music Center at 1950 Bay Road is listed as a separate open case on the CPS database. A portion of the residential area west of Pulgas Avenue also is listed as closed case on the LUST database (Peck & Hiller, 2479 Pulgas Avenue).</p>

Table 3.9-1 Summary of Reported On-Site Spill Incidents

21-23	Rhone-Poulenc Upland Operable Unit, Upland Operable Unit Annex, South of Weeks Street Subarea (1990 Bay Road)	Listed as an open case on the CPS database. Rhone-Poulenc and predecessors at 1990 Bay Road operated a sodium arsenate herbicide and pesticide formulation and production facility from about 1926 to 1971. In 2001, the property was transferred to StarLink Logistics, Inc. (SLLI), a successor to Rhône-Poulenc. Investigations starting in the 1980s identified arsenic soil contamination on the 1990 Bay Road property and at properties in the vicinity.
26	Former Call-Mac Transportation (1175 Weeks Street)	Listed as an open case on the CPS database
27	Former Sodium Arsenate, Herbicide and Pesticide Formulation and Production Facility (1200 Weeks Street)	Listed as an open case on the CPS database
Closed Cleanup Program Sites		
9	Global Steel (255 Demeter Street)	Listed as a closed case on the CPS database
12	Ravenswood Family Health Clinic (aka., Iwasaki Nursery) 1885 Bay Road	Listed as a closed case on the CPS database. The property formerly was the southern portion of the Iwasaki Nursery at 2519 Pulgas Avenue, which is also listed as a closed case on the LUST database.
17	Former Rail Spur - Bay to Pulgas Section	Listed as a closed case on the CPS database.
18	Ravenswood Family Health Center (1802-1804 Bay Road)	Listed as a closed case on the CPS database.
Open LUST Cases		
10	Peninsula Charter Lines (160 Demeter Street)	Listed as an open case on the LUST database. A former LUST case at the property was closed by the San Mateo County Department of Environmental Health (DEH) in 2004. The current case was opened following UST removal activities in 2001.
Closed LUST Cases		
14	Bay Area Auto Wreckers (2017 Bay Road)	LUST cases are listed as closed. However, residual contaminant concentrations potentially remain at each of these properties.
16**	Ibrahim Property (2395 University Avenue)	
24**	Pitcher Drilling (2447 Pulgas Avenue)	
25	R.E. Borrmann Steel Co. (2450 Pulgas Avenue)	
<p>Notes:</p> <p>** Site management requirements were stipulated in the regulatory agency case closure documentation that consisted of the following (or similar) requirements: As a result of residual contaminant concentrations, changes in land use or removal of soil and groundwater from the affected area may create a risk. Therefore, any proposed change in land use or proposed soil or groundwater removal activity at the subject site must be submitted to the San Mateo County Groundwater Protection Program (GPP) for our review under Government Code Section 65850.2 so we can evaluate whether the residual contaminates will likely pose a risk to public health and the environment if the proposed activities are implemented.</p>		



Source: Cornerstone Earth Group, Inc., February 2023.

LUST CASES AND CLEANUP PROGRAM SITES FIGURE 3.9-1

Ravenswood Industrial Area

A large portion of the Specific Plan area (parcels located north of Weeks Street and east of Clark Avenue and Illinois Street) is located within an area referred to as the Ravenswood Industrial Area (RIA). Refer to Figure 3.9-1 Pollutant releases were identified at the Romic Chemical (1981 Bay Road) and Rhone-Poulenc (1990 Bay Road) properties in the Specific Plan area during the 1980s and the area was subsequently designated as a “redevelopment project area” by the East Palo Alto Redevelopment Agency, invoking redevelopment authority. To abate water quality and environmental impacts, the Water Board adopted Site Cleanup Requirements (Order Nos. 92-037 and 92-086) for the RIA in 1992 which set forth tasks to: 1) conduct site use histories of the properties, 2) prepare workplans for investigations, and 3) submit the results of investigations and propose additional investigations necessary. In 1995, the USEPA implemented an area wide soil and groundwater investigation within the RIA as part of a Regional Brownfield Pilot Project. While not as detailed as those prepared by each of the individual property owners, this investigation was adequate to gauge the general magnitude of the conditions within the RIA.

The results of the 1995 investigation found that the RIA (not including the Romic or Rhone-Poulenc facilities) was not as significantly impacted. In general, it was concluded that additional assessment and needed remediation activities could be conducted concurrent with and funded by the redevelopment of the individual properties, and that the RIA as a whole did not pose a significant threat to human health or the environment in its then current commercial/industrial land use setting.

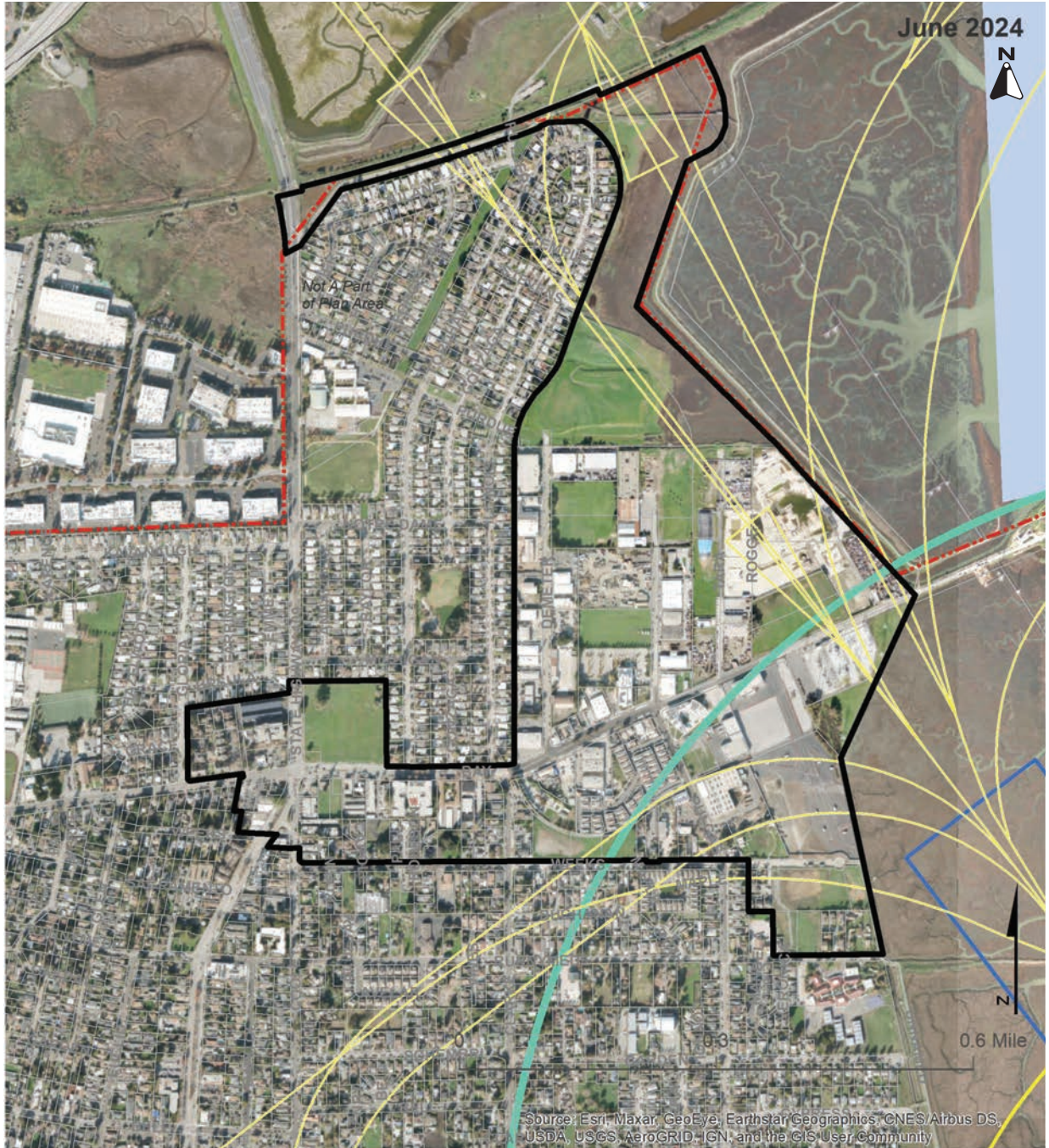
At some properties within the RIA, redevelopment activities and property transactions have prompted further investigations to evaluate the extent to which past uses had impacted soil, soil vapor, and/or groundwater quality, and to comply with the Site Cleanup Requirements adopted by the Water Board (Orders 92-037 and 92-086). Remedial work and in some cases redevelopment activities have been completed at several properties under regulatory agency oversight (e.g., the closed LUST and CPS cases listed in Table 3.9-1). At other properties, investigations and/or monitoring activities are in progress, or have not yet been initiated.

Other Hazards

Airports

The nearest airport to the Specific Plan area is Palo Alto Airport, located approximately 0.58 mile southeast of the Specific Plan area. A portion of the southeast corner of the Specific Plan area is located within the airport influence area and Traffic Pattern Zone of the Palo Alto Airport (refer to Figure 3.9-2).⁶²

⁶² County of Santa Clara. *Comprehensive Land Use Plan Santa Clara County, Palo Alto Airport*. November 19, 2008, Amended November 16, 2016.



- Final Specific Plan Boundary
- Runway
- Palo Alto Airport Flight Path
- Inner Safety Zone
- Outer Safety Zone
- Runway Protection Zone
- Traffic Pattern Zone

AIRCRAFT TRAFFIC PATTERN ZONE

FIGURE 3.9-2

Wildfire

The Specific Plan area is surrounded by urban development, and wetlands fringing the Bay, and is not located within a Very-High Fire Hazard Severity Zone for wildland fires designated by CalFIRE.⁶³

3.9.2 Impact Discussion

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

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

3.9.2.1 *Project Impacts*

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

The 2013 Specific Plan EIR concluded that buildout of the 2013 Specific Plan would result in increased population and mixed-use development near existing and future industrial uses resulting in potential for increased accidents and exposure of residents to use, storage, transport, and disposal of hazardous materials; however, implementation of General Plan Policy 4.2 (which requires projects to manage hazardous materials and waste), and 2013 Specific Plan Policy LU-6.2

⁶³ California Department of Forestry and Fire Protection. Santa Clara County FHSZ Map. October 8, 2008. Accessed March 21, 2023. https://osfm.fire.ca.gov/media/6764/fhszl_map43.pdf

would reduce potential impacts to a less than significant level through careful review of development and controlling the density of development in sites immediately adjacent to industries using hazardous chemicals.

- **2013 Specific Plan Policy LU-6.2:** Monitor and control the type and quantity of chemical use by businesses that are located adjacent to mixed-use and residential sites to minimize exposure in the event of accidental chemical releases to the environment.

Future office, civic, R&D, industrial, and retail developments under the Specific Plan Update Scenarios 1 and 2 would also be required to implement the above policy (which is Policy LU-4.2 in the Specific Plan Update) to reduce the impacts of accidental chemical releases to the environment and adjacent residential uses.

The Specific Plan Update (under both development scenarios, including the multi-use path, with and without the loop road) would increase the total amount of development allowed within the Specific Plan area compared to existing conditions and the growth evaluated in the 2013 Specific Plan EIR. The Specific Plan Update under Scenarios 1 and 2 allows approximately twice the amount of development as the 2013 Specific Plan EIR. The Specific Plan area does not include University Village, which was included in the 2013 Specific Plan area.

Existing uses within the Specific Plan area use, handle, generate, and store hazardous materials and hazardous waste. Existing uses also use and store fertilizers, pesticides, herbicides, and consumer cleaning chemicals. Future uses could also use, handle, generate, and store similar type hazardous materials as existing, ongoing uses.

The storage, use, handling, generation, transport, and disposal of hazardous materials during operations of existing and future uses within the Specific Plan area is required to comply with existing federal, state, and local laws, regulations, and programs, including the RCRA, TSCA, and CalARP.

Vehicles related to industrial uses allowed by the Specific Plan Update could routinely use the future loop road to transport hazardous materials. However, transport of hazardous materials on the loop road would be subject to the regulations described above to ensure the safe transport these materials. Future use in compliance with existing hazardous materials regulations would not create a significant hazard to the public or environment through routine transport, use, disposal, or foreseeable upset of hazardous materials.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded that development allowed under the Specific Plan could cause existing contamination in the soil and groundwater to be released to ground or surface water. However, implementation of Specific Plan Policy LU-7.1 would ensure that future projects would prepare a Phase I Environmental Site Assessment (ESA). The policy also requires that if recommended by the Phase I ESA, a Phase II ESA shall be prepared and the appropriate remediation shall be completed (if necessary). With the implementation of this policy, the 2013 Specific Plan impacts related to soil and groundwater would be less than significant.

The Specific Plan Update (under both development scenarios, with and without the loop road) would increase the total amount of development allowed within the Specific Plan area compared to existing conditions and the growth evaluated in the 2013 Specific Plan EIR. The Specific Plan area is located within the 2013 Specific Plan area boundaries. As summarized in Table 3.9-1 and shown on Figure 3.9-1, spill incidents have been reported at multiple properties within the Specific Plan area that have impacted soil, soil vapor and/or groundwater. In general, identified contaminants have included VOCs, semi-VOCs, pesticides, petroleum hydrocarbons, metals and/or PCBs. No cases have been reported where the future loop road or multi-use path would be located. It is possible there are sites within the Specific Plan area that contain Per- and Polyfluoroalkyl Substances (PFAS), which are chemicals that can be found in consumer products and are regulated by San Francisco Bay Regional Water Quality Control Board and the U.S. Environmental Protection Agency (U.S. EPA).

As discussed in the proposed Specific Plan Update Policies LU-5.1 through LU-5.6, future projects would be required to prepare a site-specific Phase I Environmental Site Assessment (Phase I ESA) prior to development/redevelopment. If the above-mentioned chemicals/substances are identified as contaminants of concern, these contaminants would be subject to screening levels published by the California Department of Toxic Substances Control (DTSC), San Francisco Bay Regional Water Quality Control Board (RWQCB) and/or U.S. Environmental Protection Agency (U.S. EPA). Future development projects would comply with the following proposed Specific Plan Update Policies to reduce impacts related to groundwater, soil, and soil vapor. These policies would be an update to the 2013 Specific Plan Policy LU-7.1 to include more detailed information about regulatory requirements related to remediation and reporting, to address hazardous materials impacts. In addition, abandoned wells can result in vertical migration of groundwater contamination if they are not properly destroyed. If groundwater levels rise, an abandoned well can become an artisan well with uncontrolled water flow that can adversely impact future developments.

Impact HAZ-1: Future developments projects could 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.

Specific Plan Policies LU-5.1 through LU-5.6 have been included to reduce the groundwater contamination related impacts of future developments to less than significant levels.

Proposed Specific Plan Update Policies

- **Policy LU-5.1:** Prior to the development or redevelopment of site parcels, a property-specific Phase I ESA shall be completed in accordance with ASTM Standard Designation E 1527-21 (or most recent version) to identify Recognized Environmental Conditions, evaluate the property history, and establish if the property is likely to have been impacted by chemical releases. Soil, soil vapor and/or groundwater quality studies shall subsequently be conducted, if warranted based on the findings of the property-specific Phase I ESAs, to evaluate if remedial measures are needed to protect the health and safety of site occupants and construction workers.
- **Policy LU-5.2:** Prior to the start of earthwork activities (e.g., excavation, trenching, grading, etc.) on properties with known contaminants of concern (COC) exceeding the lower of the current California Department of Toxic Substances Control (DTSC), San Francisco Bay Regional Water Quality Control Board (RWQCB) or U.S. Environmental Protection Agency (U.S. EPA) residential screening levels, an appropriate corrective action/risk management plan [e.g., RAP, removal action workplan (RAW) or Site Management Plan (SMP)] shall be prepared that reflects the results of the on-site investigations. The corrective action/risk management plan shall describe measures necessary to protect the health and safety of future site occupants, and establish appropriate management practices for handling and monitoring of impacted soil, soil vapor and groundwater that potentially may be encountered during construction activities. The corrective action/risk management plan shall be prepared by an Environmental Professional and be submitted to an appropriate overseeing regulatory agency (e.g., DEH, DTSC or RWQCB) for review. Regulatory agency approval shall be obtained prior to commencing earthwork activities.
- **Policy LU-5.3:** A Health and Safety Plan (HSP) shall also be prepared to establish health and safety protocols for personnel working at the future project site. All remedial measures shall be completed under regulatory agency oversight and meet all applicable federal, state and local laws, regulations and requirements. Following completion, a report documenting compliance with the provisions of the corrective action/risk management plan and describing the work completed shall be submitted to and approved by the overseeing regulatory agency.
- **Policy LU-5.4:** Groundwater monitoring wells associated with the identified open leaking underground storage tank (LUST) and cleanup program site (CPS) cases are located on some Site parcels. These wells must be protected during construction. Upon written approval from the overseeing regulatory agency and the well owner, the wells would be destroyed under permit from the DEH prior to development activities. Relocation of the wells may be

required. Monitoring wells that are no longer in use, or any unidentified wells (such as former agricultural wells) encountered during construction activities, shall be properly destroyed in accordance with DEH requirements.

- **Policy LU-5.5:** If a future development requires importing soil for property grading, the source and quality of imported soil shall be documented and reported to the appropriate overseeing regulatory agency prior to the start of earthwork activities.
- **Policy LU-5.6:** As part of the facility closure process for project site occupants with permits for storage of hazardous materials and/or generation of hazardous waste, facility closure activities (such as removal of remaining hazardous materials, cleaning of hazardous material handling equipment, decontamination of building surfaces, and waste disposal practices) shall be coordinated with the San Mateo County Department of Environmental Health (DEH) to ensure that required closure activities are completed prior to redevelopment of site parcels or change in use.

Future development in compliance with existing regulations and proposed Specific Plan Update Policies LU-5.1 through LU-5.6 would reduce impacts from on-site soil, soil vapor, and/or groundwater contamination by requiring sampling for contaminants, proper handling of hazardous materials contamination, and remediation of contamination under regulatory agency oversight. **(Less than Significant Impact)**

Asbestos-Containing Materials, Lead-Based Paint, and Polychlorinated Biphenyls

As discussed under Section 3.9.1.1, Regulatory Framework, the demolition of buildings constructed prior to 1978 could expose the public to ACMs, LBP, or PCBs. Future Specific Plan development would comply with NESHAP, CCR Title 8, Section 1532.1, and MRP Provision C.12.f to reduce impacts from ACMs, LBP, and PCBs.

The following Specific Plan Policies assist in compliance with existing regulations to reduce potential impacts to the public and environment from exposure to ACMs, LBP, and PCBs:

- **Policy LU-5.7:** Asbestos Survey. Prior to issuance of demolition permits, an asbestos survey shall be completed on all structures proposed for demolition that are known or suspected to have been constructed prior to 1978 in accordance with National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines. NESHAP guidelines require the removal of potentially friable asbestos-containing materials (ACMs) prior to building demolition or renovation that may disturb the ACM.
- **Policy LU-5.8:** Demolition/Renovation of Buildings Potentially Containing Asbestos: Prior to demolition, future project applicants shall submit a letter of approval that includes a Job Number (J#) issued by BAAQMD, as proof of notification. The applicant shall notify BAAQMD of any demolition or renovation requiring the removal of 100 square feet or more, 100 linear feet or more, or 35 cubic feet or more of asbestos, at least 10 days prior to demolition or renovation. For residential buildings of four or fewer dwelling units, future applicants can notify BAAQMD 72 hours in advance with the payment of an additional fee.

- **Policy LU-5.9:** Lead-Based Paint Survey. Prior to issuance of a demolition permit, a lead-based paint (LBP) survey shall be completed on all structures proposed for demolition that are known or suspected to have been constructed prior to 1978. If LBP is identified, then federal and state construction worker health and safety regulations shall be followed during renovation or demolition activities. If loose or peeling LBP is identified at the building, it shall be removed by a qualified lead abatement contractor and disposed of in accordance with existing hazardous waste regulations. Requirements set forth in the CCR Title 8, Section 1532.1 shall be followed during demolition activities, including employee training, employee air monitoring, and dust control. Any debris or soil containing LBP or coatings shall be disposed of at landfills that meet acceptance criteria for the waste being disposed.
- **Policy LU-5.10:** Prior to future projects disposing of any demolition waste (e.g., as fluorescent lamps, PCB ballasts, lead acid batteries, mercury thermostats, and lead flashings), the demolition contractor shall coordinate with DEH to determine if the waste is hazardous and ensure proper disposal of waste materials.

Future development (under both development scenarios, with the loop road or multi-use trail) in compliance with existing regulations and proposed Specific Plan Update Policies LU-5.7 through LU-5.10 would reduce impacts from ACMs, LBP, and PCBs by requiring a survey and proper removal of ACMs, LBP, and PCBs.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded that buildout of the Specific Plan could increase development within one quarter mile of Costano Elementary School, located at 2695 Fordham Street, 850 feet west of the Specific Plan area’s western boundary, and East Palo Alto Charter School, located at 1286 Runnymede Street, 270 feet south of the Specific Plan area’s southeastern boundary. However, project-specific CEQA environmental review would ensure that potential impacts to schools from these developments are evaluated and mitigation measures are identified, if necessary, thereby reducing program level impacts to a less than significant level.

Additional schools identified within one quarter mile of the Specific Plan area include the Cesar Chavez Ravenswood Middle School, located 520 feet west of the Specific Plan area’s western boundary, and KIPP Esperanza High School, located at 1039 Garden Street, approximately 700 feet southwest of the southeastern boundary of the Specific Plan area. The Specific Plan Update (under both development scenarios, including the multi-use path with or without the loop road) would increase the total amount of development allowed within the Specific Plan area compared to existing conditions and the growth evaluated in the 2013 Specific Plan EIR. Consistent with the 2013 Specific Plan EIR, the future development allowed under the proposed Specific Plan Update (under

both development scenarios) would be subject to project-level CEQA environmental review which will ensure that potential impacts from these developments are evaluated and mitigation measures are identified, if necessary. Future development projects under the Specific Plan Update would comply with existing regulations and the Specific Plan Project Policies discussed under Impact HAZ-2 to reduce hazardous materials impacts, including those to schools, to a less than significant level. Therefore, implementation of the Specific Plan Update would not have a significant impact to schools due to the release of hazardous materials, substances, or waste.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded that although there are a number of hazardous materials sites located within the Specific Plan area, and it is possible that unknown contamination could be discovered during excavation, implementation of 2013 Specific Plan Policy LU-7.1 would reduce this impact to a less than significant level through requiring sampling and analysis on development sites if contamination is suspected, and appropriate remediation and site management, if contamination is confirmed.

- **2013 Specific Plan Policy LU-7.1:** For all new development, or substantial renovation or redevelopment (greater than 20 percent of assessed valuation) of sites in Subareas II and III (as defined by Figure 4.8-3 in the Specific Plan EIR), in the 4 Corners area, or on the south side of Bay Road, require a Phase I Environmental Site Assessment (ESA), and, if recommended by the Phase I ESA, a Phase II ESA to include soil and groundwater sampling and analysis. Share the results of the Phase I/II ESA with appropriate regulatory agencies to enable an appropriate remediation plan is to be developed. The remediation plan may include soil and groundwater cleanup, engineering controls such as vapor barriers or venting systems, and institutional controls such as deed restrictions or activity use restrictions.

2013 Specific Plan Policy LU-7.1 would be replaced by Specific Plan Update Policies LU-5.1 through LU-5.6 under checklist question b) to reflect requirements based on the most recent screening level environmental site assessment (refer to Appendix D of this Draft SEIR). Future projects under the Specific Plan Update would implement these policies to avoid creating significant hazards (related to soil and groundwater) to the public and the environment.

In the Specific Plan area, one facility (see Table 3.9-1, #10) is listed as an open LUST case, two facilities (Table 3.9-1, #15 and #20) are listed as closed LUST cases, and four facilities (Table 3.9-1, #14, #16, #24, and #25) are listed as closed LUST cases (with residual contamination) on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. In compliance with existing regulations and policies (including the Specific Plan Update Policies identified under

checklist b), future development would not create a significant hazard to the public or the environment due to the redevelopment of sites on the Cortese List.

(Less than Significant Impact)

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

The Palo Alto Airport is 1.1 mile southeast of the Specific Plan area. The 2013 Specific Plan EIR concluded that implementation of the 2013 Specific Plan Policy LU-8.1 which prohibits land uses with high concentrations of people, restricts building heights, and includes minimum open space requirements, would reduce potential impacts associated with buildout of the Specific Plan within the Airport Land Use Compatibility Plan area for Palo Alto Airport to a less than significant level.

- **2013 Specific Plan Policy LU-8.1:** Prohibit land uses that encourage a very high concentration of people or negatively affect air navigation as described in the Airport Land Use Control Plan (ALUCP), or are in excess of maximum heights recommended in the ALUCP, from the Traffic Pattern Zone of the Plan Area. Evaluate development applications on properties in this zone for their adherence to these regulations.

Aircraft Noise

As discussed in detail in Section 3.13 Noise and Vibration under Impact NOI-3, future development under the Specific Plan Update would comply with CLUP noise policies presented above in Section 3.9.1.1 Regulatory Framework. **(Less than Significant Impact)**

Safety of Persons

The southeast corner of Specific Plan area is located within the traffic pattern zone of the CLUP, which is the portion of the airport area routinely overflowed by aircraft operating in the airport traffic pattern. The potential for aircraft accidents is relatively low and the need for land use restrictions is minimal. Based on the CLUP, the traffic pattern zone (TPZ) has no limits for residential use or maximum population density. The CLUP stipulates that if non-residential uses are not feasible, residential infill is allowed. Office, residential, employment center, medical, civic, and retail uses are proposed within the traffic safety zone (refer to Figure 3.9-2). Future Specific Plan Update development would comply with CLUP safety compatibility policies G-6 and G-7 related aircraft operations in the AIA and height compatibility policies H-1 and H-2 (to ensure the safety compatibility with Palo Alto Airport operations).

The Specific Plan Update proposes to replace 2013 Specific Plan Policy LU-8.1 with Policy LU-6.1, as follows:

Proposed Specific Plan Update Policy

- **Policy LU-6.1:** Follow the land use planning and approval processes outlined in the Palo Alto Airport Land Use Compatibility Plan (CLUP). Avoid land uses that negatively affect air navigation as described in the CLUP or are in excess of maximum heights identified in the CLUP from the Traffic Pattern Zone.




The Specific Plan Update Policy LU-6.1 is an update to 2013 Specific Policy LU-8.1 which was made to clarify that future projects would comply with the planning and approval processes outlined in the CLUP. The policy still requires future projects to comply with the maximum heights in the CLUP. Future development under the Specific Plan Update would comply with the maximum FAR Part 77 Surfaces height restrictions (above mean sea level) identified in Figure 3.9-3. The maximum building height allowed is 122 feet above the ground surface. The Specific Plan area ranges from five to 20 feet above mean sea level. When accounting for the Specific Plan area's existing grades above sea level (i.e., by adding the highest grades to the maximum building height allowed (as shown on Figure 2.3-2), future development's building heights would not exceed the height limitations identified in Figure 3.9-3. Future developments would comply with the CLUP's height restrictions and would not result in an aircraft safety hazard.

(Less than Significant Impact)

Objects in Navigable Airspace

The objective of the CLUP height compatibility criteria is to avoid development of land uses, which, by posing hazards to flight, can increase the risk of an accident occurring. Structures of a height greater than 200 feet above ground level can be a special hazard to aircraft in flight. The CLUP relies on the FAA FAR Part 77 obstructions standards as elevations above which structures may constitute an aircraft safety hazard. The ground level elevation in the Specific Plan area varies from below five feet to approximately 40 feet. The CLUP's building height restrictions for the Specific Plan area range from 15 and 254 feet above mean sea level for structures. The maximum building heights allowed under the Specific Plan Update are shown in Figure 2.3-2. The southern portion of the Specific Plan area (i.e., the area closest to the Airport) limits the maximum building heights allowed according to the CLUP, ranging from 30 to 96 feet above the ground surface. The maximum building height allowed in the Specific Plan area would be 120 feet above the ground surface (seven to eight stories). The maximum building heights allowed are consistent for Specific Plan Update Scenarios 1 and 2, i.e., although Scenario 2 allows more development than Scenario 1, the maximum building heights allowed under either scenario are the same.



-  Final Specific Plan Boundary
-  Part77 Airport Surfaces (Height Restrictions)
-  Palo Alto Airport Flight Path

FAA FAR PART 77 HEIGHT RESTRICTIONS

FIGURE 3.9-3

Although the 2013 Specific Plan would have less intense development, it also allowed a maximum height of eight stories (approximately 120 feet above the ground surface).

Future Specific Plan Update development would comply with CLUP height compatibility policies requiring FAA notification for any construction equipment (such as cranes) or new structures that exceed the FAR Part 77 surfaces. Through the notification process, future development exceeding FAR Part 77 surfaces would obtain a “Determination of No Hazard” and comply with any conditions set forth by the FAA in its determinations.

Future development under the Specific Plan Update would comply with CLUP height compatibility policies, including notification requirements and obtaining necessary No Hazard Determinations, to prevent aviation hazards.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded that buildout of the Specific Plan would only make changes to the existing roadway network, and increase traffic within the area, resulting in more congestion on existing streets. The loop road was proposed as a part of the 2013 Specific Plan to help reduce traffic congestion on Bay Road and at the Bay Road/University Avenue intersection and improve access to the parcels in the eastern portions of the Specific Plan area. The 2013 Specific Plan EIR concluded that future development projects and new and modified roadways would be reviewed by Menlo Park Fire Protection District (MPFPD) to prevent potential interference with emergency access or evacuation plans consistent with 2013 Specific Plan Policy LU-8.3, reducing impacts to a less than significant level.

The Specific Plan Update (under both development scenarios, including the multi-use path with or without the loop road) would increase the total amount of development allowed within the Specific Plan area compared to existing conditions and the growth evaluated in the 2013 Specific Plan EIR. Under the Specific Plan Update (Scenarios 1 and 2), future projects would include new roadway connections (listed in Section 2.3.4 of the SEIR). These new street connections would improve access to future sites in the Specific Plan area, particularly sites adjacent to Bay Road, Demeter Street, Pulgas Avenue, and Tara Road. As stated above, the loop road would improve access, including during emergencies, to parcels located in the eastern portions of portions of the Specific Plan area.

No changes to Specific Plan Policy LU-8.3 are proposed. Consistent with the 2013 Specific Plan EIR, future development allowed under the proposed Specific Plan Update would be reviewed by MPFPD to prevent potential interference with emergency access or evacuation plans. For these reasons, implementation of the proposed Specific Plan Update (under both development scenarios)

would result in the same less than significant impact as the 2013 Specific Plan EIR. **Less than Significant Impact)**

(Less than Significant Impact)

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

The 2013 Specific Plan EIR concluded that because the project site is located adjacent to wetlands and urban areas and is located several miles from the closest wildland area subject to fire hazard, buildout of the Specific Plan would not expose people or structures to significant risk of loss, injury, or death involving wildland fires.

Future development allowed under the proposed Specific Plan update (under both development scenarios, with the loop road or multi-use trail) would occur within the same area as the 2013 Specific Plan EIR, with the exception of the University Village neighborhood which is no longer considered a part of the Specific Plan area. Therefore, consistent with the 2013 Specific Plan EIR, the proposed Specific Plan Update (under both development scenarios) would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires.

(Less than Significant Impact)

3.9.2.2 *Cumulative Impacts*

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

The 2013 Specific Plan EIR concluded that the buildout of the Specific Plan would not result in significant cumulative hazards and hazardous materials impacts because most of the industrial areas within the City which may be developed with industrial uses are located within the Specific Plan area and any new uses, storage, transport, and activities associated with remediation of contaminated sites would be subject to local, State, and federal regulation, and risks would be evaluated on a parcel-specific basis.

The Specific Plan area is not subject to wildland fires; therefore, the Specific Plan Update would not contribute to a cumulative wildland fire impact.

The geographic area for cumulative hazards and hazardous materials impacts is the Specific Plan area and the surrounding area because common sources of contamination (e.g., an underground plume) or hazards from a release of hazardous materials would be localized. The Specific Plan area and surrounding areas have similar history of former agricultural uses and potential contamination due to the use of hazardous materials by industrial uses. Existing regulations are in place to reduce

hazardous materials impacts to acceptable levels, preventing cumulative impacts. Future development projects within and outside of the Specific Plan area are subject to existing regulations, including the ones summarized in Section 3.9.1.1 Regulatory Framework, that ensure the safe storage, management, and disposal of hazardous materials. Future development projects are also subject to the City's development review process, which requires site-specific evaluation of impacts under CEQA. Development in adjacent jurisdictions, such as the City of Menlo Park, are subject to a similar development review process. Projects resulting in hazardous materials impacts would be mitigated to a less than significant level through compliance with existing regulations and implementation of project-specific measures (such as those identified in the Specific Plan Policies identified under Impact HAZ-2). For these reasons, the cumulative hazardous materials impact would be less than significant.

(Less than Significant Cumulative Impact)

3.10 Hydrology and Water Quality

3.10.1 Environmental Setting

3.10.1.1 *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 Environmental Protection Agency (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 Regional Water Quality Control Boards (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.⁶⁴

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 NOI must be filed with the RWQCB by the project sponsor, and a 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,

⁶⁴ San Francisco Regional Water Quality Control Board. “The 303(d) List of Impaired Water Bodies.” Accessed July 29, 2022. https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/TMDLs/303dlist.html.
Central Coast Regional Water Quality Control Board. “Central Coast Region – Clean Water Act Section 303(d) List of Water Quality Limited Segments (the 202(d) List).” Accessed July 29, 2022. https://www.waterboards.ca.gov/centralcoast/water_issues/programs/tmdl/303d_list.html.

for projects of certain risk levels, monitoring. The general purpose of the requirements is to minimize the discharge of pollutants and to protect beneficial uses and receiving waters from the adverse effects of construction-related storm water discharges.

Regional and Local

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.

City of East Palo Alto Groundwater Management Plan

In 2015, the City of East Palo Alto prepared a Groundwater Management Plan (GWMP) in compliance with the state's Sustainable Groundwater Management Act (SGMA), which mandates sustainable management of groundwater resources and provides expanded authority to local public water agencies which oversee groundwater sustainability.

The City of East Palo Alto developed the following goals for this GWMP:

- Provide the City of East Palo Alto with a long-term, reliable and affordable high quality supply
- Maintain or improve groundwater quality and quantity for the benefit of all groundwater users
- Provide integrated water resource management for resilience during droughts, with service interruptions and emergencies, and with long-term climate change effects.

City of East Palo Alto Green Infrastructure Plan

In June 2020, the City adopted a Green Infrastructure Plan. The purpose of the Plan is to guide the identification, implementation, tracking, and reporting of green infrastructure projects within the City of East Palo Alto in accordance with the requirements of MRP Order No. R2-2015-0049, adopted by the San Francisco Bay Regional Water Quality Control Board. The Plan is required by the MRP, in part, as an alternative to expanding the definition of Regulated Projects prescribed in Provision C.3.b to include all new and redevelopment projects that create or replace 5,000 square feet or more of impervious surface areas and road projects that just replace existing impervious surface area. Green infrastructure refers to stormwater infrastructure that uses vegetation, soils, and natural processes to manage water and create healthier urban environments.

Municipal Regional Permit Provision C.3

The San Francisco Bay RWQCB re-issued the Municipal Regional Stormwater NPDES Permit (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.⁶⁵ 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 be 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 65 percent or more impervious).⁶⁶

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 2030.⁶⁷ 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

⁶⁵ 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.

⁶⁶ 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.

⁶⁷ 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

be screened for the presence of PCBs prior to the issuance of a demolition permit. Single-family residential and wood frame structures are exempt.

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating hydrology and water quality impacts resulting from planned development within the City, including the following:

Policy	Description
<i>Infrastructure, Services, and Facilities</i>	
1.1	NPDES compliance. Ensure compliance with all NPDES requirements for litter control, dumping, pollutants of control, business operations, and new/re-development.
1.2	On-site stormwater management. Encourage development projects to manage stormwater on-site to reduce burdens on the City’s stormwater system. Whenever possible, stormwater should be infiltrated, evaporated, reused or treated on-site in other ways to improve stormwater quality and reduce flows into the storm drain system.
1.3	Stormwater infrastructure for new development. Require development projects to pay for their share of new stormwater infrastructure or improvements necessitated by that development.
1.4	Stormwater re-use and recycling. Encourage innovative ways of capturing and reusing stormwater for non-drinking purposes to reduce the use of potable water, including the creation of a recycled water system and installation of purple pipe in private and public projects.
1.5	Collaborative stormwater management. Encourage collaborative, integrated stormwater management between multiple property owners and sites.
1.8	Stormwater best practices. Encourage the use of best practices in stormwater treatment, retention, and quality and quantity control into flood control efforts, ensuring that flood control measures do not have negative ecological impacts on stormwater runoff.
1.9	Stormwater and flooding. Integrate stormwater management efforts with floor control efforts, seeking synergies and innovative strategies for stormwater treatment to reduce flood risks and volumes.
2.12	Groundwater recharge. Working with regional partners, explore options for groundwater recharge and prohibit new private groundwater wells.
2.13	Maximizing infiltration. Consider requiring all new development to provide roof catchment systems, irrigated landscaping, and permeable pavements (where feasible), or other means to enhance on-site infiltration of stormwater runoff or landscape irrigation water.
<i>Safety and Noise</i>	
2.2	Flood related to sea level rise. Consider expanding boundaries of development control particularly where sea level rise could worsen flooding above predicted conditions.

Policy	Description
2.3	Development in floodways. Continue to control development in the floodway and floodway fringe.
2.4	Floodplain Management Ordinance. Continue to enforce and consider strengthening the City's Floodplain Management Ordinance.

3.10.1.2 Existing Conditions

Water Quality

The water quality of streams, creeks, ponds, and other surface water bodies (such as the San Francisco Bay) can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from dispersed or areawide sources, known as non-point 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, which in the case of the Specific Plan, drains into the San Francisquito Creek Watershed and the Bay.

Groundwater

The Specific Plan area is located within the San Mateo Plain Subbasin and the San Francisquito Cone Subbasin (Santa Clara Valley Groundwater Basin). Geological conditions in the groundwater recharge areas allow precipitation, stream flow, and water diverted into percolation areas to recharge the deeper aquifers. The Specific Plan area is not located in a designated recharge area. The nearest recharge area is located southwest of the Plan area, immediately to the north and south of U.S. 101 for the eastern section of the recharge area, and to the south of U.S. 101 for the western section of the recharge area. Historical groundwater levels vary from zero to 10 feet below the existing grade in the Specific Plan area.⁶⁸ Groundwater levels can be influenced by tidal changes, precipitation changes, perched zones, changes in drainage patterns, and irrigation. Some of the Specific Plan areas, particularly those adjacent to the San Francisco Bay, the groundwater may be brackish due to the proximity of San Francisco Bay.

Storm Drainage System

The East Palo Alto storm drain system is comprised of several different watersheds that primarily gravity discharge to San Francisco Bay. Stormwater in East Palo Alto drains into two major drainage systems: the Runnymede Storm Drain System and the O'Connor Storm Drain System. Many of the

⁶⁸ City of East Palo Alto. *Ravenswood/4 Corners TOD Specific Plan EIR*. SCH #2011052006. January 16, 2012. Page 4.6-8.

streets in the Plan Area do not have storm drains, and those that do are unable to handle stormwater during peak events.

The Specific Plan area is primarily served by storm drain systems that convey flow to O'Connor Pump Station during periods of high tide when gravity outfalls are not active. The O'Connor Pump Station receives stormwater from throughout the City and an at-grade canal, which runs along the eastern city limit. The O'Connor Pump Station distributes stormwater outfall into San Francisquito Creek.

The northern portion of the Specific Plan area (approximately areas north of Bay Road) is comprised of other watersheds that discharge directly to San Francisco Bay and are not currently connected to the O'Connor Pump Station.

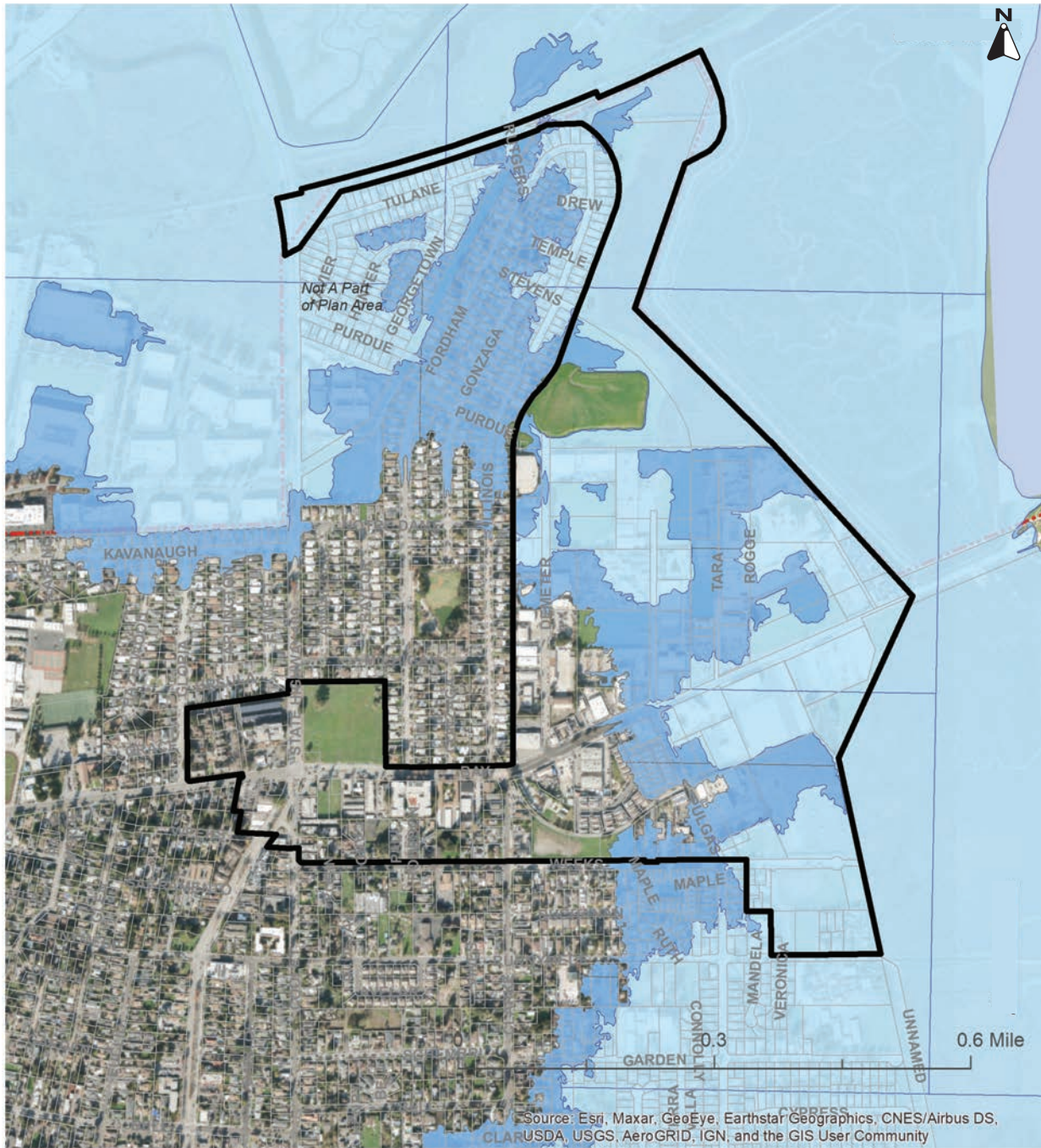
The Storm Drain Master Plan (SDMP) capital improvement program concept eliminates individual local gravity outfalls and conveys storm water south to the existing O'Connor Pump Station, thereby eliminating the influence of San Francisco Bay tides on the storm drain system.

Flooding and Other Inundation Hazards

Flood Hazards

The primary hydrologic source affecting the Ravenswood Specific Plan area is the San Francisco Bay, located approximately 1,000 feet east of the project site. The Ravenswood Open Space Preserve, adjacent to the project site, provides some separation between the Specific Plan area and the Bay. The Specific Plan area is relatively flat with low elevations. Much of the northern, central, and eastern portions of the Specific Plan area are within Zone A or Zone X (refer to Figure 3.10-1 for the FEMA flood designations).⁶⁹ Zone A is defined as an area with a one percent (100-year) annual chance of flooding. Zone X is an area of lesser hazard, determined to be outside of the 100-year flood zone and defined as a 0.2 percent (500-year) annual chance of flooding. Future sea level rise is expected to increase the risk of flooding and the areas of risk, and is discussed below in Section 3.10.3 Non-CEQA Effects.

⁶⁹ Federal Emergency Management Agency. Flood Insurance Rate Map. Map Number 06081C0307F. April 5, 2019.



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, CLARUSDA, USGS, AeroGRID, IGN, and the GIS User Community

- Final Specific Plan Boundary
- 1% Annual Chance
- 0.2% Annual Chance

FEMA FLOOD HAZARD AREA

FIGURE 3.10-1

Tsunami and Seiche Zones

San Mateo County has mapped areas susceptible to flooding due to tsunami and seiche inundation zones. The Tsunami and Dam Inundation Zones map in the General Plan and Figure 3.10-2 of this Draft SEIR shows that the northern portion of the Specific Plan area is located within a Tsunami and Seiche Inundation zone.⁷⁰

Flooding due to Dam Failure

San Mateo County has mapped areas susceptible to flooding due to dam failure. The Tsunami and Dam Inundation Zones map in the General Plan shows that the project site is not located within the Searsville, Felt Lake, or Lagunita Dam Inundation Zones.⁷¹

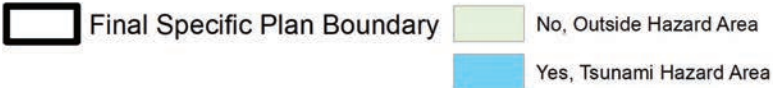
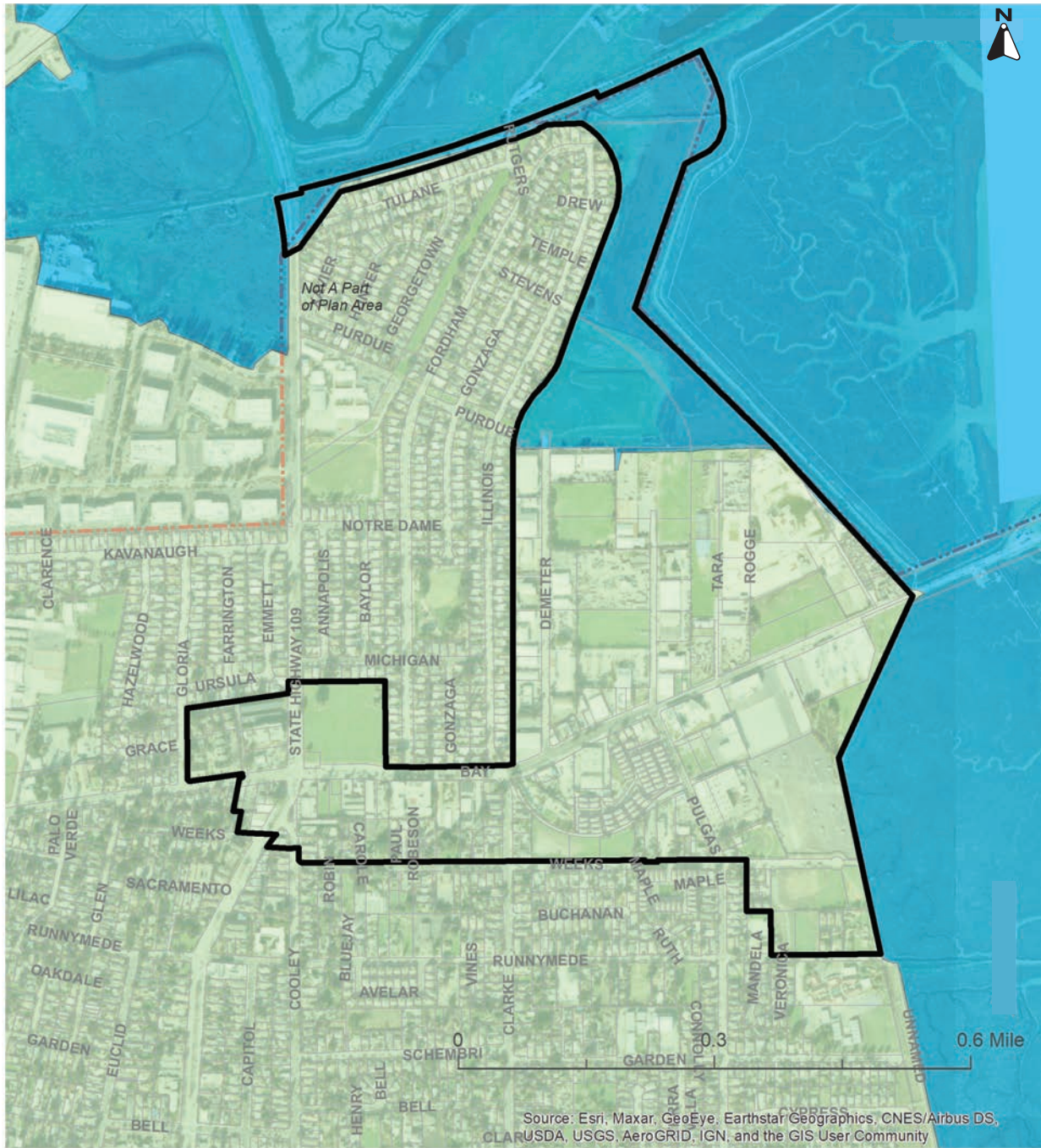
3.10.2 Impact Discussion

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

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

⁷⁰ City of East Palo Alto. *Vista 2035 East Palo Alto General Plan*. October 2016. Page 10-4.

⁷¹ *Ibid.*



TSUNAMI HAZARD AREA

FIGURE 3.10-2

3.10.2.1 *Project Impacts*

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

The 2013 Specific Plan EIR determined that compliance with the NPDES Construction General Permit and MRP would ensure future project construction and post-construction runoff would not result in substantial sources of polluted runoff and impacts would be less than significant.

Implementation of the Specific Plan Update (under either development scenario, including the multi-use path, with or without the loop road) could impact water quality during the construction process and post-construction of future development. Future excavation and grading of sites within the Specific Plan area could result in sediment and other pollutants being transported from active construction sites to nearby waterways and San Francisco Bay through soil erosion, stormwater runoff, and/or wind-blown dust. To reduce water quality impacts during construction, future development projects that would disturb one acre or more of soil are required to comply with the statewide NPDES Construction General Permit to reduce runoff and pollution in runoff from construction activities, including preparation of a NOI and SWPPP, and implementation of stormwater control BMPs. In the event contaminated groundwater is encountered during future construction activities, the SWPPP would also include provisions for proper management of dewater effluent and would ensure proper disposal.

Scenarios 1 and 2, with the loop road, may result in more impacts to water quality, as vehicles traveling on the loop road may release gasoline, oil, antifreeze, and other contaminants, resulting in more contaminated stormwater runoff. Under Scenario 2, more vehicles would travel on the loop road, potentially resulting in more contaminated stormwater runoff. To reduce water quality impacts post-construction, future development, including the loop road, which disturbs more than 5,000 square feet are required to comply with the MRP (including Provision C.3) and General Plan Policies 1.1 through 1.5, 1.8, and 1.9, regarding LID site design. LID features for future development could include self-treating and self-retaining areas to allow on-site retention, percolation, and evaporation of stormwater runoff.

In summary, future Specific Plan development in compliance with existing regulations including the MRP, Construction General Permit, and General Plan Policies 1.1 through 1.5, 1.8, and 1.9, would not result in significant water quality impacts during or post-construction. This is the same impact as previously disclosed in the 2013 Specific Plan EIR.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR determined that buildout of the Specific Plan may require additional pumping of groundwater during droughts and a second groundwater well to be built. While this would increase the pumping of groundwater, 2013 Specific Plan Policy UTIL-2.2 (listed below) states that before individual development projects are approved in the Specific Plan area, the developer must demonstrate verifiable, enforceable proof that either they have secured new water supplies to serve the new development or that the proposed development will create no net increase in total water demand in East Palo Alto. It also requires that environmental review is carried out for augmentations to the supply from additional groundwater pumping in the Specific Plan area and within a quarter mile radius. In addition, implementation of the Specific Plan would increase impervious surfaces compared to existing conditions; however, Specific Plan Policy LU-9.1 requires new development to minimize the area of impervious surfaces connected to the storm sewer system and thereby maximize the amount of area available for groundwater recharge. For these reasons, the 2013 Specific Plan EIR concluded that the Specific Plan would have a less than significant impact on groundwater supplies.

2013 Specific Plan Update Policy UTIL-2.2:

- Before individual development projects are approved in the Plan Area, require the developer to demonstrate verifiable, enforceable proof that either they have secured new water supplies to serve the new development or that the proposed development will create no net increase in total water demand in East Palo Alto. Ensure that environmental review is carried out for augmentations to the supply from additional groundwater pumping in the Specific Plan area and within a quarter mile radius.

2013 Specific Plan Update Policy LU-9.1:

- Ensure that new development in the Specific Plan area maximizes the amount of area available for groundwater recharge by requiring features such as roof catchment systems, irrigated landscaping, and permeable pavements (where feasible), or other means to enhance on-site infiltration of stormwater runoff or landscape irrigation water. Ensure all applicable projects under the Specific Plan comply with Provision C.3 of the Regional Municipal NPDES Permit and incorporate Low Impact Development measures to ensure that runoff is not increased.

The Specific Plan Update buildout (under both development scenarios, with and without the loop road) would result in additional development compared to the adopted Specific Plan (see Table) and, as a result, increase overall water demand (refer to Section 3.18.2). While the Specific Plan Update could increase overall groundwater pumping, future development would be required to

comply with Specific Plan Update Policy UTIL-1.7 below, which would reduce groundwater supply impacts to a less than significant level.

Specific Plan Update Policy UTIL-1.7:

- Before individual development projects are approved in the Plan Area, require the developer to demonstrate verifiable, enforceable proof that either they have secured new water supplies to serve the new development or that the proposed development will create no net increase in total water demand in East Palo Alto. Ensure that environmental review is carried out for augmentations to the supply from additional groundwater pumping in the Specific Plan area and within a quarter mile radius.

If proposed development includes below-grade levels or if the depth of excavation extends below groundwater levels, temporary dewatering during construction may be necessary. Based upon site-specific exploration and design, permanent dewatering may also be needed on below-grade structures.

While the proposed project (under either development scenario, with the loop road or multi-use trail) would result in additional development compared to the adopted 2013 Specific Plan, the project would increase density within the current Specific Plan area rather than expand the area where development is allowed. As such, the proposed project would result in a similar increase in impervious surfaces compared to the adopted 2013 Specific Plan. Future development would be required to comply with the MRP, Specific Plan Update Policy UTIL-3.4, and Specific Plan Update Standards 6.8.2.1 and 9.5.2.1 below, which require projects to enhance on-site filtration of runoff and install LID measures. Compliance with these policies would reduce groundwater recharge impacts to a less than significant level.

Proposed Specific Plan Update Policy:

- **Policy UTIL-3.4:** Ensure that new development in the Specific Plan area maximizes the amount of area available for groundwater recharge by complying with the City's Water Conservation and Landscaping Ordinance and maximizing use of features such as permeable paving, roof catchment systems, irrigated landscaping, or other means to enhance on-site infiltration of runoff or landscape irrigation water.

Proposed Specific Plan Update Stormwater and Low Impact Development Standards:

- **6.8.2.1. Permit Requirements:** Projects shall meet the Municipal Regional Permit Requirements per NPDES Permit Number CA5612008.
- **9.5.2.1. NPDES Permit Requirements.** Development projects shall follow the standards contained within the relevant NPDES permit for hydromodification, limitations in run-off volume compared to pre-project conditions, and Low Impact Development (LID) requirements. All development projects shall be subject to restrictions in site runoff flow rate (pre-development versus post-development).

Consistent with the 2013 Specific Plan EIR conclusions, future development under the Specific Plan Update would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR determined that implementation of the Specific Plan would increase impervious surfaces and contribute to existing flooding issues in the Specific Plan area due to inadequate stormwater infrastructure (see Section 3.18 Utilities and Service Systems for discussion on stormwater infrastructure). However, with implementation of proposed Specific Plan Update Policies UTIL-1.1 and UTIL-1.6 (listed below) requiring upgrades to the stormwater infrastructure, the 2013 Specific Plan EIR concluded that future development would not substantially alter the existing drainage pattern or increase flooding on-site.

Proposed Specific Plan Policy UTIL-1.1:

- Ensure that development projects construct on-site components of the water, sewer, and storm drain utility systems as described below in Tables 9.4, 9.5, and 9.6 of the Specific Plan Update (and in Appendix G Utility Impact Study). As appropriate, identify the responsibility of developers for constructing off-site improvements, confirm these off-site improvements with the City Engineer and document them in Development Agreements and/or Conditions of Approval.

Proposed Specific Plan Policy UTIL-1.6:

- Ensure that the future storm water system in the Plan Area is designed and built to provide adequate capacity for peak rain events, including both the southern and northern parts of the Plan Area, as well as the University Village neighborhood.

Implementation of the Specific Plan Update (under either development scenario) would increase impervious surface area compared to existing conditions. The existing stormwater infrastructure system in the Specific Plan area is inadequate to convey stormwater flows of the proposed project (see Section 3.18 Utilities and Service Systems for additional information), which could lead to additional flooding. The project (under both development scenarios), however, would be required to comply with the proposed Specific Plan Update Policies UTIL-1.6 which requires the City to

design and implement stormwater infrastructure systems in the northern and southern portions of the Specific Plan area to adequately convey peak rain events. These stormwater improvements would be subject to environmental review once designs are proposed and funded. In addition, the Specific Plan Update would add 30.5 acres of open space area and landscaping (i.e., pervious surfaces) associated with future development that would be utilized for infiltration of runoff consistent with MRP requirements.

Based on the San Mateo County Water Pollution Prevention Program Hydromodification Management Applicability Map, the Specific Plan area is located in an area where catchments drain to hardened channels and tidally influenced areas. Based on the San Mateo County Water Pollution Prevention Program's for hydromodification management applicability standards, the Specific Plan area is not subject to hydromodification management requirements as it is not located in an area where hydromodification is likely to cause increased erosion, silt pollutant generation, or other impacts to local rivers, streams, and creeks. In addition, future development projects would reduce water quality, siltation, and soil erosion impacts by compliance with applicable regulations including the MRP and Construction General Permit.

In addition, future development projects and the multi-use path and loop road would comply with the following Specific Plan Update standards to reduce impacts to the City's drainage system.

Proposed Specific Plan Update Policies

- Policy UTIL-1.1: Ensure that development projects construct on-site components of the water, sewer, and storm drain utility systems as described below in Tables 9.4, 9.5, and 9.6 (and in the RBD Utility Impact Study). As appropriate, negotiate the construction (and/or funding) of off-site improvements with the City Engineer and document them in Development Agreements and/or Conditions of Approval.

Proposed Specific Plan Update General Utility Standards

- **9.2.2 Fairshare improvements.** Development projects shall construct - or where infeasible, fund - the required proportion of the water, sewer, and storm drainage improvements which are identified in the Nexus Study as the 'fair share responsibility' of the applicant's project. The specific allocation to each project for capital improvement contributions will be established through individual Development Agreements or through a subsequent nexus study. In either case, there will be a clear proportionality or 'nexus' between the required improvements and each project's impacts (such as LOS delay impacts or percentage of added daily trips).

Proposed Specific Plan Update Storm Drainage Standards

- C.3 Permit. New development shall conform to C-3 Municipal Permit stormwater regulations as required by City and County law.

- Runoff limitations. Development projects shall follow the standards contained within the relevant NPDES permit for hydromodification including run-off volume compared to pre-project conditions standards and LID requirements.]
- Future conditions design. New developments shall build stormwater infrastructure designed to function under Future Conditions as identified in the Plan and UIS, following a Modified Storm Drainage Master Plan (SDMP) Alternative 2 design, as detailed in Table 9-4.
- Avoid adjacent flooding. New developments shall ensure that proposed site topography and connection to the City's storm drain system does not cause new or additional flooding to City streets and other properties. The City Engineer shall have final determination over the direction/flow of drainage. See Figure 9-5 for Mass Grading Plan.
- Design storm condition. The City Engineer shall have final determination of the design storm condition required to be used by applicants. At time of adoption, the standard is a 10-year storm condition.

The Specific Plan Update Scenarios 1 and 2 with the loop road, may result in more runoff than the scenarios without the loop road given they would include additional impervious surfaces. However, future developments under all scenarios would be subject to the same requirements above. For these reasons, the future development (under the Specific Plan Update Scenarios 1 and 2), in compliance with the Specific Plan Update Policies and Standards, and existing regulations would not result in substantial erosion, siltation, or flooding on- or off-site; exceed the capacity of the existing storm drain system; or provide substantial additional sources of polluted runoff or impede or redirect flood flows compared to existing conditions.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR determined that compliance with Specific Plan Policies LU-9.2 and LU-9.3 would reduce flooding impacts to a less than significant level. At the time the 2013 EIR was prepared, the CEQA Guidelines included addressing the effects of placing people and housing in a 100-year flood hazard area. Since 2019, the Guidelines were updated to address impacts related to the risk of release of pollutants due to inundation. The multi-use path and the loop road would not require the use or storage of chemicals. Therefore, these path and road would not result in the risk of pollutants in an inundation zone.

As discussed in Section 3.10.1.2 above, much of the northwestern portion of the Specific Plan area is within Zone A or Zone X, (see Figure 3.10-1) and portions are located within a tsunami and seiche zone. Existing and future development under the Specific Plan Update may use, store, and generate hazardous materials; however, as stated in Section 3.9.2, under Impact HAZ-1, hazardous materials would be contained and stored properly on-site pursuant to existing federal, state, and local laws, regulations, and programs, including the RCRA, TSCA, and CFR 49.

R&D and industrial land uses under the Specific Plan Update (Scenarios 1 and 2) could use and store hazardous chemicals. Within the Specific Plan area, there are proposed R&D/lab and industrial uses in the 100-year flood zone located within the Plan area. These uses are also located in the approved 2013 Specific Plan within the 100-year flood zone. The Specific Plan Update Scenario 2 could require the storage of more chemicals given there would be more R&D/lab development (1.2 million square feet of lab space for Scenario 2 and 988,400 square feet of R&D/lab development for Scenario 1) and industrial development (300,000 square feet for Scenario 2 and 250,000 for Scenario 1) allowed for Scenario 2. However, Scenarios 1 and 2 would be subject to the same regulations for chemical storage to ensure their proper use and storage to minimize the risk of release during flooding. For these reasons, the Specific Plan Update would not substantially increase the risk of release of pollutants due to inundation.

(Less than Significant Impact)

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

The 2013 Specific Plan EIR determined that compliance with Specific Plan Policies LU-9.2 and LU-9.3 would reduce flooding impacts to a less than significant level. At the time the 2013 EIR was prepared, the CEQA Guidelines included addressing the effects of placing people and housing in a 100-year flood hazard area. Since 2019, the Guidelines were updated to address impacts related to the risk release of pollutants due to inundation. The multi-use path and the loop road would not require the use or storage of chemicals. Therefore, the path and road would not result in the risk of pollutants in an inundation zone.

As discussed in Section 3.10.1.2 above, much of the northwestern portion of the Specific Plan area is within Zone A or Zone X, (see Figure 3.10-1) and portions are located within a tsunami and seiche zone. Existing and future development under the Specific Plan Update may use, store, and generate hazardous materials; however, as stated in Section 3.9.2, under Impact HAZ-1, hazardous materials would be contained and stored properly on-site pursuant to existing federal, state, and local laws, regulations, and programs, including the RCRA, TSCA, and CFR 49.

R&D and industrial land uses under the Specific Plan Update (Scenarios 1 and 2) could use and store hazardous chemicals. Within the Specific Plan area, there are proposed R&D/lab and industrial uses in the 100-year flood zone located within the Plan area. These uses are also located in the approved 2013 Specific Plan within the 100-year flood zone. The Specific Plan Update Scenario 2 could require the storage of more chemicals given there would be more R&D/lab development (1.2 million square feet of lab space for Scenario 2 and 988,400 square feet of R&D/lab development for Scenario 1) and industrial development (300,000 square feet for Scenario 2 and 250,000 for Scenario 1) allowed for Scenario 2.

However, Scenarios 1 and 2 would be subject to the same regulations for chemical storage to ensure their proper use and storage to minimize the risk of release during flooding. For these reasons, the Specific Plan Update would not substantially increase the risk of release of pollutants due to inundation.

(Less than Significant Impact)

3.10.2.2 *Cumulative Impacts*

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

The 2013 Specific Plan EIR concluded that development under the 2013 Specific Plan would have less than significant cumulative hydrology and water quality impacts. The 2013 Specific Plan EIR concluded that each of the individual projects in the Specific Plan area would require environmental review and a flood study that includes a section requiring analysis of cumulative impacts.

The geographic area for cumulative hydrology and water quality impacts are the boundaries of San Francisquito Creek Watershed since the effects of future Specific Plan Update projects on hydrology and water quality would be limited to the watershed in which they are located.

Water Quality Standards and Discharge Requirements

All cumulative projects are required to adhere to state and local regulations, in accordance with the MRP (as identified under Impact HYD-1), to comply with water quality standards and waste discharge requirements, thereby resulting in less than significant impacts to surface or groundwater quality. These regulations are in place to ensure individual projects would not result in a significant cumulative impact. For these reasons, the cumulative projects (including the Specific Plan Update) would not result in a significant cumulative impact to water quality.

Groundwater Supplies and Recharge

The impact of cumulative projects within the San Francisquito Creek Watershed on groundwater supplies and recharge is contingent on the condition of its associated groundwater basin, its water demand, project-specific information (e.g., any permanent dewatering requirements), and effects on recharge facilities. All cumulative projects within these watersheds would be required to comply with state regulations (including those identified in Section 3.10.1.1 Regulatory Framework) protecting groundwater resources.

As discussed in detail in Section 3.19 Utilities and Service Systems, existing water supplies are available to meet the demand of the Specific Plan buildout in addition to existing and projected demand during normal, dry, and multiple dry years. In single dry, and multiple dry years, the City would implement water shortage contingency plans as necessary to conserve water and meet the anticipated demands. Future Specific Plan Update development would not impact recharge facilities

based on the City's Groundwater Management Plan, would be consistent with Specific Plan Update Policies to reduce impacts on groundwater supplies. For these reasons, the implementation of the Specific Plan would not result in a cumulatively considerable decrease in groundwater supplies or interfere substantially with groundwater recharge such that the implementation of the Specific Plan Update would impede sustainable groundwater management of the basin.

Alteration of Existing Drainage Patterns

Cumulative projects are required to adhere to existing regulations (including the Construction General Permit and Provision C.3) to manage stormwater runoff and erosion and reduce impacts to a less than significant level. These regulations are in place to ensure individual projects do not result in a significant cumulative impact. As discussed under Impact HYD-3, future projects would comply with existing regulations to reduce the impacts to drainage systems. In addition, implementation of the Specific Plan Update would not contribute to erosion or silt pollutant impacts on local rivers, streams, and creeks due to hydromodification given it is not located in an area subject to the San Mateo County Water Pollution Prevention Program's hydromodification requirements. For these reasons, the cumulative projects would not result in a significant cumulative impact regarding on- or off-site erosion or flooding.

(Less than Significant Cumulative Impact)

Risk of Pollutant Release from Inundation

Cumulative projects within a special flood hazard area and tsunami inundation area (such as portions of the Specific Plan Update) would properly contain, store, and manage hazardous materials in accordance with existing laws and regulations (refer to Section 3.9 Hazards and Hazardous Materials, Impact HAZ-1). Therefore, the risk of release of chemicals/pollutants due to inundation by cumulative projects would be less than significant. **(Less than Significant Cumulative Impact)**

Consistency with Water Quality Control and Sustainable Groundwater Management Plans

All cumulative projects would be required to adhere to existing regulations to ensure compliance with water quality control plans and the City's GWMP. The plans are in place to ensure individual projects do not result in a cumulative impact to water quality or groundwater management. As discussed under Impact HYD-5, the future development would be consistent with the Basin Plan by complying with existing water quality control regulations including the MRP and Construction General Permit, and not conflict with the GWMP. For these reasons, the implementation of the Specific Plan Update would not result in a cumulatively considerable contribution to a significant cumulative impact on water quality or groundwater management.

(Less than Significant Cumulative Impact)

3.11 Land Use and Planning

3.11.1 Environmental Setting

3.11.1.1 *Regulatory Framework*

Regional

Palo Alto Airport – Comprehensive Land Use Plan

A portion of the southeast area of the Specific Plan lies within the boundaries of the Palo Alto Airport Comprehensive Land Use Plan (CLUP), a Plan adopted by the Santa Clara County Airport Land Use Commission, intended to safeguard the general welfare of the inhabitants within the vicinity of the airport, as well as aircraft occupants. The CLUP is intended to ensure that surrounding new land uses do not affect airfield operations. The CLUP establishes an airport land use planning area, referred to as the Airport Influence Area (AIA), which sets the boundaries for application of the CLUP. Development proposals within the AIA are required to be reviewed by the Airport Land Use Commission (ALUC).

The CLUP focuses on the three areas of ALUC’s responsibility: (1) aircraft noise, (2) the safety of persons on the ground and in aircraft, and (3) the control of objects in navigable airspace. The compatibility of land uses in the vicinity of the Airfield are evaluated for each of the potential land use impact categories in terms of the compatibility policies established for each category of concern.

The objective of CLUP safety compatibility criteria is to minimize the risks associated with potential aircraft accidents. These include the safety of people on the ground and the safety of aircraft occupants. The CLUP has safety restriction areas categorized in six safety restriction zones to minimize the number of people exposed to potential aircraft accidents in the vicinity of the Airfield by imposing density and use limitations within these zones. These zones include the (1) Runway Protection Zone, (2) Inner Safety Zone, (3) Turning Safety Zone, (4) Outer Safety Zone, (5) Sideline Safety Zone, and (6) Traffic Pattern Zone.

Local

Local land use is governed by the City’s General Plan, which in turn provides the basis for the City’s Zoning Ordinance, specific plans, and design guidelines. The current General Plan and the City’s Zoning Ordinance are described below.

Vista 2035 East Palo General Plan

The City’s General Plan represents the East Palo Alto Community’s statement of its core values and vision for its future. The current General Plan was adopted by the City Council in October 2016 and

provides the City with a guide for future land use decisions within the City. The General Plan divides the City into land use districts, which specify the type of development that could occur throughout the City that would be consistent with the City’s values and vision.

General Plan Policies

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating land use impacts resulting from planned development within the City including the following:

Policy	Description
<i>Land Use and Urban Design</i>	
1.1	Balanced land uses. Create a balanced land use pattern to support a jobs-housing balance, minimize traffic and vehicle miles traveled, reduce greenhouse gas emissions, and promote a broad range of housing choices, retail businesses, employment opportunities, cultural venues, educational institutions and other supportive land uses.
1.3	Coherent pattern of land uses. Ensure that new development occurs in a unified and coherent pattern that avoids conflicts between uses and promotes job creation and fiscal stability, creating a high-quality environment for East Palo Alto residents.
8.1	Gateways. Enhance the image of the community by creating high quality, artistic structural elements that provide city-wide consistency, substantially improving the appearances of entrances to the city along University Avenue, Bay Road, and Newbridge Street.
8.2	High quality construction and architecture. Require high-quality and long-lasting building materials on all new development projects in the City. Encourage innovation and quality architecture for new public and private projects.
9.1	Pedestrian Focus. Design the streetscape of high-volume corridors, including University Avenue, East Bayshore Road, and Pulgas Avenue, to balance regional traffic flow with pedestrian movement and safety and the unique physical environment of the area.
9.2	Parking frontages. Continue to implement parking strategies and standards that ensure parking areas do not dominate street frontages and are screened from public views whenever possible.
9.4	Lighting. Strive for all new gateway features in commercial areas to be pedestrian oriented, attractively designed, compatible in design with other street furniture, and to provide adequate visibility and security.
<i>Economic Development</i>	
1.1	Balance costs and revenues. Promote land use composition and development phasing in East Palo Alto that provides a jobs-housing balance or surplus between the generation of public revenues and the cost of providing public facilities/services.
1.2	Industrial development. Work with property owners and developers to encourage office, research and development and industrial development projects at strategic opportunity sites within the city, particularly within the Ravenswood TOD Specific Plan.

Policy	Description
1.3	Attraction of revenue-generating businesses. Target economic development efforts toward attracting sales and use tax-generating businesses to vacant and new developments, including retail stores/services and office/industrial-based businesses.
1.9	Office and R&D businesses. Promote growth of office and R&D businesses that contribute property and sales tax revenues to the City, particularly at the University Avenue and Highway 101 interchange and within the Ravenswood TOD Specific Plan.
3.3	Supporting infrastructure and public services. Require new development projects to provide supporting infrastructure and public services that contribute to the overall improvement in quality of life in the City.

Palo Alto Airport Long Range Facilities and Sustainability Plan

In May 2023, the City of Palo Alto began the preparation of the Long-Range Facility and Sustainability Plan (LRFSP) for the Palo Alto Airport. The LRFSP will be a guide for the Airport’s improvements over the next 20 years with a focus on sustainability. The goal of the LRFSP is to determine the extent, type, and schedule of improvements needed to accommodate existing and predicted future needs at the Airport in a sustainable manner. The City is in the process of holding community/public outreach meetings to encourage input on the content of the LRFSP.

City of East Palo Alto Zoning Ordinance

As a long-range planning document, the General Plan outlines long-term visions, policies, and actions designed to shape future development within East Palo Alto. The Zoning Ordinance serves as an implementing tool for the General Plan by establishing detailed, parcel-specific development regulations and standards in each area of the City. Although the two are distinct documents, the General Plan and Zoning Ordinance are closely related, and State law mandates that zoning regulations be consistent with the General plan maps and policies.

3.11.1.2 *Existing Conditions*

The Specific Plan area includes a mix of office, R&D, industrial, civic/community retail, residential, and open space uses. The Plan area is surrounded by residential, office, and R&D uses to the west, residential uses to the south, the Ravenswood Open Space Preserve to the west, and railroad tracks and wetland areas to the north.

The existing City General Plan land use designations for the Specific Plan area are Office, General Industrial, Mixed Use High, 4 Corners, Medium Density Residential, Industrial Buffer, Waterfront Office, and Parks/Recreation/Conservation. These designations allow for office/R&D, medium-to high-density residential, open space, mixed-use, and industrial uses.

The existing zoning districts for the Specific Plan area consists of Ravenswood Employment Center (accommodates R&D uses), Industrial Transition (accommodates light industrial uses), Waterfront

Office (which accommodates office uses), Bay Road Central (which accommodates multi-story mixed-use buildings with retail and storefront-type offices), 4 Corners (accommodates mixed buildings with retail stores or community facilities on the ground floor), Urban Residential, Ravenswood Open Space, and Ravenswood Flex Overlay (which accommodates office uses along with limited manufacturing and repair businesses).

3.11.2 Impact Discussion

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

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

3.11.2.1 *Project Impacts*

- a) Would the project physically divide an established community?
-

The 2013 Specific Plan EIR determined that the adopted Specific Plan would not physically divide an established community.

The implementation of the Specific Plan Update would allow for the addition of up to 3.3 million square feet of office/R&D space, 300,000 square feet of industrial space, 112,400, 129,700 square feet, 53,500 square feet of tenant amenity space, and 1,600 residential units (which represents development scenario #2, the most intensive development scenario, see Table 2.3-1) and overall intensification of development within the Specific Plan area (refer to Section 2.3.1 for the proposed land use zones). The Specific Plan Update Scenarios 1 and 2 are proposing the same land use types as the 2013 Specific Plan, except the Specific Plan Update would include more overlay zones that allow for more residential uses in locations than are designated for residential uses in the 2013 Specific Plan (refer to Figure 2.3-1). The Specific Plan Update would include a multi-use path and could include a loop road which would be located along the perimeter of the northern portion of University Village (immediately to the west of the Specific Plan area) and extend from the existing terminus of Demeter Street to connect with University Avenue. The loop road and multi-use trail would be located along the northern and eastern perimeter of the Specific Plan area, and would not physically divide a community.

A new street network, shown on Figure 2.3-4, is proposed as part of the Specific Plan Update that would facilitate multimodal transportation use, and the project would improve connectivity between the Specific Plan area and adjacent communities by establishing complete streets; transit, bicycle, and pedestrian improvements; and accessible parks and recreational uses. Furthermore, the Specific Plan Update does not include the provision of dividing infrastructure such as highways

or railways that could be expected to physically divide existing, adjacent communities. For these reasons, the Specific Plan Update would improve connectivity between the Specific Plan area and adjacent communities and would not physically divide an existing community.

(No Impact)

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

The 2013 Specific Plan EIR determined that the Specific Plan would not conflict with any land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

General Plan

The Specific Plan Update (under either development scenario) would increase non-residential development square footage on parcels within the Specific Plan area that currently allow such non-residential land uses and expand the number of parcels where residential land uses are allowed. As such, the proposed project would not increase the footprint of allowed development within the Specific Plan area. The proposed project would include amendments to the General Plan and Zoning Ordinance to allow for the increased density of residential uses and intensity of non-residential uses within the Plan area; however, these would be consistent with General Plan policies ED-1.1, 1.2, and 1.3, and LU-1.1, 1.2, 1.3, and 2.3, which call for increased development of non-residential uses and improving the jobs-housing balance within the City. For these reasons, the project (under either development scenario) would not conflict with the General Plan. **(Less than Significant Impact)**

Palo Alto Airport – Comprehensive Land Use Plan

As discussed under Impact HAZ-5 in Section 3.9 Hazards and Hazardous Materials, future development allowed under the Specific Plan Update (under both development scenarios) would occur within the same area as analyzed in the 2013 Specific Plan EIR, with the exception of the University Village neighborhood and Cooley Landing Park which are no longer considered a part of the Specific Plan area. Therefore, consistent with the 2013 Specific Plan, although a portion of the Specific Plan area would be located within an airport land use plan area, implementation of the proposed Specific Plan Update (under both development scenarios) would not result in a safety hazard (as discussed in Section 3.9 Hazards and Hazardous Materials) or excessive noise from people residing or working in the project area (as discussed in Section 3.12 Noise and Vibration). **(Less than Significant Impact)**

San Francisco Bay Area Conservation and Development Commission

The Specific Plan area is not within a priority use area under jurisdiction of the BCDC; however, small portions along the Bay shoreline in the northern and western portions of the Specific Plan

area may be subject to BCDC jurisdiction, i.e. within the 100-foot shoreline band. Future development within these areas would be reviewed and approved by BCDC for consistency with the McAteer-Petris Act and the Bay Plan. Future projects under the Specific Plan Update would also implement Specific Plan Update Policy LU-6.4 (listed below), which ensures that geotechnical reports for each future development take into account flood risks and potential impacts on surrounding buildings.

Specific Plan Update Policy LU-6.4 (which is the same as 2013 Specific Plan Policy LU-9.3) ensures that geotechnical reports for each future development take into account flood risks and potential impacts on surrounding buildings.

- **Specific Plan Update Policy LU-6.4:** Require preparation of a geotechnical report calculating the building load and placement of fill for each development. Verify that environmental review of this report includes an assessment of flood risks to the building itself and the impacts on neighboring structures from displacement of flood waters. Require the report to consider the cumulative flood risks to other structures from the building in addition to other known, planned, and reasonably foreseeable development.

As discussed above, the proposed project (under either development scenario, with or without the loop road) would occur within the same area as analyzed in the 2013 Specific Plan EIR; therefore, with implementation Specific Plan Update Policy 6.4, the Specific Plan Update (under either development scenario) would result in the same less than significant impact as identified in the 2013 Specific Plan EIR.

(Less than Significant Impact)

3.11.2.2 *Cumulative Impacts*

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

The geographic area for cumulative land use and planning impacts is the City boundaries, as the City plans for land use comprehensively and citywide.

The 2013 Specific Plan EIR concluded cumulative development within the Specific Plan area would be subject to development standards and that implementation of cumulative development within the Plan area in accordance with the General Plan and 2013 Specific Plan would not result in cumulative impacts. The 2013 Specific Plan EIR also concluded the cumulative development outside the Specific Plan area could result in incompatible land use such as air quality, greenhouse gas emissions, and noise discussed in the respective EIR chapters.

Future development projects within and outside the Specific Plan area, would:

- Be a planned development that would not result in the physical division of established communities;
- Comply with General Plan goals and policies that require appropriate buffers, edges, and transition areas between land uses, minimizing land use compatibility issues that might result in physical environmental impacts;
- Comply with BCDC jurisdiction requirements and analyze potential flood risks; and
- Not conflict with the Palo Alto CLUP and result in any safety or noise impact.

For these reasons, implementation of the Specific Plan Update (under either development scenario, with and without the loop road) would not result in a new or substantially more severe significant cumulative land use and planning impact than disclosed in the 2013 Specific Plan EIR.

(Less than Significant Cumulative Impact)

3.11.3 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 a project or Specific Plan are not considered CEQA impacts. The following discussion on sea-level rise is included for informational purposes only.

Sea level rise results from climate change caused by global increases in greenhouse gas emissions. The increased temperatures cause sea level rise through thermal expansion of the oceans and melting of ice sheets. Sea level rise of about eight inches has occurred in the last century, and several feet or more of sea-level rise is projected by the end of this century.

A number of state and federal agencies have been regularly updating global projections for sea-level rise and precipitation. These agencies have also provided regional and local projections. This data will be reviewed regularly by the City, as well as projections of future change, and used to understand how flood hazards will change in East Palo Alto. BCDC mapped areas throughout the Bay region susceptible to inundation from potential sea level rise scenarios and under the low sea level rise scenario (16 inches), substantial bayside portions of Specific Plan area would be at risk of inundation if no inundation protections are implemented.⁷²

As discussed in Section 3.10.1.2 above, much of the northwestern portion of the Specific Plan area is within Zone A or Zone X, and portions are located within a tsunami and seiche zone; however, future development projects under the proposed project (under either development scenario) would be required to implement Specific Plan Update Policy LU-6.4. The Specific Plan Policy LU-6.5 ensures that future projects comply with Chapter 15.52 of the City's Municipal Code, which requires projects located in a 100-year flood plain (Flood Zone A) have structures elevated so that the bottom of the lowest floor is one foot above the base flood elevation for residential structures and

⁷² City of East Palo Alto. *Vista 2035 East Palo Alto General Plan*. October 2016. Page 10-8.

flood-proofed to one foot above flood level for non-residential structures. Specific Plan Update Policy LU-6.4 (which is the same as 2013 Specific Plan Policy LU-9.3) ensures that geotechnical reports for each future development take into account flood risks and potential impacts on surrounding buildings.

Proposed Specific Plan Update Policies

- **Policy LU-6.4:** Require preparation of a geotechnical report calculating the building load and placement of fill for each development. Verify that environmental review of this report includes an assessment of flood risks to the building itself and the impacts on neighboring structures from displacement of flood waters. Require the report to consider the cumulative flood risks to other structures from the building in addition to other known, planned, and reasonably foreseeable development.
- **Policy LU-6.5:** As per Chapter 15.52 of the Municipal Code, ensure that at the time a project is proposed in the Plan Area that each proposed new structure in the 100-year flood plain as identified in the current Flood Insurance Rate Map (FIRM) is elevated so that the bottom of the lowest floor is one foot above the base flood elevation (1 BFE) for residential structures, flood-proofed to 1 BFE for nonresidential structures, or granted a Variance pursuant to the procedures outlines in Section 15.52080 (a) to (k).

In addition, future projects under the Specific Plan Update would be required to implement the following design standards to reduce the effects of flood risks and sea level rise on future projects in the Specific Plan area.

Proposed Specific Plan Update Maximum Building Height Standard 6.3.1

- **5. Design Flood Elevation (DFE).** All buildings shall have a minimum elevation of the finish floor of buildings above Base Floor Elevation (BFE), per Figure 6-3 (Chapter 6 of the Specific Plan Update). All buildings shall have a ground floor finish grade elevation of at least 13.5 feet above sea level (NAD 83 / NAVD 88). Buildings located in portions of the Flood Zone shall have higher DFEs as indicated on Figure 6-3 equaling the Base Flood Elevation of 11' plus a minimum of 2.5'-4'-5' of expected sea level rise; this DFE increases as buildings are located closer to the shoreline. Areas subject to flooding from the 100-year storm should be elevated in conformance with FEMA flood protection standards and buildings shall meet all current FEMA Flood Zone standards (subject to change).

3.12 Noise

The following discussion is based, in part, on a Noise Analysis prepared for the Specific Plan update by Illingworth & Rodkin, Inc. in May 2023. The Noise Analysis is included as Appendix E of this Draft SEIR.

3.12.1 Environmental Setting

3.12.1.1 *Background Information*

Noise

Factors that influence sound as it is perceived by the human ear, include the actual level of sound, period of exposure, frequencies involved, and fluctuation in the noise level during exposure. Noise is measured on a decibel scale, which serves as an index of loudness. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness. Because the human ear cannot hear all pitches or frequencies, sound levels are frequently adjusted or weighted to correspond to human hearing. This adjusted unit is known as the A-weighted decibel, or dBA.

Since excessive noise levels can adversely affect human activities and human health, federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. Noise guidelines are generally expressed using one of several noise averaging methods, including L_{eq} , DNL, or CNEL.⁷³ 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.

⁷³ L_{eq} is a measurement of average energy level intensity of noise over a given period of time. Day-Night Level (DNL) is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM. Community Noise Equivalent Level (CNEL) includes an additional five dB applied to noise occurring between 7:00 PM and 10:00 PM. Where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour L_{eq} .

3.12.1.2 Regulatory Framework

Federal

Federal Transit Administration Vibration Limits

The Federal Transit Administration (FTA) has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects. The FTA has proposed vibration impact criteria based on maximum overall levels for a single event. The impact criteria for groundborne vibration are shown in Table 3.12-1 below. These criteria can be applied to development projects in jurisdictions that lack vibration impact standards.

Table 3.12-1: Groundborne Vibration Impact Criteria			
Land Use Category	Groundborne Vibration Impact Levels (VdB inch/sec)		
	Frequent Event	Occasional Events	Infrequent Events
Category 1: Buildings where vibration would interfere with interior operations	65	65	65
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime use	75	78	83

Source: Federal Transit Administration. *Transit Noise and Vibration Assessment Manual*. September 2018.

State

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 DNL noise contour for a freeway or expressway, railroad, or industrial source.

California Green Building Standards Code

For commercial uses, CalGreen (Section 5.507.4.1 and 5.507.4.2) requires that wall and roof-ceiling assemblies exposed to the adjacent roadways have a composite Sound Transmission Class (STC) rating of at least 50 or a composite Outdoor-Indoor Transmission Class (OITC) rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 when the commercial property

falls within the 65 dBA L_{dn} or greater noise contour for a freeway or expressway, railroad, or industrial or stationary noise source. The state requires interior noise levels to be maintained at 50 dBA $L_{eq(1-hr)}$ or less during hours of operation at a proposed commercial use.

Regional and Local

Santa Clara County Airport Land Use Commission Standards

Various policies in the County’s CLUP adopted by the Santa Clara County Airport Land Use Commission contains standards for projects within the vicinity of Palo Alto Airport, which are relevant to a portion of the Specific Plan area. The portion of the Specific Plan area effected by aircraft noise is depicted on Figure 3.12-3. CLUP standards for aircraft noise include the following:

Policy	Description	CNEL					
		55-60	60-65	65-70	70-75	75-80	80-85
N-2	In addition to the other guidelines and policies herein, the Noise Compatibility Guidelines presented in Table 4-1 shall be used to determine if a specific land use is consistent with this CLUP.						
	Land Use Category						
	Residential – low density single-family, duplex, mobile homes	*	**	**	**	****	****
	Residential – multi-family, condominiums, townhouses	*	**	**	**	****	****
	Transient lodging – motels, hotels	*	**	**	**	****	****
	Schools, libraries, churches, hospitals, nursing homes	*	**	**	**	****	****
	Auditoriums, concert halls, amphitheaters	**	**	**	**	****	****
	Sports arena, outdoor spectator sports, parking	*	*	**	**	****	****
	Playgrounds, neighborhood parks	*	*	**	**	**	****
	Office buildings, business commercial and professional	*	*	*	**	**	****
	Industrial, manufacturing, utilities, agriculture	*	*	*	**	**	**
	Note: * Generally Acceptable ** Conditionally Acceptable **** Unacceptable						

Palo Alto Airport Comprehensive Land Use Plan

As stated in Section 3.9.1 of this SEIR, the Palo Alto Airport CLUP was adopted by the Santa Clara County ALUC and is intended to safeguard the general welfare of the inhabitants within the vicinity of the airport, as well as aircraft occupants. The CLUP establishes an airport land use planning area, the AIA, which sets the boundaries for application of the CLUP. Development proposals within the AIA are required to be reviewed by the ALUC.

The CLUP focuses on the three areas of ALUC's responsibility: (1) aircraft noise, (2) the safety of persons on the ground and in aircraft, and (3) the control of objects in navigable airspace.

The below compatibility noise policies from the CLUP are to be used for ALUC consistency review.

Policy	Description
<i>Noise Compatibility Policies</i>	
N-1	The Community Noise Equivalent Level (CNEL) method of representing noise levels shall be used to determine if a specific land use is consistent with the CLUP.
N-2	In addition to the other policies herein, the Noise Compatibility policies presented in Table 3.13-2 shall be used to determine if a specific land use is consistent with this CLUP.
N-3	Noise impacts shall be evaluated according to the Aircraft Noise Contours presented on Figure 5 shown in the CLUP.
N-4	No residential construction shall be permitted within the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound levels will be less than 45 dB CNEL and there are no outdoor patios or outdoor activity areas associated with the residential project. All property owners within the 65 dB CNEL contour boundary who rent or lease their property for residential use shall include in their rental/lease agreement with the tenant, a statement advising that they (the tenants) are living within a high noise area and the exterior noise level is predicted to be greater than 65 dB CNEL.
N-5	Residential construction will not be permitted in the area between the 60 dB CNEL contour boundary and the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound level will be no greater than 45 dB CNEL.
N-6	Noise level compatibility standards for other types of land uses shall be applied in the same manner as the above residential noise level criteria. Table 3.13-2 presents acceptable noise levels for other land uses in the vicinity of the airport.

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating noise and vibration impacts resulting from planned development within the City, including the following:

Policy	Description
--------	-------------

Safety and Noise

6.1 **Noise standards.** Use the Interior and Exterior Noise Standards (Table 10-1) for transportation noise sources. Use the City’s Noise Ordinance for evaluating non-transportation noise sources when making planning and development decisions. Require that applicants demonstrate that the noise standards will be met prior to project approval.

Land Use	Noise Standard	
	Interior ^{1,2}	Exterior
Residential – Single family, multifamily, duplex, mobile home.	CNEL 45 dB	CNEL 65 dB ³
Residential – Transit lodging, hotels, motels, nursing home, hospitals	CNEL 45 dB	CNEL 65 dB
Private offices, church sanctuaries, libraries, board rooms, conference rooms, theaters, auditoriums, concert halls, meeting halls, etc.	Leq(12) 45 dBA	-
Schools	Leq(12) 45 dBA	Leq(12) 67 dBA
General offices, reception, clerical, etc.	Leq(12) 50 dBA	-
Bank lobby, retail store, restaurant, typing pool, etc.	Leq(12) 55 dBA	-
Manufacturing, kitchen, warehousing, etc.	Leq(12) 65 dBA	-
Parks, playgrounds	-	CNEL 65 dB
Golf courses, outdoor spectator sports, amusement parks	-	CNEL 70 dB
Notes:		
1. Noise standard with windows closed.		
2. Indoor environment excluding bathrooms, toilets, closets, and corridors.		
3. Outdoor environment limited to rear yard of single-family homes, multi-family patios, and balconies (with a depth of six feet or more) and common recreation areas.		
4. Outdoor environment limited to playground areas, picnic areas, and other areas of frequent human use.		

6.2 **Compatibility standards.** Utilize noise/land use compatibility standards and the Noise Ordinance as guides for future development decisions.

6.3 **Noise control.** Provide noise control measures, such as berms, walls, and sound attenuating construction in areas of new construction or rehabilitation.

6.4 **Vibration impacts.** The City shall require new development to minimize vibration impacts to adjacent uses during demolition and construction. For sensitive historic structures, a vibration limit of 0.08 in/sec PPV will be used to minimize potential for cosmetic damages

Policy	Description
	to the buildings. A vibration limit of 0.30 in/sec PPV will be used to minimize the potential for cosmetic damage at buildings of normal conventional construction.
6.5	Airport-adjacent land uses. Maintain the non-residential designation for land near the airport in order to prevent new noise-sensitive residential uses from being constructed in areas with excessive aircraft noise.
7.1	Noise ordinance. Continually enforce and periodically review the City’s Noise Ordinance for adequacy (including requiring construction activity to comply with established work schedule limits). Amend as needed to address community needs and development patterns.
7.2	<p>CEQA acoustical analysis. Require an acoustical analysis to evaluate measures for noise generating projects that are likely to cause the following criteria to be exceeded or to cause a significant adverse community response:</p> <ul style="list-style-type: none"> • Cause the Ldn/CNEL at noise-sensitive uses to increase by 3 dBA or more and exceed the “normally acceptable” level. • Cause the Ldn/CNEL at noise-sensitive uses to increase 5 dBA or more and remain “normally acceptable.”
7.7	Site design review. Utilize site design review to identify potential noise impacts on new development, especially from nearby transportation sources. Encourage the use of noise barriers (walls, berms or landscaping), setbacks and/or other buffers.
7.11	<p>Construction noise. The City shall require that contractors use available noise suppression devices and techniques and limit construction hours near residential uses. Reasonable noise reduction measures shall be incorporated into the construction plan and implemented during all phases of construction activity to minimize the exposure of neighboring properties. The City considers significant construction noise impacts to occur if a project located within 500 feet of residential uses or 200 feet of commercial or office uses would:</p> <ul style="list-style-type: none"> – Involve substantial noise generating activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) continuing for more than 12 months. <p>For such large or complex projects, a construction noise logistics plan that specifies hours of construction, noise and vibration minimization measures, posting or notification of construction schedules, and designation of a noise disturbance coordinator who would respond to neighborhood complaints will be required to be in place prior to the start of construction and implemented during construction to reduce noise impacts on neighboring residents and other uses. A typical construction noise logistics plan would include, but not be limited to, the following measures to reduce construction noise levels as low as practical:</p> <ul style="list-style-type: none"> • Limit construction activity to weekdays between 7:00 a.m. and 7:00 p.m. and Saturdays and holidays between 9:00 a.m. and 7:00 p.m., with no construction on Sundays;

Policy	Description
	<ul style="list-style-type: none"> • Utilize “quiet” models of air compressors and other stationary noise sources where technology exists; • Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment; • Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses; • Locate staging areas and construction materials areas as far away as possible from adjacent land uses; • Prohibit all unnecessary idling of internal combustion engines; • If impact pile driving is prohibited, multiple-pile drivers shall be considered to expedite construction. Although noise levels generated by multiple pile drivers would be higher than the noise generated by a single pile driver, the total duration of pile driving activities would be reduced; • If impact pile driving is proposed, foundation pile holes shall be pre-drilled to minimize the number of impacts require to seat the pile. Pre-drilling reduces the number of blows required to seat the pile. Notify all adjacent land uses of the construction schedule in writing; • Designated a “disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem be implemented; and
	<p>Conspicuously post a telephone number and other contact information for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction.</p>

City of East Palo Alto Municipal Code

Chapter 8.52, Noise Control, in the City of East Palo Alto’s Municipal Code seeks to protect the citizens of East Palo Alto from unnecessary, excessive, and annoying noise, to maintain quiet in areas where noise levels are low, and to implement programs to reduce unacceptable noise. The regulations limit the amount of noise that may be created as measured at the exterior of any dwelling unit, school, hospital, church, or public library. Table 3.12-2 provides the Municipal Code’s exterior noise standards. Additionally, Chapter 8.52 limits the creation of noise that results in excessive noise levels within any dwelling unit. Table 3.12-3 below provides the standards for interior noise in dwelling units. Exemptions to these standards are provided for special events and construction activities not taking place between 8:00 p.m. and 7:00 a.m.⁷⁴

⁷⁴ City of East Palo Alto. *City of East Palo Alto Municipal Code Chapter 8.52 Noise Control*. March 26, 2021.

Table 3.12-2: Exterior Noise Level Standards			
Category	Cumulative Numbers of Minutes in Any 1-Hour Time Period	Noise Level Standards, dBA	
		Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
1	30	55	50
2	15	60	55
3	5	65	60
4	1	70	60
5	0	75	70

Notes:

1. In the event the measured background noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted in five dBA increments so as to encompass the background noise level.
2. Each of the noise level standards specified above shall be reduced by five dBA for simple tone noises, consisting primarily of speech or music, or for recurring or intermittent impulsive noises.
3. If the intruding noise source is continuous and cannot reasonably be stopped for a period of time whereby the background noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards in this table.

Source: City of East Palo Alto. City of East Palo Alto Municipal Code. 2021.

Table 3.12-3: Interior Noise Level Standards			
Category	Cumulative Numbers of Minutes in Any 1-Hour Time Period	Noise Level Standards, dBA	
		Daytime (7:00 a.m. to 10:00 p.m.)	Nighttime (10:00 p.m. to 7:00 a.m.)
1	5	45	40
2	1	50	45
3	0	55	50

Notes:

1. In the event the measured background noise level exceeds the applicable noise level standard in any category above, the applicable standard shall be adjusted in five dBA increments so as to encompass the background noise level.
2. Each of the noise level standards specified above shall be reduced by five dBA for simple tone noises, consisting primarily of speech or music, or for recurring or intermittent impulsive noises.
3. If the intruding noise source is continuous and cannot reasonably be stopped for a period of time whereby the background noise level can be measured, the noise level measured while the source is in operation shall be compared directly to the noise level standards in this table.

Source: City of East Palo Alto. City of East Palo Alto Municipal Code. 2021.

Section 15.04.125 of the City’s Municipal Code limits construction activity to the hours of 7:00 a.m. to 6:00 p.m. Monday through Friday and 9:00 a.m. to 5:00 p.m. on Saturdays. No construction activity is allowed on Sundays.⁷⁵

3.12.1.3 Existing Conditions

The noise environment in the project vicinity is dominated by traffic noise from State Route 109 (SR 109), University Avenue, Bay Road, Clarke Avenue, and Pulgas Avenue. Frequent aircraft overflights associated with nearby airports (i.e., Palo Alto Airport and San Francisco International Airport) also contribute to the noise environment. Portions of the Specific Plan area include industrial land uses that further contribute to the noise environment.

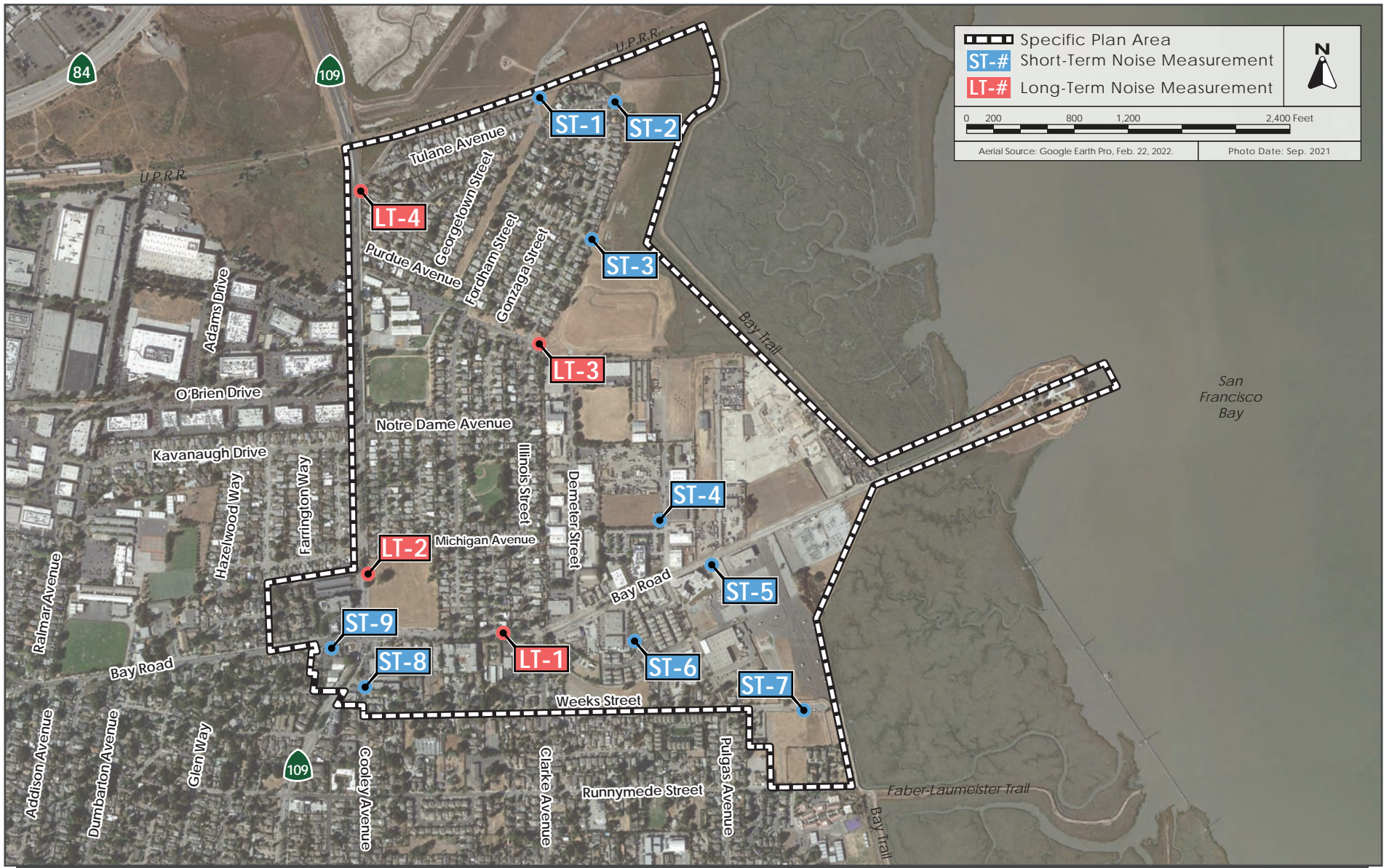
A noise measurement survey was completed to establish existing noise sources and noise levels in the Specific Plan area. Four long-term noise measurements (LT-1 through LT-4) and nine short-term (ten-minute duration) noise measurements (ST-1 through ST-9) were made within the Specific Plan area. The predominant noise sources at each location were vehicular traffic, aircraft flying overhead, and the use of tools and industrial equipment . The results of these measurements are summarized in Table 3.12-4 and Table 3.12-5 below, and measurement locations are shown on Figure 3.12-1. Existing traffic noise contours on the Specific Plan area and its vicinity are shown on Figure 3.12-2.

Table 3.12-4: Summary of Short-Term Noise Measurements						
Noise Measurement Locations*	Measured Noise Level, dBA					
	L_{max}¹	L₍₁₎²	L₍₁₀₎²	L₍₅₀₎²	L₍₉₀₎²	L_{eq(10-min)}³
ST-1: End of Rutgers Street	61	58	53	46	41	49
ST-2: End of Fordham Street	59	58	52	43	39	48
ST-3: End of Stevens Avenue	67	56	51	43	40	48
ST-4a: Across from 2524 Pulgas Avenue	95	80	70	60	55	71
ST-4b: Across from 2524 Pulgas Avenue	79	71	65	57	49	62
ST-5: 1950 Bay Road	75	72	64	52	48	60
ST-6: Playground near 621 Montage Circle	67	64	54	43	41	51
ST-7: End of Weeks Street	66	60	45	37	34	46
ST-8: 2370 Cooley Avenue	67	66	64	60	52	60
ST-9: 1586 Bay Road	73	69	64	59	55	61

⁷⁵ Per Municipal Code Section 15.040125B(3) an exception to the permitted construction hours may be granted by Planning Commission.

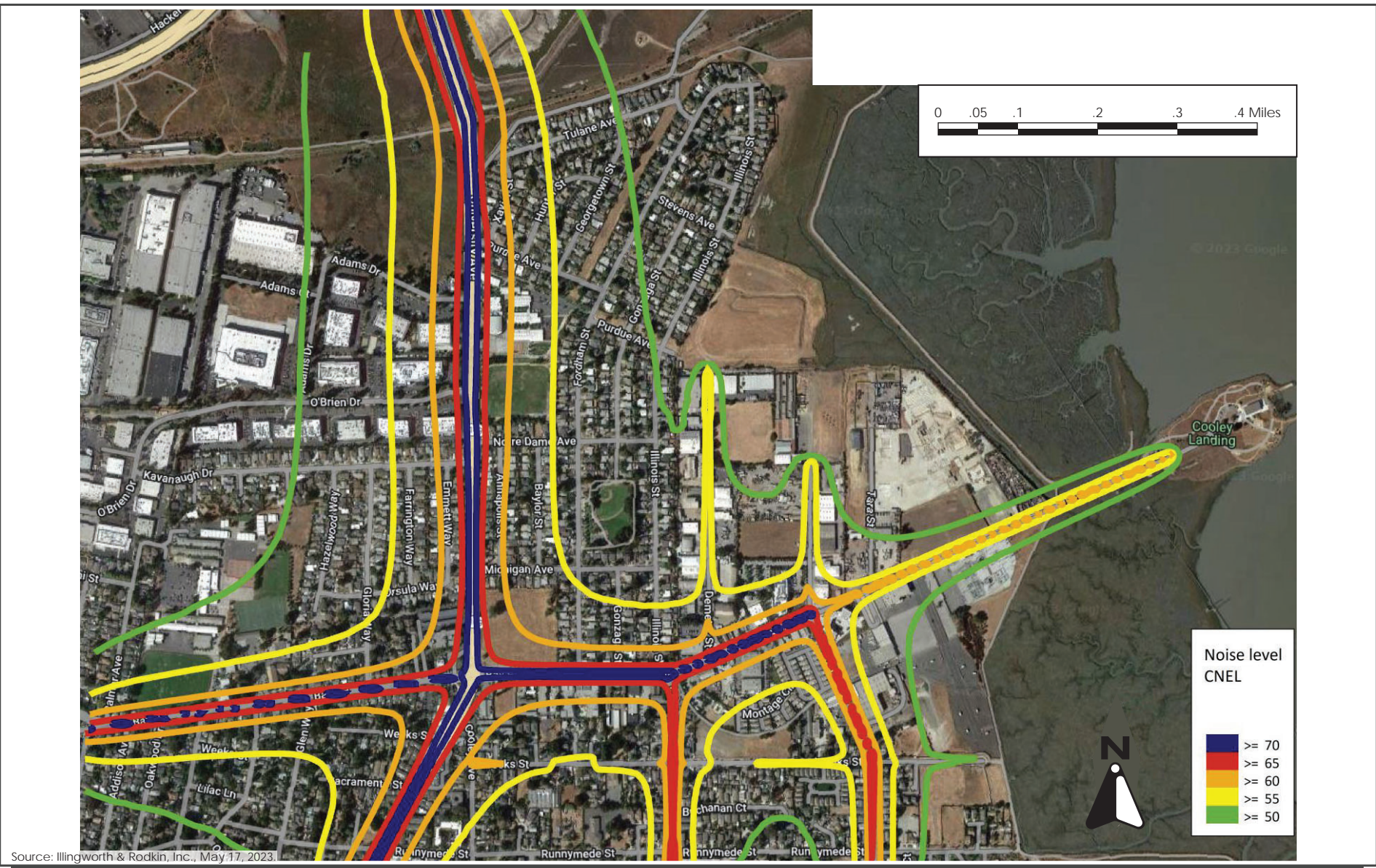
Table 3.12-4: Summary of Short-Term Noise Measurements						
Noise Measurement Locations*	Measured Noise Level, dBA					
	L_{max}¹	L₍₁₎²	L₍₁₀₎²	L₍₅₀₎²	L₍₉₀₎²	L_{eq(10-min)}³
Notes:						
* Refer to Figure 3.12-1 for noise measurement locations.						
¹ L _{max} = The maximum A-weighted noise level during the measurement period.						
² L ₍₀₁₎ , L ₍₁₀₎ , L ₍₅₀₎ , L ₍₉₀₎ = The A-weighted noise levels that are exceeded one percent, 10 percent, 50 percent, and 90 percent of the time during the measurement period.						
³ L _{eq} = Average A-weighted noise level during the measurement period (10-minute intervals).						
Source: Illingworth & Rodkin, Inc. <i>Ravenswood/4 Corners TOD Specific Plan Update SEIR Noise and Vibration Assessment</i> . May 17, 2023.						

Table 3.12-5: Summary of Long-Term Noise Measurements			
Noise Measurement Location¹	Hourly Average L_{eq}²		CNEL⁵
	Daytime Hours³	Nighttime Hours⁴	
LT-1: Bay Road	61 to 76	51 to 66	70
LT-2: University Avenue	71 to 77	62 to 72	77
LT-3: Illinois Street	50 to 63	38 to 52	58
LT-4: University Avenue	64 to 72	55 to 66	71
Notes:			
¹ Refer to Figure 3.13-1 for noise measurement locations.			
² L _{eq} is the average A-weighted noise level during the measurement period.			
³ Daytime hours were between 7:00 AM and 10:00 PM.			
⁴ Nighttime hours were between 10:00 PM and 7:00 AM			
⁵ CNEL is the average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 pm to 10:00 pm and after addition of 10 decibels to sound levels measured in the night between 10:00 pm and 7:00 am			
Source: Illingworth & Rodkin, Inc. <i>Ravenswood/4 Corners TOD Specific Plan Update SEIR Noise and Vibration Assessment</i> . May 17, 2023.			



NOISE MEASUREMENT LOCATIONS

FIGURE 3.12-1



EXISTING TRAFFIC NOISE CONTOURS

FIGURE 3.12-2

Sensitive Receptors

While most of the Specific Plan area is developed with commercial and industrial uses, there are several residential developments in the southwest portions of the Specific Plan area. Residential neighborhoods, including University Village, are also located adjacent to the western and southern borders of the Specific Plan area.

Airport Influence Areas

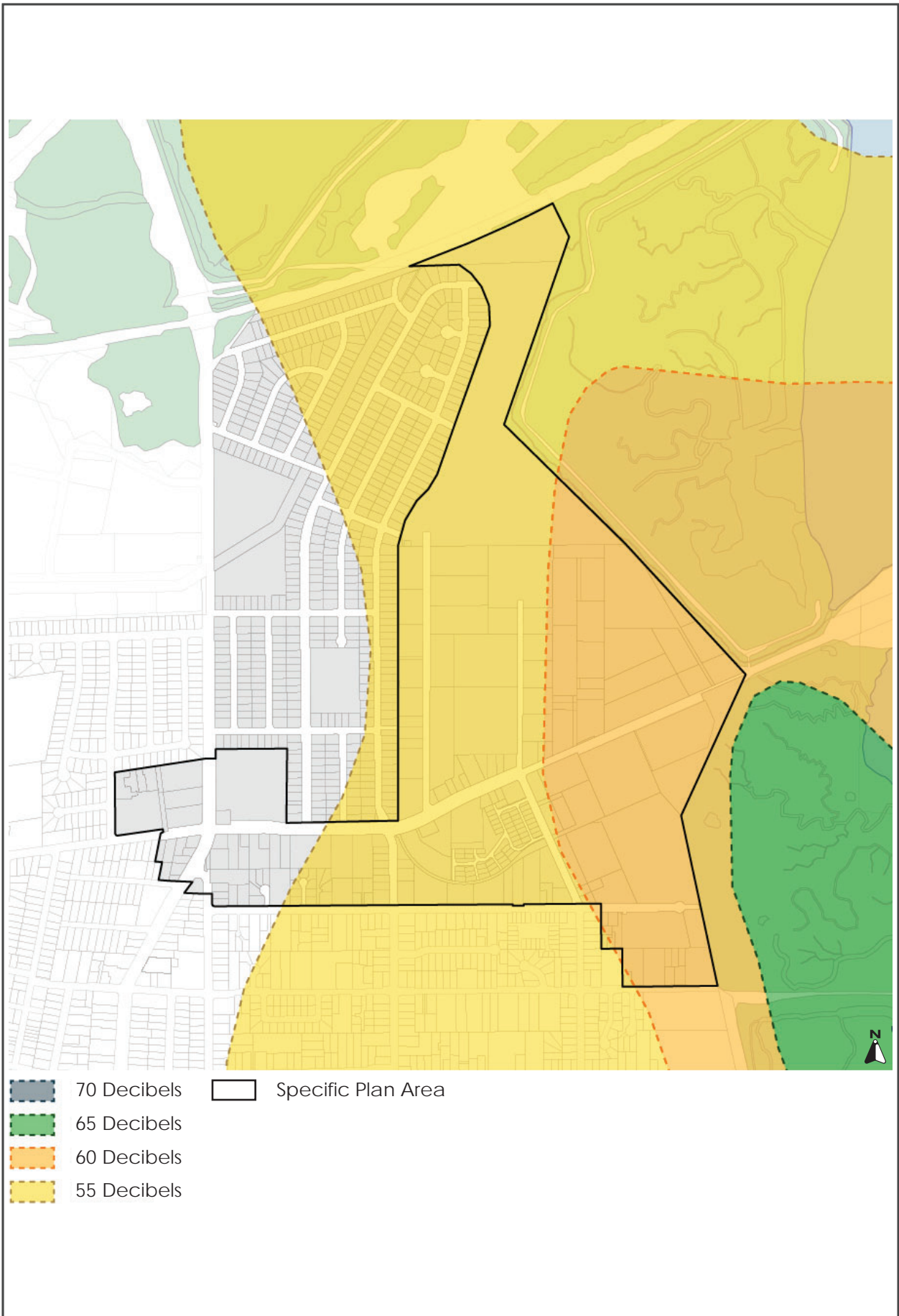
The Specific Plan area is approximately 0.6-mile northwest of the Palo Alto Airport. The Specific Plan area is outside the 65 dBA CNEL contour line described in the Palo Alto Airport CLUP. Portions of the Plan area are within the 55 and 60 dBA CNEL noise contours (refer to Figure 3.12-3).

3.12.2 Impact Discussion

For the purpose of determining the significance of the project's impact on noise, would the project result in:

- 1) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- 2) Generation of excessive groundborne vibration or groundborne noise levels?
- 3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The 2013 Specific Plan allowed 1.4 million square feet of office/R&D space, 175,910 square feet of industrial space, 112,400 square feet of retail space, 61,000 square feet of civic/community space, and 835 residential units. The proposed Specific Plan update would increase the total amount of development allowed within the Specific Plan area by increasing the maximum square footages for office, R&D/life science, light industrial, civic/community, and tenant amenity, and the total number of residential units compared to the development allowed under the 2013 Specific Plan. Two different development scenarios (each including the multi-use path, with or without the loop road) are being considered for this project. Scenario #1 would allow up to 2.8 million square feet of office and R&D, 250,000 square feet of industrial space, 112,400 square feet of retail space, 154,700 square feet of civic/community space, and 43,870 square feet of tenant amenity space, and 1,350 residential units. Scenario #2 would allow up to 3.3 million square feet of office and R&D space, 300,000 square feet of industrial space, 112,400 square feet of retail space, 154,700 square feet of civic/community space, and 1,600 residential units.



AIRPORT NOISE CONTOURS

FIGURE 3.12-3

3.12.2.1 *Project Impacts*

- a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
-

Construction Noise Impacts

General Plan Safety and Noise Policy 7.11 states that a significant construction noise impact would occur if substantial noise-generating construction activities (such as building demolition, grading, excavation, pile driving, use of impact equipment, or building framing) occurred outside of the hours of 7:00 a.m. and 7:00 p.m. on weekdays, outside of the hours of 9:00 a.m. to 7:00 p.m. on Saturdays and within 500 feet of residential uses or 200 feet of commercial or office uses for more than 12 months.

The 2013 Specific Plan EIR concluded that although construction noise would be localized to individual sites during construction of the Specific Plan, businesses and residences throughout the area could be intermittently exposed to elevated levels of noise (with short period increases as high as 15 to 20 dBA) throughout the years of construction. This was determined to result in a significant noise impact; however, that impact was found to be reduced to a less than significant level with implementation of 2013 Specific Plan EIR Mitigation Measures NOI-5a and NOI-5b (see below). These two mitigation measures would reduce temporary construction noise impacts by requiring adherence to the City's Municipal Code and implementation of best management practices during project construction.

2013 Specific Plan EIR Mitigation Measure NOI-5a:

- Implement the provisions of Section 8.52.350-E of the East Palo Alto Municipal Code that regulate construction hours.

2013 Specific Plan EIR Mitigation Measure NOI-5b: Construction equipment shall be well maintained and used judiciously to be as quiet as practical. The following measures, when applicable, shall be required to reduce noise from construction activities:

- Ensure that all internal combustion engine-driven equipment is equipped with mufflers that are in good operating condition and appropriate for the equipment.
- Utilize "quiet" models of air compressors and other stationary noise sources where such technology exists.
- Locate stationary noise-generating equipment as far as reasonable from sensitive receptors where sensitive receptors adjoin or are near a construction project area.
- Prohibit unnecessary idling of internal combustion engines in excess of 5 minutes.
- Pre-drill foundation pile holes to minimize the number of impacts required to seat the pile. Construct solid plywood fences around construction sites adjacent to operational business, residences or noise-sensitive land uses.

- Erect a temporary noise control blanket barrier, if necessary, along building facades facing construction sites. This mitigation would only be necessary if conflicts occurred that were irresolvable by proper scheduling. Noise control blanket barriers can be rented and quickly erected and with proper installation can typically lower construction noise levels by 10 dBA (10 dBA represents a perceived halving of noise levels).
- Route construction-related traffic along major roadways and as far as feasible from sensitive receptors.
- Ensure that construction activities, including the loading and unloading of materials and truck movements, are limited to the hours specified in Section 8.52 of the East Palo Alto Municipal Code.
- Notify businesses, residences, and noise-sensitive land uses adjacent to construction sites of the construction schedule in writing. Designate a “construction liaison” who is responsible for responding to any local complaints about construction noise. The liaison shall determine the cause of the noise complaints (for example starting too early, or a bad muffler) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

No specific development or construction is proposed as part of the Specific Plan Update, and the details on the timing and manner of construction for individual projects that would implement the Specific Plan are currently unknown. The Specific Plan Update would be built out over the span of many years (approximately 20 years). As such, construction activities would occur intermittently at different sites within the Specific Plan area until full buildout is completed. Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, timing and duration of noise-generating activities, and distance between construction noise sources and noise-sensitive areas. Major noise-generating construction activities associated with the Specific Plan would typically include removal of existing structures, site grading and excavation, installation of utilities, the construction of building foundations, cores, and shells, paving, and landscaping. Construction activities required for high-rise buildings may require impact or vibratory pile driving activities to support the structure, which would generate high noise levels. Site grading, excavation activities, the operation of heavy construction equipment, and the arrival/departure of heavy-duty trucks would also generate high noise levels.

Typical hourly average construction generated noise levels are about 81 to 88 dBA L_{eq} , measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors. Lower noise levels result from building construction activities when these activities move indoors, and less heavy equipment is required to complete the tasks.

Because existing residential land uses located within 500 feet of the Plan area and commercial uses located within 200 feet of the Plan area would be expected to be exposed to a temporary increase in ambient noise levels due to construction activities on multiple development sites within the Specific Plan for a period exceeding one year, implementation of the Specific Plan Update under

either scenario would result in a significant construction noise impact, consistent with the findings of the 2013 Specific Plan EIR. Scenarios 1 and 2 represent roughly twice as much development as currently allowed under the 2013 Specific Plan, and therefore, they would result in roughly twice as much overall construction activity over the 15 years the Plan would be implemented, compared with implementing the remainder of the 2013 Specific Plan development allowed. Given the loop road would be larger in area (6.3 acres) than the multi-use path (3.8 acres), the loop road may require a longer construction period than the multi-use path. However, construction of the multi-use path and the loop road would be subject to the same construction mitigation as other development under Specific Plan Update Scenarios 1 and 2.

To reduce the potential construction noise impacts, future development under the Specific Plan Update, under either scenario, would implement the below Mitigation Measure NOI-1.1, which would ensure that the construction activities required during implementation of the proposed Specific Plan update would be conducted during the hours allowed under Section 8.52.350-E of the City's Municipal Code and that a construction logistics plan is prepared prior to the issuance of future projects' grading permits. Mitigation Measure NOI-1.1 would replace 2013 Specific MM NOI-5a and MM NOI-5b as it includes updated requirements for construction activities.

Impact NOI-1: Future projects within 500 feet of residential land uses and 200 feet of commercial land uses could result in significant temporary noise impacts to these receptors.

MM NOI-1.1: Prior to the issuance of future developments' grading permits, a typical construction noise logistics plan would include, but not be limited to, the following measures to reduce construction noise levels as low as practical:

- Limit construction activity to weekdays between 7:00 a.m. and 7:00 p.m. and Saturdays and holidays between 9:00 a.m. and 7:00 p.m., with no construction on Sundays;
- Limit combined construction noise levels (levels from all construction equipment used per phase) to an hourly average of 80 dBA L_{eq} for residential receptors and to an hourly average of 90 dBA L_{eq} for commercial receptors;
- Utilize "quiet" models of air compressors and other stationary noise sources where such technology exists;
- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment;
- Locate all stationary noise-generating equipment, such as air compressors and portable power generators, as far away as possible from adjacent land uses;
- Locate staging areas and construction material areas as far away as possible from adjacent land uses;
- Prohibit all unnecessary idling of internal combustion engines;

- If impact pile driving is proposed, multiple-pile drivers shall be considered to expedite construction. Although noise levels generated by multiple pile drivers would be higher than the noise generated by a single pile driver, the total duration of pile driving activities would be reduced;
- If impact pile driving is proposed, temporary noise control blanket barriers shall shroud pile drivers or be erected in a manner to shield the adjacent land uses. Such noise control blanket barriers can be rented and quickly erected;
- If impact pile driving is proposed, foundation pile holes shall be pre-drilled to minimize the number of impacts required to seat the pile. Pre-drilling foundation pile holes is a standard construction noise control technique. Pre-drilling reduces the number of blows required to seat the pile. Notify all adjacent land uses of the construction schedule in writing;
- Designate a “disturbance coordinator” who would be responsible for responding to any local complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and will require that reasonable measures warranted to correct the problem are implemented.
- Conspicuously post a telephone number for the disturbance coordinator at the construction site and include it in the notice sent to neighbors regarding the construction.

In addition, future individual projects would comply with General Plan Policy 7.11, which requires large or complex projects to prepare a construction noise logistics plan prior to the start of construction in order to further reduce noise impacts on neighboring residents and other uses. Implementation of these mitigation measures and adherence to City policies and regulations would reduce temporary construction noise impacts to a less than significant level, which is consistent with the findings of the 2013 Specific Plan EIR. Construction of the loop road or the multi-use path would be subject to these mitigations and policies as well.

(Less than Significant Impact with Mitigation Incorporated)

Operational Noise Impacts

The 2013 Specific Plan EIR concluded that operational noise after buildout of the Specific Plan Update could result in a significant impact to existing residential uses within the Specific Plan Area. However, this impact would be reduced to a less than significant level with implementation of Mitigation Measure NOI-3 (see below) and Specific Plan Policy TRA-2.4.⁷⁶ Implementation of Mitigation Measure NOI-3 would limit exterior noise levels in noise sensitive areas to levels specific

⁷⁶ Policy TRA-2.4: Promote use of “quieter” paving types such as Open-Grade Rubberized Asphaltic Concrete along Bay Road, Pulgas Avenue and Weeks Street in the Plan Area and vicinity.

in Chapter 8.52 of the City’s Municipal Code, and Specific Plan Policy TRA-2.4 would require the use of “quiet” paving types to reduce traffic noise within the Specific Plan area.

2013 Specific Plan EIR Mitigation Measure NOI-3:

- Limit exterior noise levels in noise sensitive outdoor use areas to levels specified in Section 8.52.320 of the East Palo Alto Municipal Code as specified in Table 4.11-7 of the Specific Plan 2013 EIR (Table 3.12-2 of this SEIR) of this document. Meeting these noise performance standards would be the responsibility of the developer of the proposed use. In areas where new residential development would be located adjacent to noise-generating uses, site-specific noise studies shall be conducted to determine the area of impact and to present appropriate mitigation measures, which would include the measures recommended in Mitigation Measure NOI-1.

The above Mitigation Measure NOI-3 states that measures from Mitigation Measure NOI-1, included in the 2013 Specific Plan EIR and copied below, would be implemented to reduce noise in areas where new residential development would be adjacent to noise-generating uses.

2013 Specific Plan EIR Mitigation Measure NOI-1: In areas where new residential development would be exposed to a CNEL of greater than 60 dBA, site-specific noise studies shall be conducted to determine the area of impact and to present appropriate mitigation measures, which may include the following:

- Minimize noise in shared residential outdoor activity areas by locating areas behind buildings or in courtyards, or by orienting the terraces to alleyways rather than streets, wherever possible.
- Provide mechanical ventilation in conformance with Uniform Building Code (UBC) requirements and specified in the General Plan, in all residential units proposed along roadways or in areas where noise levels could exceed 60 dBA CNEL so that windows can remain closed at the choice of the occupants to maintain interior noise levels below 45 dBA CNEL.
- Install sound-rated windows and use appropriate construction methods to provide the requisite noise control for residential units proposed along roadways or in areas where noise levels could exceed 70 dBA CNEL.

The Mitigation Measures MM NOI-1 and MM NOI-3 are related to the operational noise effects on future projects. The effects of the environment on the project are not considered CEQA impacts.

Land Use

The Specific Plan Update (under either development scenario including the multi-use path, with or without the loop road) would include a variety of land use types (residential, office, industrial, commercial, R&D) which could include noise-generating sources such as truck deliveries and mechanical equipment. Future development under the Specific Plan Update would be required to implement General Plan noise policy 7.2, which requires an acoustical analysis to evaluate measures

for noise generating projects that are likely to cause the following criteria to be exceeded or to cause a significant adverse community response:

- Cause the Ldn/CNEL at noise-sensitive uses to increase by 3 dBA or more and exceed the “normally acceptable” level.
- Cause the Ldn/CNEL at noise-sensitive uses to increase 5 dBA or more and remain “normally acceptable.”

In addition, future development would comply with Section 8.52.320 of the City’s Municipal Code to reduce operational impacts to a less than significant level, which is consistent with the findings of the 2013 specific Plan EIR.

(Less than Significant Impact)

Traffic Noise

Increases in traffic noise gradually degrade the environment in areas sensitive to noise as development occurs. An impact would be considered significant if traffic generated by future development would substantially increase noise levels at sensitive receptors within the Specific Plan area or in the vicinity. Based on General Plan Policy SN-7.2, a permanent increase in noise levels would be considered substantial if traffic volumes result in a noise level increase at sensitive receptors of three (3) dBA CNEL and ambient conditions exceed the “normally acceptable” level of 65 dBA CNEL or is five (5) dBA CNEL or greater and ambient conditions remain “normally acceptable;” (at or under 65 dBA CNEL). In addition, a cumulatively considerable contribution to a significant permanent noise level increase would be one dBA CNEL increase over cumulative no project conditions.

Traffic noise contours were calculated for the existing and future traffic conditions along major roadways, expressways, and highways in the Specific Plan area. Calculations accounted for traffic noise, the frequency spectra of the noise source, traffic speeds, vehicle mix information, and the topography of the area.

Table summarizes the existing and projected future noise levels on select roadway segments for both development scenarios (with the loop road or multi-use path). Figure 3.12-4 shows cumulative 2040 Scenario 2 without the loop road project traffic noise contours for the Specific Plan area, which is the scenario with the largest increase in trips on existing roads. Figure 3.12-5 shows the corresponding cumulative 2040 Scenario 2 with the loop road project traffic noise contours for the Specific Plan area.

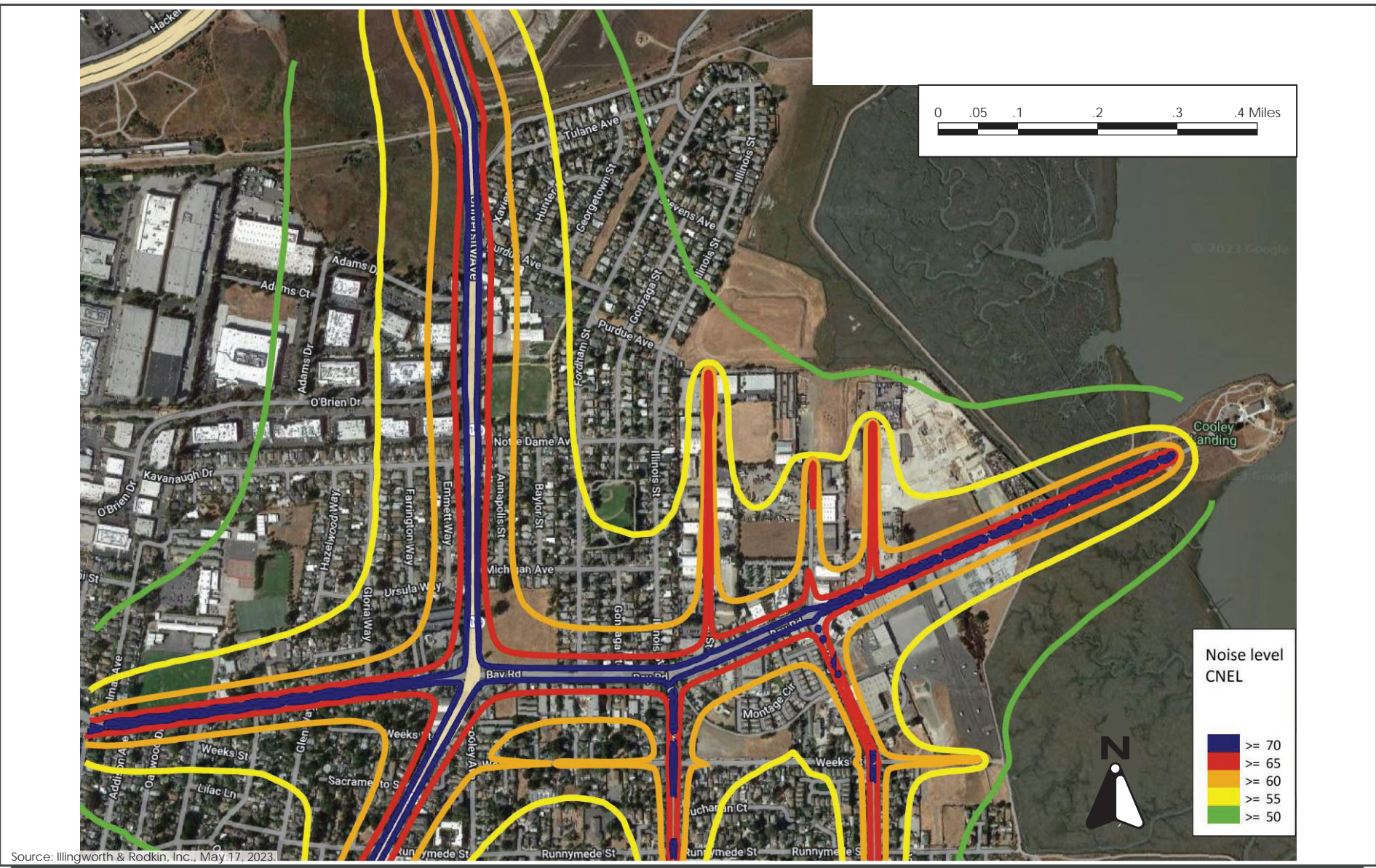
Table 3.12-6: Existing and Future Noise Levels Along Surrounding Roadways

Roadway	Segment	CNEL at 75 feet from the Roadway Centerline, dBA					
		Existing	2040 "Adopted 2013 Specific Plan" Scenario with Loop Road	2040 Update Scenario #1 No Loop Road	2040 Update Scenario #1 With Loop Road	2040 Update Scenario #2 No Loop Road	2040 Update Scenario #2 With Loop Road
University Avenue	Bayfront Expressway to Loop Road (future)	66	66	67	67	67	67
	Loop Road to Purdue Ave.	66	66	66	66	66	66
	Purdue Ave to O Brian Dr	66	67	67	67	67	67
	O Brian Dr to Notre Dame Ave	66	66	67	66	67	66
	Notre Dame Ave to Bay Road	64	65	65	65	65	65
	Bay Road to Runnymede St	64	65	65	65	66	66
	South of Runnymede St	64	65	66	66	66	66
Bay Road	East of Newbridge St	62	63	63	63	64	64
	University Ave to Clarke Ave	64	66	67	66	67	67
	Clarke Ave to Pulgas Ave	64	65	68	67	68	67
	East of Pulgas Ave	62	63	65	65	65	65
Pulgas Ave	North of Bay Road	61	61	62	62	62	62
	Bay Road to Weeks St	62	62	63	63	63	63
	Weeks St to Runnymede St	61	61	62	62	62	62
	South of Runnymede St	61	61	62	62	62	62
Clarke Ave	Bay Road to Weeks St	61	62	63	63	64	63
	Weeks St to Runnymede St	60	61	62	61	62	61
	South of Runnymede St	60	60	61	61	61	61
Demeter St	North of Bay Road	57	58	60	59	60	59
Tara St	North of Bay Road	61	62	62	62	63	62
Weeks St	West of Clarke Ave	59	60	60	60	60	60
	Clarke Ave to Pulgas Ave	59	59	60	60	60	60
	East of Pulgas Ave	62	62	63	63	63	63

Table 3.12-6: Existing and Future Noise Levels Along Surrounding Roadways							
Roadway	Segment	CNEL at 75 feet from the Roadway Centerline, dBA					
		Existing	2040 "Adopted 2013 Specific Plan" Scenario with Loop Road	2040 Update Scenario #1 No Loop Road	2040 Update Scenario #1 With Loop Road	2040 Update Scenario #2 No Loop Road	2040 Update Scenario #2 With Loop Road
Loop Road	East of University Ave	58	60	58	60	58	60
	North of Demeter St	58	60	58	60	58	60

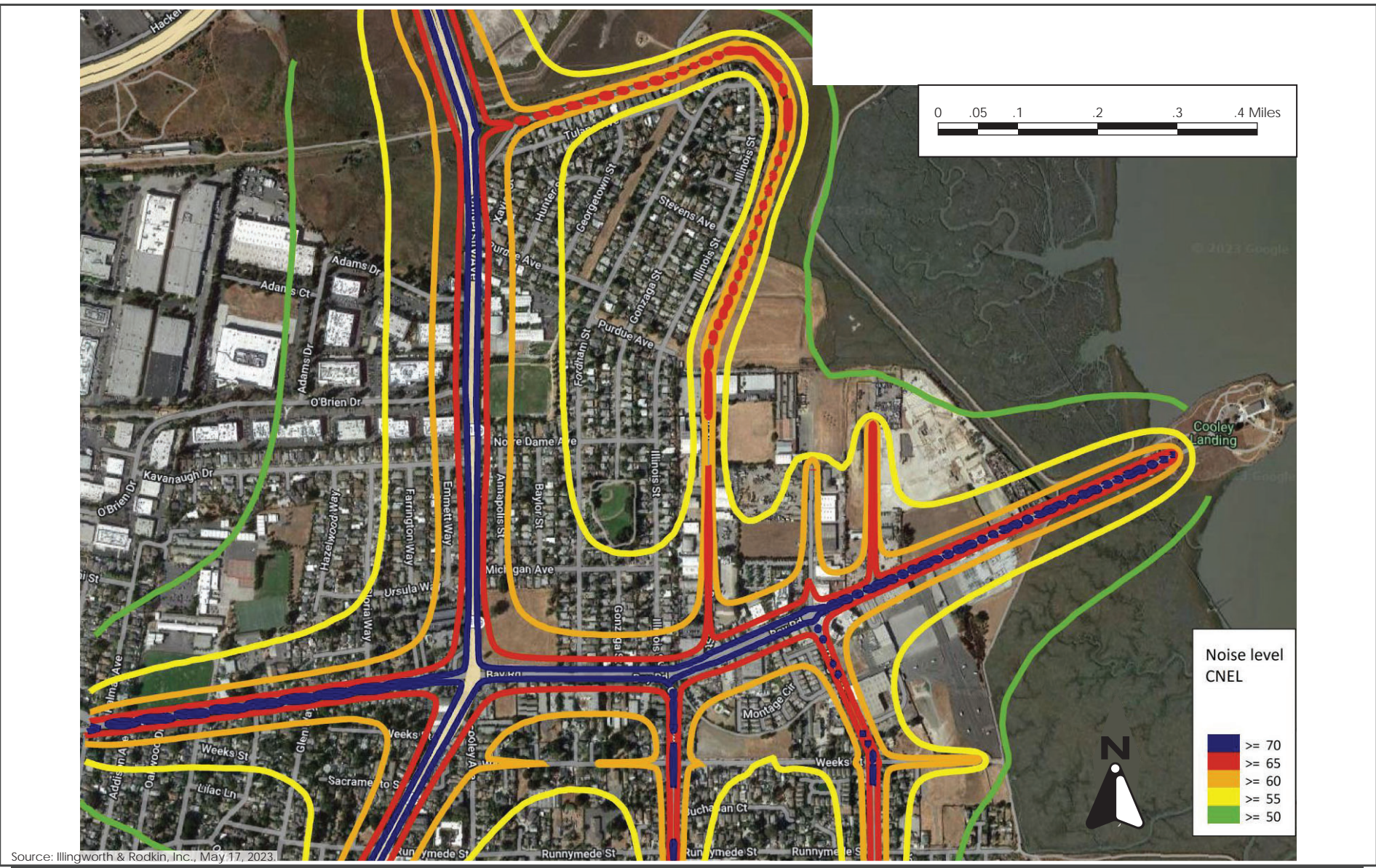
Bold numbers indicate a significant increase in noise levels compared to existing conditions. **Shaded** numbers indicate a cumulatively significant contribution to noise levels.

Source: Illingworth & Rodkin, Inc. *Ravenswood/4 Corners TOD Specific Plan Update SEIR Noise and Vibration Assessment*. May 17, 2023. Table 7.



SCENARIO #2 (2040) NO LOOP ROAD TRAFFIC NOISE CONTOURS

FIGURE 3.12-4



SCENARIO #2 (2040) WITH LOOP ROAD TRAFFIC NOISE CONTOURS

FIGURE 3.12-5

As shown in Table 3.12-6, Table buildout of the Specific Plan Update with the loop road would generally result in slightly lower traffic noise levels than without the loop road, for both scenarios, as the loop road would handle some traffic that would otherwise be traveling on existing streets, such as Bay Road. However, the traffic volumes on the loop road would not be substantial enough to increase noise levels by more than two (2) dBA CNEL, and would not therefore result in a substantial increase in noise levels above existing conditions along the planned route of the loop road. The noise produced by the multi-use trail (i.e. bicyclists, pedestrians) would be less than the loop road traffic noise. Traffic noise levels for development Scenarios 1 and 2 are similar, with Scenario 2, which includes about 15 percent more development than Scenario #1, producing the larger traffic volumes. Traffic noise increases by two (2) dBA when compared to the existing conditions for all scenarios for the loop road segments (refer to Table 3.12-6). The traffic volumes on the loop segments do not substantially differ between the scenarios. The traffic for Scenario 1 would result in 645 peak hour trips and Scenario 2 would have 702 peak hour trips on both loop road segments.

The Specific Plan Update buildout would result in an increase of three dBA CNEL or more at two roadway segments on Bay Road when 2040 cumulative plus project scenarios are compared to existing conditions and would increase noise levels by one dBA CNEL over cumulative no project conditions. Both of these Bay Road segments have noise sensitive residential receptors along the roadway; therefore, the increase in noise levels would be considered a significant impact given the three dBA CNEL increase would be notable to properties along those affected road segments. To reduce the noise level increase, the measures described below, involving installing quieter pavement and reducing average traffic speeds, would be implemented prior to buildout of the Specific Plan Update.

Impact NOI-2: Traffic noise levels would result in an increase of three dBA CNEL or more at two roadway segments on Bay Road when 2040 cumulative plus project scenarios are compared to existing conditions and would increase noise levels by one dBA CNEL over cumulative no project conditions, resulting in a significant increase in permanent noise levels.

Mitigation Measure: Implementation of the following mitigation measures will reduce impacts from traffic noise to a less than significant level.

MM NOI-2.1: To address impacts related to traffic noise, the City shall ensure implementation of the following noise reduction strategies:

Future development projects under the Specific Plan Update shall pay a fair share contribution toward the City's installation of quieter pavement types such as Open-Grade Rubberized Asphaltic Concrete which could reduce noise levels by two (2) to three (3) dBA depending on factors such as existing pavement type and traffic speed allowed.

- Future development projects shall install or pay a fair share contribution toward the City's installation of traffic calming measures along Bay Road (between University Avenue and Pulgas Avenue) that include, but not limited to, speed humps, bumps, or tables, or traffic circles. Future traffic calming measures would be coordinated with the Menlo Park Fire Protection District to ensure there would be no substantial effects on response times.

Implementation of Mitigation Measure MM NOI-2.1 would reduce traffic noise impacts along the impacted roadway segments to less than significant (refer to Table 3.12-6). Installing traffic calming measures to slow traffic along Bay Road (between University Avenue and Pulgas Avenue) could provide reduce noise levels caused by speeding vehicles. Installing quieter pavement types such as Open-Grade Rubberized Asphaltic Concrete could reduce noise levels by two (2) to three (3) dBA. However, engineering issues may affect the feasibility of installing quieter pavement along the impacted Bay Road segments and it may not be feasible to reduce traffic noise at all affected sensitive receptors along Bay Road (between University Avenue and Pulgas Avenue); and, in that event, the impact of the Specific Plan Update buildout (including with or without the loop road for both scenarios) would be significant and unavoidable.

(Significant and Unavoidable Impact)

Mechanical Equipment

Future development under the Specific Plan Update (under either development scenario, with the loop road or multi-use trail) would likely include mechanical equipment for heating, ventilation, cooling, manufacturing, and other similar uses. Such equipment could produce noise levels that exceed the exterior noise level thresholds specified in Section 8.52.320 of the City's Municipal Code for sensitive receptors. Given that the Specific Plan Update Scenarios 1 and 2 involve roughly twice the amount of overall development as the 2013 Specific Plan, there would presumably be substantially more mechanical equipment to support the greater amount of development, leading to increased potential for noise impacts from mechanical equipment being placed near sensitive receptors. Future developments would implement the Mitigation Measure MM NOI-3.1 which would replace 2013 Specific Plan EIR Mitigation Measure NOI-3, to include more specific examples of noise reduction measures for mechanical equipment to comply with the thresholds in Section 8.52 of the Municipal Code. . In addition, future project would be required to implement the following mitigation measure, MM NOI-3.2.

Impact NOI-3: Future development's operational mechanical equipment could result in noise levels that exceed exterior noise levels at noise-sensitive receptors identified in Section 8.52.030 in the City's Municipal Code.

Mitigation Measure: Future projects will implement the following mitigation measure to reduce the impacts of operational mechanical equipment at noise-sensitive receptors to less than significant.

MM NOI-3.1: Future development projects within the Specific Plan area shall retain a qualified acoustical consultant to review mechanical equipment systems during final design of their proposed project consistent with standard City practice. The qualified acoustical consultant shall review selected equipment and determine specific noise reduction measures necessary to reduce noise to comply with the City's noise level requirements set forth in Section 8.52.320 of the City's Municipal Code. Noise reduction measures could include, but are not limited to, selection of equipment that emits low noise levels and/or installation of noise barriers, such as enclosures and parapet walls, to block the line-of-sight between the noise source and the nearest receptors. Additionally, enclosures and interior wall treatments shall be considered to reduce noise exposure within the on-site units. Alternate measures may include locating equipment in less noise-sensitive areas, where feasible.

With implementation of 2013 Specific Plan EIR Mitigation Measure NOI-3 and MM NOI-1.3, future development under the Specific Plan Update would reduce mechanical equipment noise impacts to a less than significant level by incorporating noise reductions measures and complying with the City's Municipal Code, consistent with the findings of the 2013 Specific Plan EIR. **(Less than Significant Impact with Mitigation Incorporated)**

(Significant and Unavoidable Impact)

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

The 2013 Specific Plan EIR concluded that construction activities implementing the Specific Plan would be located adjacent to existing structures, and depending on the proximity, structural soundness, and methods of construction, vibration levels caused by pile driving or other impact work may be high enough to damage existing structures. This was determined to result in a significant impact; however, that impact was found to be reduced to a less than significant level with implementation of Mitigation Measures NOI-4a and NOI-4b (see below). These two mitigation measures would reduce temporary construction vibration impacts by avoiding the use of high-impact equipment where feasible and requiring site-specific vibration studies if individual project would include vibration-generating activities in proximity to existing structures.

2013 Specific Plan EIR Mitigation Measure NOI-4a: The following measures, in addition to the best practices specified in Mitigation Measure NOI-5b, shall be followed to reduce vibration from construction activities and should be employed where feasible:

- Avoid impact pile driving, where feasible. Drilled piles cause lower vibration levels where geological conditions permit their use.
- Avoid using vibratory rollers and tampers near sensitive areas, where feasible.

2013 Specific Plan EIR Mitigation Measure NOI-4b: In areas where project construction is anticipated to include vibration-generating activities, such as pile driving, in close proximity to existing structures, site-specific vibration studies shall be conducted to determine the area of impact and to present appropriate mitigation measures that may include the following:

- Identify projects that would include vibration generating activities, such as pile driving and heavy construction equipment, which have the potential to generate high ground-borne vibration levels at, nearby vibration sensitive structures. Vibration limits appropriate to the type of use and building structure shall be applied to all vibration-sensitive structures located within 200 feet of the project. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no general consensus as to what amount of vibration may pose a threat for structural damage to the building.⁷⁷ However, the Federal Transit Administration’s (FTA) has established guidelines for transit and related construction projects, which are deemed appropriate for the type of projects expected in the Specific Plan Area. Therefore these criteria, as shown in Table 4.11-10, should be utilized to assess potential construction vibration impacts due to project implementation. This task shall be conducted by a qualified structural engineer.
- Develop a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted; set up a vibration monitoring schedule; define structure-specific vibration limits; and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. Construction contingencies shall be identified for when vibration levels approach the limits identified in Table 4.11-10.
- At a minimum, monitor vibration during initial demolition activities and during pile-driving activities. Monitoring results approaching the vibration thresholds shown in Table 4.11-10 may indicate the need for a more intensive measurement schedule and results significantly below the vibration thresholds may indicate a less intensive measurement schedule.

Table 4.11-10: Building Vibration Damage Criteria		
Vibration Level		
PPV (in/sec)	Approx. VdB ^a	Building Category
0.5	102	I. Reinforced-concrete, steel or timber (no plaster)
0.3	98	II. Engineered concrete and masonry (no plaster)
0.2	94	III. Non-engineered timber and masonry buildings
0.12	90	IV. Buildings extremely susceptible to vibration damage
^a RMS velocity in decibels (VdB) re 1 micro-inch/second		

⁷⁷ California Department of Transportation, Noise, Vibration, and Hazardous Waste Management Office, Sacramento, CA Transportation- and construction-induced vibration guidance manual. 2004, pg.15-18

- When vibration levels approach limits identified in Table 4.11-10, suspend construction and implement contingencies to either lower vibration levels or secure the affected structures.
- Conduct post-construction survey on structures where either monitoring has indicated high levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.

Construction activities associated with implementation of the Specific Plan Update would include grading, foundation work, paving, and new building framing and finishing, which could generate vibration if heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. General Plan Policy 6.4 limits vibration levels to 0.08 in/sec PPV at sensitive historic structures and to 0.30 in/sec PPV at buildings of normal conventional construction to reduce the potential for cosmetic damage. For the purposes of this analysis, groundborne vibration levels exceeding the conservative 0.08 in/sec PPV at historical buildings and 0.3 in/sec PPV limit at nonhistorical buildings would have the potential to result in a significant vibration impact.

Table 3.12-7 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet, as well as distances to the 0.08 in/sec PPV threshold for historical buildings and to the 0.25 in/sec PPV threshold for nonhistorical buildings.

Table 3.12-7: Vibration Source Levels for Construction Equipment				
Equipment		PPV at 25 ft. (in/sec)	Minimum Distance to Meet 0.08 in/sec PPV (feet)	Minimum Distance to Meet 0.3 in/sec PPV (feet)
Pile Drive (Impact)	Upper range	1.158	271	86
	Typical	0.644	160	51
Pile Driver (Sonic)	Upper range	0.734	180	57
	typical	0.170	48	15
Clam shovel drop		0.202	56	18
Hydromill (slurry wall)	in soil	0.008	3	1
	in rock	0.017	6	2
Vibratory Roller		0.210	58	19
Hoe Ram		0.089	27	9
Large bulldozer		0.089	27	9
Caisson drilling		0.089	27	9
Loaded trucks		0.076	23	8
Jackhammer		0.035	12	4
Small bulldozer		0.003	2	<1
Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, modified by Illingworth & Rodkin, Inc. January 2023.				

Depending on the proximity of existing structures to each construction site, the structural soundness of the existing buildings, and the methods of construction used, vibration levels may be high enough to damage existing structures. Given the scope of the proposed Specific Plan update and the location of Specific Plan area with respect to existing structures in the immediate vicinity (i.e., within 200 feet), groundborne vibration impacts would be potentially significant, which is consistent with the findings of the 2013 Specific Plan EIR.

To reduce potential groundborne vibration impacts, future projects under the proposed Specific Plan update would implement the mitigation measures previously identified in the 2013 Specific Plan EIR (Mitigation Measure NOI-4a and Mitigation Measure NOI-4b described above) and comply with the measures included in Policy 7.11 of the City’s General Plan (as described in Section

3.12.1.2). In addition, future projects under the Specific Plan Update would implement the following mitigation measure.

Impact NOI-4: Future construction activities could result in groundborne vibration levels exceeding 0.3 in/sec PPV limit at nonhistorical buildings, which would result in a significant vibration impact.

Mitigation Measure: The following mitigation measures would be incorporated to ensure groundborne vibration impacts are reduced to less than significant levels.

MM NOI-4.1: To address potential impacts related to vibration, the project will implement the following vibration controls in addition to the measures included in Policy 7.11 of the City's General Plan:

- Comply with the construction noise ordinance to limit hours of exposure. The City's Municipal Code allows construction activities between the hours 7:00 a.m. and 6:00 p.m. on weekdays and between 9:00 a.m. and 5:00 p.m. on Saturdays. Construction activity is not permitted on Sundays or national holidays.
- Prohibit the use of heavy vibration-generating construction equipment within 25 feet of residences. Use a smaller vibratory roller, such as the Caterpillar model CP433E vibratory compactor, when compacting materials within 25 feet of residences adjoining the site.
- Avoid dropping heavy equipment within 25 feet of residences. Use alternative methods for breaking up existing pavement, such as a pavement grinder, instead of dropping heavy objects within 25 feet of residences adjoining the site.
- The contractor shall alert heavy equipment operators to the close proximity of the adjacent structures so they can exercise extra care.
- For projects requiring impact or vibratory pile driving, a Construction Vibration Monitoring, Treatment, and Reporting Plan shall be implemented to document conditions prior to, during, and after vibration-generating construction activities. All plan tasks shall be undertaken under the direction of a licensed Professional Structural Engineer in the State of California and be in accordance with industry-accepted standard methods. The construction vibration monitoring plan shall include, but not be limited to, the following measures:
 - Document conditions at all structures located within 90 feet of pile driving activities and at historic structures located within 275 feet of pile driving activities prior to, during, and after vibration-generating construction activities. All plan tasks shall be

undertaken under the direction of a licensed Professional Structural Engineer in the State of California and be in accordance with industry-accepted standard methods.

Specifically:

- Vibration limits shall be applied to vibration-sensitive structures located within 90 feet of any high impact construction activities, such as pile driving, and 275 feet of historic buildings.
- Performance of a photo survey, elevation survey, and crack monitoring survey for each structure of normal construction within 90 feet of any high impact construction activities and each historic structure within 275 feet of pile driving activities. Surveys shall be performed prior to any construction activity, in regular intervals during construction, and after project completion, and shall include internal and external crack monitoring in structures, settlement, and distress, and shall document the condition of foundations, walls and other structural elements in the interior and exterior of said structures.
- Develop a vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted, set up a vibration monitoring schedule, define structure-specific vibration limits, and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. Construction contingencies shall be identified for when vibration levels approached the limits.
- At a minimum, vibration monitoring shall be conducted during all pile driving activities.
- If vibration levels approach limits, suspend construction and implement contingency measures to either lower vibration levels or secure the affected structures.
- 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.
- Conduct a post-construction survey on structures where either monitoring has indicated high vibration levels or complaints of damage has been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.

Given the Specific Plan Update Scenario 2 would allow more development, Scenario 2 could result in more overlapping construction activities for future developments, which would result in more construction vibration at adjacent properties, compared to Scenario 1. However, future individual projects (under both scenarios, including the multi-use path, with or without the loop road) would comply with General Plan Policy 7.11, which requires large or complex projects to prepare a construction noise logistics plan prior to the start of construction. This construction noise logistics plan would include measures identified in the General Plan to reduce groundborne vibration impacts. When prepared and implemented in conjunction with the above-listed measures in Mitigation Measure MM NOI-4.1, groundborne vibration impacts would be reduced to a less-than-significant level, which is consistent with the findings of the 2013 Specific Plan EIR.

(Less than Significant Impact with Mitigation Incorporated)

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?
-

The 2013 Specific Plan EIR concluded that although the 60 dBA CNEL noise contour from the Palo Alto Municipal Airport crosses over the eastern portion of the Specific Plan, the planned land uses for that area would consist of office and industrial uses which are considered Clearly Compatible with this level of environmental noise in the General Plan. Residential uses were proposed in the southeastern corner of the 2013 Specific Plan area (refer to Figure 2.2-4), however, the effects of aircraft noise levels (pertaining to the CLUP) on these residences were not addressed in the EIR

As shown on Palo Alto Airport Noise Contours Figure 3.12-3, the Specific Plan area aircraft noise levels in the southeastern portion of the Specific Plan area would be between 60 dB CNEL and 65 dB CNEL. The aircraft noise levels in the other portions of the Specific Plan area would be below 60 dB CNEL. Under the Specific Plan Update, medium/high-density residential uses are proposed in the southeastern portion of the Specific Plan area. Based on CLUP Policy N-5, residential construction will not be permitted in the area between the 60 dB CNEL contour boundary and the 65 dB CNEL contour boundary unless it can be demonstrated that the resulting interior sound level will be no greater than 45 dB CNEL. Based on the noise assessment completed for the Specific Plan Update (Appendix D of this Draft SEIR), standard residential construction materials provide exterior-to-interior noise level reduction of 15 dBA with windows partially open and 20 dBA with windows shut. Therefore, with a 20 dBA noise reduction with windows shut, residential land uses in areas between 60 dB and 65 dB CNEL would have interior noise levels no greater than 45 dB CNEL, consistent with CLUP Policy N-5. Residential development in these areas would require mechanical ventilation to allow for future occupants to keep windows shut.

Interior noise levels at office, commercial, and industrial buildings during daytime operational hours would be below the City's 45 dBA $L_{eq(12)}$ threshold, and residential interiors would meet the threshold with windows shut. The office, employment center, and industrial uses within the

southeastern portion of the Specific Plan area would not be exposed to excessive noise levels since aircraft noise in these areas would not exceed 65 db CNEL. Therefore, implementation of the Specific Plan Update would not expose people residing or working in the Specific Plan area to excessive noise levels, resulting in a less than significant noise impact.

As discussed in Section 2.3, Project Description, under both buildout scenarios, the Specific Plan Update would allow for residential uses in more zones/parcels than what is allowed under the 2013 Specific Plan. Since the Specific Plan area remains outside of the Palo Alto Municipal Airport 65 dBA CNEL noise contour, the exterior noise threshold of 65 dBA CNEL for residential uses would not be exceeded. In addition, the exterior noise thresholds for all other uses would not be exceeded due to aircraft activity.

Future projects would comply with Palo Alto Airport CLUP policies described in Section 3.12.1. For the above reasons, future projects under the Specific Plan Update would not expose people residing or working in the project area to excessive noise levels due to proximity to Palo Alto Airport. This would be the same impact identified in the 2013 Specific Plan EIR.

(Less than Significant Impact)

3.12.2.2 *Cumulative Impacts*

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

The 2013 Specific Plan EIR concluded that buildout of the Specific Plan could result in cumulative operational noise impacts related to project generated traffic and a potential new rail line (Dumbarton Rail Corridor). The 2013 Specific EIR concluded that with implementation of Mitigation Measure NOI-CUM-1 (see below), operational noise levels can be reduced to a less than significant level through sound barriers and mechanical ventilation.

2013 Specific Plan EIR Mitigation Measure NOI-CUM-1:

In areas where existing residential development would be exposed to a CNEL of greater than 60 dBA due to Loop Road traffic and/or Dumbarton Rail project noise, site-specific noise studies shall be conducted to determine the area of impact and to provide appropriate mitigation measures, which may include the following:

- Conduct area-specific noise studies to determine the need for sound walls, or sound walls in combination with earthen berms, to reduce noise levels to 60 dBA CNEL or less in rear yards of homes adjacent to the loop road.
- Utilize roadway and site planning in the loop road design and layout to minimize noise in adjacent residential outdoor activity areas through the use of increased distances to these areas or the placement of intervening earthen berms.

- If 60 dBA CNEL or less is not achieved in rear yards, mechanical ventilation shall be provided in the affected residences so that windows can remain closed at the choice of the occupants to maintain interior noise levels below 45 dBA CNEL as per the requirements of the City's Noise Ordinance.

As discussed in Section 3.12.2, traffic noise levels would only increase by two (2) dBA on the loop road segments for Scenarios 1 and 2. As a result, traffic noise from the loop road would not result in a significant noise increase. Therefore, the Specific Plan Scenarios 1 and 2 would not require the implementation of 2013 Specific Plan Mitigation Measure NOI-CUM-1 given the two Specific Plan Update scenarios would not result in a significant noise increase, i.e. an increase in traffic noise by three dBA or more.

Construction and Vibration Noise

The geographic area for cumulative construction and vibration noise impacts are locations within 500 feet of the Specific Plan, as beyond that distance, construction noise and vibration from other developments would not be substantial and have the potential to combine with other noise sources. As described under Impact NOI-1, future development under the Specific Plan update would comply with Section 8.52.350-E of the City's Municipal Code, which limits days and hours allowed for construction activity and Mitigation Measure MM NOI-1.1, which requires adherence to the City's Municipal Code and implementation of a construction noise logistics plan that includes best management practices to ensure construction noise would have a less than significant impact on noise receptors. As discussed under Impact NOI-2, future projects would implement MM NOI-2.1, which requires individual projects to prohibit the use of heavy vibration-generating construction equipment within 25 feet of residences and develop a Construction Vibration Monitoring, Treatment, and Reporting Plan for projects that require vibratory pile driving. Therefore, implementation of the proposed Specific Plan update (under either development scenario) would not result in a cumulatively considerable contribution to a significant cumulative construction noise or vibration impact to noise-sensitive receptors or adjacent structures.

(Less than Significant Cumulative Impact with Mitigation Incorporated)

Operational Noise

Traffic Noise

The geographic area for cumulative traffic noise impacts is the surrounding roadway network. As discussed under Impact NOI-1 and shown in Table above, the Specific Plan update (under either development scenario) would increase noise levels by one dBA CNEL above cumulative no project (i.e. approved 2013 Specific Plan buildout along with General Plan buildout and other foreseeable growth through 2040) conditions along two Bay Road segments. Therefore, buildout of the Specific Plan update (under either development scenario) would result in a cumulatively considerable contribution to a substantial increase in overall traffic noise at these Bay Road segments. Future development projects would implement 2013 Specific Plan Mitigation Measure NOI-CUM-1 and

MM NOI-1.2, which would require site-specific acoustical analysis and installation of noise barriers and traffic calming; however, implementation of such noise reduction measures cannot be guaranteed, i.e. may not be feasible, along the affected roadways segments. Thus, the impact would remain significant and unavoidable (under either development scenario).

(Significant and Unavoidable Cumulative Impact)

Mechanical Equipment Noise

The geographic areas for cumulative mechanical equipment noise are locations adjacent to the Specific Plan area. As described under Impact NOI-1, future development under the Specific Plan update (under either development scenario) would comply with Section 8.52.320 of the City's Municipal Code and implement the 2013 Specific Plan EIR Mitigation Measure NOI-3 and MM NOI-1.2 to ensure operational mechanical equipment noise levels do not exceed the exterior noise thresholds in Table. Therefore, implementation of the proposed Specific Plan update (under either development scenario) would not result in a cumulatively considerable contribution to a significant cumulative mechanical equipment noise impact to residential noise receptors, consistent with the 2013 Specific Plan EIR.

(Less than Significant Cumulative Impact with Mitigation Incorporated)

Airport Noise

The geographic area for cumulative airport noise impacts is the Palo Alto Airport CLUP AIA. All future cumulative projects within the AIA would be subject to the CLUP and comply with applicable policies to reduce airport-related noise impacts to less than significant. As described under Impact NOI-3, future development under the Specific Plan Update would comply with the CLUP noise compatibility policies. Therefore, implementation of the Specific Plan Update would not result in a cumulatively considerable contribution to a significant cumulative aircraft noise impact to people working and residing within the Palo Alto Airport CLUP AIA.

(Less than Significant Cumulative Impact)

3.12.3 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 East Palo Alto has policies such as General Plan Policies SN-6.1, SN-6.2, and SN-7.7 that address existing noise conditions affecting a proposed project.

Future Exterior Noise Environment

Noise produced by vehicular traffic within the Specific Plan area could potentially expose the proposed land uses to levels exceeding the exterior compatibility thresholds. Future exterior noise levels at a distance of 75 feet from the centerline of the primary roadways within the Specific Plan area were modeled (see Table 8 and Table 9 of Appendix E) and would range from 58 dBA CNEL to 67 dBA CNEL for the no Loop Road Scenario 2 and from 59 dBA CNEL to 67 dBA CNEL for the with loop road Scenario 2.⁷⁸ The 2013 Specific Plan EIR included the following mitigation measure to reduce noise impacts on new residential developments.

2013 Specific Plan EIR Mitigation Measure NOI-1: In areas where new residential development would be exposed to a CNEL of greater than 60 dBA, site-specific noise studies shall be conducted to determine the area of impact and to present appropriate mitigation measures, which may include the following:

- Minimize noise in shared residential outdoor activity areas by locating the areas behind buildings or in courtyards, or by orienting the terraces to alleyways rather than streets, wherever possible.
- Provide mechanical ventilation in conformance with UBC requirements and specified in the General Plan, in all residential units proposed along roadways or in areas where noise levels could exceed 60 dBA CNEL so that windows can remain closed at the choice of the occupants to maintain interior noise levels below 45 dBA CNEL.
- Install sound-rated windows and use appropriate construction methods to provide the requisite noise control for residential units proposed along roadways or in areas where noise levels could exceed 70 dBA CNEL.

In addition, future development projects would be subject to General Plan Policy SN-7.7, which utilizes site design review to identify potential noise impacts on new development and encourages the use of noise barriers, setbacks, or other buffers. With implementation of 2013 Specific Plan Mitigation Measure NOI-1 and compliance with General Plan Policy SN-7.7, future projects under the Specific Plan update would meet the City's exterior noise standards.

Future Interior Noise Environment

As discussed above, future development could be exposed to noise levels up to 68 dBA CNEL. The interior noise standard for residential uses is 45 dBA CNEL. Standard residential construction provides approximately 15 dBA of noise reduction. When exterior noise levels range from 60 to 65 dBA CNEL, forced-air mechanical ventilation is needed to meet interior residential noise standards. In areas where exterior noise exceeds 65 dBA CNEL, sound-rated construction methods are typically required to meet interior noise thresholds.

⁷⁸ Scenario 2 includes more development and vehicular traffic than Scenario 1; therefore, Scenario 2 is analyzed as the most conservative development assumption.

Although the effects of the noise environment on future projects under the Specific Plan Update are not considered an impact under CEQA, future project applicants shall comply with this measure as a condition of approval to ensure future project occupants are not exposed to substantial noise levels.

The interior noise standard for office, commercial, and industrial uses ranges from 50 to 65 dBA $L_{eq(12)}$. Standard office, commercial, and industrial construction provides approximately 25 dBA noise reduction. The inclusion of a forced-air mechanical ventilation system would provide an additional five dBA reduction. The combination of standard building construction and forced-air mechanical ventilation would reduce interior noise levels of office, commercial, and industrial uses to within the City's 50 to 65 dBA $L_{eq(12)}$ standard.

To reduce future exterior and interior noise levels in the Specific Plan area, future developments under the Specific Plan Update (Scenarios 1 and 2, with or without the loop road) shall implement the following Specific Plan Update Policies LU-4.10 and LU.4.11. These policies would replace 2013 Specific Plan EIR Mitigation Measure NOI-1, as it includes requirements for all land uses within the Specific Plan area while, the 2013 Specific Plan EIR Mitigation Measure NOI-1 was limited to residential uses.

Proposed Specific Plan Update Policies:

- **Policy LU-4.10:** When project-level development information, such as site plans, building elevations, floor plans, and the position of buildings and outdoor use areas within the Specific Plan area are known, site-specific project-level acoustical studies shall be completed by future project applicants, subject to City approval. An acoustical study shall be completed, by future project applicants' qualified acoustical consultants, when an application is received for a development project that could be exposed to noise greater than that deemed acceptable by the maximum noise levels specified in Table 10-1 of the City of East Palo Alto's General Plan for any given land use proposed on a site. The study shall determine compliance with the noise and land use compatibility standards, identify potential noise impacts, and propose site-specific measures to reduce exposure to exterior and interior noise levels that exceed maximum permissible levels.
- **Policy LU-4.11:** A project-specific acoustical analysis shall be prepared by future project applicants' qualified acoustical consultants, in compliance with State Building Codes and City noise standards, to ensure that the design incorporates controls to reduce interior noise levels to 45 dBA CNEL or lower within the residential units and to 45 to 65 dBA $L_{eq(12)}$ or lower, depending on the specific land use, within nonresidential interiors. The future project applicants shall conform with any special building construction techniques requested by the City's Building Department, which may include sound-rated windows and doors, sound-rated wall constructions, and acoustical caulking.

3.13 Population and Housing

3.13.1 Environmental Setting

3.13.1.1 *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.⁷⁹ The City of East Palo Alto's Housing Element and related land use policies were adopted by City Council on March 19, 2024, and approved and certified by the California Department of Housing and Community Development (HCD) on April 29, 2024.

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.⁸⁰

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

⁷⁹ California Department of Housing and Community Development. "Regional Housing Needs Allocation and Housing Elements" Accessed August 1, 2022. <http://hcd.ca.gov/community-development/housing-element/index.shtml>.

⁸⁰ Association of Bay Area Governments and Metropolitan Transportation Commission. *Plan Bay Area 2050*. October 21, 2021. Page 20.

technical overview of the of the growth forecasts and land use models upon which Plan Bay Area 2050 is based.

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating population and housing impacts resulting from planned development within the City, including the following:

Policy	Description
<i>Land Use and Urban Design</i>	
2.1	Jobs-housing balance. Strive for a balanced land use pattern that has a 1 to 1 ratio of jobs per employed residents.
2.3	Ravenswood TOD Specific Plan Area. Prioritize the redevelopment of the Ravenswood TOD area according to the Specific Plan. This area represents a great opportunity for significantly improving the jobs-housing balance in the City.
3.1	Infill housing. Encourage new infill housing in residential and mixed use areas of the City in order to expand the amount and diversity of housing.
3.2	Balanced housing. Over time, establish a balance of market rate and affordable housing in East Palo Alto. To achieve this policy, encourage both market rate and affordable housing.
3.4	No net loss in housing. Require no net loss in the number of residential units during reconstruction or renovation.
3.7	Regional housing needs. Accommodate the City’s share of regional housing needs to help address the housing shortage in the Bay Area and Silicon Valley sub-region.
3.8	<p>Replacement housing. There are three options for providing the required replacement affordable housing:</p> <ul style="list-style-type: none"> <li>• First, for replacement rent stabilization ordinance (RSO) units, replace the RSO units on a 1 for 1 basis with new deed restricted RSO units with the same number of bedrooms. The rent at the new deed restricted RSO units occupied by returning tenants who were originally displaced by the development shall be equivalent to the prior rent plus annual certified increases. <li>• Two, contribute land and additional local gap financing for the development of new income restricted units. Developer shall provide land sufficient to develop an equivalent number of units (and bedrooms), based on existing zoning densities. Developer shall also contribute additional local gap financing in an amount determined on a project by project basis, or upon a Policy or Master Plan adopted by the City Council. The amount of additional local gap financing shall take into account the average median income of the project, the type of tax credits, the in-lieu fee generated by the overall project, and other financial aspects. To preserve the affordability for perpetuity, the City shall own the land. The City shall issue an RFP for affordable housing developers to develop the projects on the land.

- Three, a combination of options One and Two.

- 4.1 **Diversity of building types.** Encourage a diversity of building types and styles in areas designated for multi-family housing. These building types should range from duplex/triplex/fourplex to courtyard housing to multi-family housing developments. The diversity of building types will respond to the diversity of the City of East Palo Alto’s population and the desire to create interesting and varied neighborhoods.
- 4.2 **Intensification.** Require that development projects maximize the number of residential units in the redevelopment of parcels in areas designated for Medium Density, High Density and Urban Residential.
-

3.13.1.2 Existing Conditions

Population and Employment

In 2023, the City of East Palo Alto had an approximate resident population of 28,586, with an average of 3.71 persons per household, and total household number of 7,656.⁸¹ ABAG estimates that for 2040, the City’s projected population would be 35,890 residents in 8,675 households and jobs in the City will increase from approximately 5,810 (2020) to 6,660 in 2040.⁸² According to Plan Bay Area 2050, the South San Mateo County area (which includes the City of East Palo Alto, Atherton, Menlo Park, Redwood City, Woodside, Portola Valley, and San Carlos) is projected to have a total of 106,000 households and 196,000 jobs by 2050.⁸³

The Specific Plan area is currently developed with 125,000 square feet of office space, 200,000 square feet of retail, 75,000 square feet of civic/community, and 25,000 square feet of tenant amenity space. The Specific Plan area also contains 248 multi-family units and 102 single-family attached units (refer to Table 2.3-1). The existing development within the Specific Plan provides has approximately 1,166 residents and provides approximately 1,348 jobs (refer to Table 3.13-1 for the existing residents and jobs calculations).

Jobs Housing Balance

The jobs-housing balance represents the number of jobs divided by the number of housing units. A jobs-housing balance number of one indicates a community with the same number of jobs as housing units. Numbers greater than one indicate a jobs-rich community and below one indicates a shortage of jobs in that community. A low jobs-housing balance can also indicate that most people living in the community travel beyond their community for employment. East Palo Alto’s jobs-housing balance number in recent years has been 0.35.⁸⁴

⁸¹ California Department of Finance. *E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011 – 2021 with 2020 Census Benchmark*. May 2021.

⁸² Association of Bay Area Governments. “Plan Bay Area Projections 2040.” Accessed August 1, 2022. <http://projections.planbayarea.org/data>.

⁸³ Plan Bay Area 2050. *Growth Pattern*. January 21, 2021. Page 1.

⁸⁴ City of East Palo Alto. *Revised East Palo Alto Housing Element*. December 2023.

3.13.2 Impact Discussion

For the purpose of determining the significance of the project's impact on population and housing, would the project:

- 1) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
- 2) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

3.13.2.1 *Project Impacts*

- a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
-

The 2013 Specific Plan EIR concluded that buildout of the 2013 Specific Plan result in 835 residential units and approximately 1.4 million square feet of commercial, industrial, or office uses resulting in approximately 2,781 net new residents and 5,450 net new employees compared to the existing conditions, as well as potential indirect population growth from new employees moving to the area to be closer to their jobs. However, this growth is within ABAG's population projections and less than one percent over ABAG's employment projections for the area therefore, it was not considered substantial unplanned population growth and impacts were found to be less than significant.

Direct Impact

Table 3.13-1 below provides a summary of the number of households, residents, employment square footage, and jobs/employees estimated under existing conditions, the adopted Specific Plan, and Specific Plan Update. The Specific Plan Update would result in a net increase in residents and jobs compared to existing conditions and compared to what is projected under the buildout of the adopted Specific Plan.

Table 3.13-1: Estimated Ravenswood Residents and Employees under Existing, Adopted Specific Plan, and Proposed Specific Plan Update Conditions

Development Scenarios	Households	Residents ^a	Jobs ^b
A. Existing Conditions	350	1,166	1,348
B. Adopted 2013 Specific Plan Buildout ^c (2013 Specific Plan + Existing)	1,185	3,946	6,798
C. Proposed Specific Plan Buildout Scenario #1 ^d (Scenario 1 + Existing)	1,700	5,688	11,329
D. Proposed Specific Plan Buildout Scenario #2 ^e (Scenario 2 + Existing)	1,950	6,510	13,024
E. Existing Development/ Residents/Jobs to be Replaced from Redevelopment of Existing conditions for 2013 Specific Plan and Specific Plan Update Scenarios 1 and 2 ^f	100	333	340
Net Increase 2013 Specific Plan (B-A) – (E)	+735	+2,447	+5,110
F. Net Increase Specific Plan Update Scenario #1 (C-A) –(E)	+1,250	+4,189	+9,641
G. Net Increase Specific Plan Update Scenario #2 (D-A) –(E)	+1,500	+5,011	+11,336

Notes:

The below resident and employment are consistent with ratios used in Appendix E Transportation Analysis of this Draft SEIR.

^a Number of Residents (Existing Uses) = 3.33 persons per households x Number of residential units (350) = 1,166 residents

Number of residents (2013 Specific Plan) = 3.33 persons per households x Number of residential units (835) = 2,781 residents

Number of residents (Scenario 1) = 3.35 persons per households x Number of residential units (1,350) = 4,522

Number of residents (Scenario 2) = 3.34 persons per households x Number of residential units (1,600) = 5,344

^b Office = 3.33 employees/1,000 square feet

R&D = 2.75 employees/1,000 square feet

Light industrial = 1.75 employees/1,000 square feet

Retail and civic = 2.5 employees/1,000 square feet

Amenity = 1.0 employee per 1,000 square feet

Table 3.13-1: Estimated Ravenswood Residents and Employees under Existing, Adopted Specific Plan, and Proposed Specific Plan Update Conditions

Development Scenarios	Households	Residents ^a	Jobs ^b
<p>Existing jobs = 416 office jobs + 219 light industrial jobs + 500 retail jobs + 188 civic jobs +25 amenity jobs = 1,348 jobs</p> <p>- Of the 416 office jobs, 109 of these jobs are associated with the 32,650 s.f. Ravenswood Health Center, constructed under the 2013 Specific Plan.</p> <p>- Of the 188 existing civic jobs, 63 of these jobs are associated with the 25,000 s.f. EPACenter, constructed under the 2013 Specific Plan.</p> <p>^c 2013 Specific Plan Buildout = Existing conditions + 2013 Specific Plan additional residents/employees</p> <p>2013 Specific Plan Buildout Households = 350 existing households + 835 households (additional households allowed under the 2013 Specific Plan) = 1,185 households</p> <p>2013 Specific Plan Buildout Residents = 1,166 existing residents +2,781 (additional residents under the 2013 Specific Plan) = 3,947residents</p> <p>2013 Specific Plan Buildout Jobs = 1,348 existing jobs + 5,450 adopted 2013 Specific Plan jobs added (4,224 office jobs + 484 R&D jobs + 308 industrial jobs + 281 retail jobs + 153 civic jobs + 0 tenant amenity jobs) = 6,798 jobs</p> <p>^d Specific Plan Update (SPU) Scenario 1 Buildout = Existing conditions + Specific Plan Update Scenario#1 additional residents/employees</p> <p>SPU Scenario 1 Buildout Households = 350 existing households + 1,350 SPU Scenario 1 additional houses allowed = 1,700 households</p> <p>SPU Scenario 1 Buildout Residents = 1,166 existing residents + 4,522 SPU #1 added residents = 5,688 residents</p> <p>SPU Scenario 1 Buildout Jobs = 1,348 existing jobs + 9,981 SPU #1 added jobs allowed (6,113 office jobs + 2718 R&D jobs + 438 industrial jobs + 281 retail jobs +387 civic+44 amenity jobs) = 11,329 jobs</p> <p>^e SPU Scenario 2 Buildout = Existing conditions + Specific Plan Update Scenario#1 additional residents/employees</p> <p>SPU Scenario 2 Buildout Households = 350 existing households + 1,600 SPU Scenario 2 additional houses allowed = 1,950 households</p> <p>SPU Scenario 2 Buildout Residents = 1,166 existing residents + 5,344 SPU #1 added residents = 6,510 residents</p> <p>SPU Scenario 2 Buildout Jobs = 1,348 existing jobs + 11,676 SPU #2 added jobs allowed (7,219 office 3,210 R&D jobs + 525 industrial jobs+ 281 retail jobs +387 civic+54 amenity jobs) = 13,024 jobs</p> <p>^f 100 existing multi-family units to be redeveloped (see Table 2.3-1)</p> <p>3.33 persons * 100 multi-family units = 347 existing residents</p> <p>65,000 square feet of office (existing conditions to be redeveloped). (3.33 employees x 65,000 square feet)/1,000 square feet = 216 office employees</p> <p>35,000 square feet of industrial to be redeveloped. (1.75 employees x 35,000 square feet of industrial)/1,000 square feet = 61 employees</p> <p>25,000 square feet of retail to be redeveloped = (2.5 employees x 25,000 square feet of retail)/1,000 square feet = 63 employees</p> <p>100,000 square feet of existing office/R&D/industrial will be redeveloped and 25,000 square feet of existing retail will be redeveloped.</p> <p>(100,000 square ft. office/R&D/industrial * one employee/333 square feet) + (25,000 square feet of retail * one employee per 400 square feet) = 363 jobs</p>			

The Specific Plan Update (under both development scenarios, with the loop road and multi-use trail) would result in increased population and jobs growth within the Specific Plan area. The possible loop road or multi-use trail options would not affect the population projections for the Specific Plan Update. Under Scenario 1, the project would add 1,250 residential units, approximately 4,190 residents, and 9,645 jobs compared to existing conditions. Also, Scenario 2 would add 1,500 residential units, 5,015 residents, and 11,340 jobs, compared to existing conditions.

Buildout of the City's General Plan is estimated to result in a net increase of approximately 5,610 residents and approximately 2,670 jobs (without the adopted 2013 Specific Plan). As described above in Section 3.13.1.2 Existing Conditions, the City was projected to have a population of 35,890 residents and 6,660 jobs in 2040 (including buildout of the General Plan). Table 3.13-2 shows the increase in General Plan growth plus growth from the Specific Plan Update (under both development scenarios). Buildout of the Specific Plan Update would result in population and job growth beyond what was projected in the General Plan.

Table 3.13-2: Projected Growth Citywide			
	Households	Residents/ Population	Jobs
A. General Plan Update Buildout (without the 2013 Specific Plan development) ^a	1,684	5,607 ^b	2,897
B. Net Increase from 2013 Specific Plan	735	2,447	5,110
C. Net Increase from Specific Plan Update (Scenario #1) ^c	1,250	4,189	9,641
D. Net Increase from Specific Plan Update (Scenario #2) ^c	1,500	5,011	11,336
<i>Total (A+B) 2013 Specific Plan</i>	2,419	8,054	8,007
<i>Total (A+C) Scenario 1</i>	2,934	9,796	12,538
<i>Total (A+D) Scenario 2</i>	3,184	10,618	14,233
Notes:			
^a Refer to Table 3-3 Anticipated Growth Under General Plan Update in the City's 2016 General Plan EIR Assumed 1,684 households, 704,000 sf of office/R&D, and 221,006 sf of retail without 2013 Specific Plan 2,344 office/R&D jobs (using office ratio of 3.33 of employees per 1,000 square feet) +553 retail jobs = 2,897 jobs under General Plan Update Office = 3.33 employees per 1,000 square feet Retail = 2.5 employees/1,000 square feet ^b Number of Residents = 3.33 persons per unit * General Plan net increase in households (1,684) = 5,607 residents ^c Refer to Table 3.13-1 in this Draft SEIR.			

Population employment projections and projections at the city-level are not provided in Plan Bay Area 2050. The updated Plan Bay Area 2050 projections for the South San Mateo County area (which includes the City of East Palo Alto, Atherton, Menlo Park, Redwood City, Woodside, Portola Valley, and San Carlos) are projected to have a total of 106,000 households and 196,000 jobs by 2050.⁸⁵ In general, growth is estimated to continue and the amount of development that would result from the Specific Plan Update reflects and accommodates that projected growth. The Specific Plan Update is consistent with the goals of Plan Bay Area 2050 by:

- Providing affordable housing options;
- Creating additional employment opportunities within the City and regionally;
- Conserving natural resources and contributing additional parks/open space and recreation areas within the City; and

⁸⁵ Plan Bay Area 2050. *Growth Pattern*. January 21, 2021. Page 1.

- Increasing connectivity by improving transportation infrastructure.

In addition, the project would be consistent with the City's General Plan policies identified in Section 3.13.1.1 Regulatory Framework by:

- Maximizing an opportunity for higher-density housing;
- Improving the jobs-housing imbalance
- Encouraging new infill housing in residential and mixed-use areas
- Allowing no net loss of housing

Although Specific Plan Update Scenarios 1 and 2 would exceed the projections of the 2016 General Plan Update, based on the above reasons, the Specific Plan Update (development scenarios 1 and 2, with and without the loop road) is consistent with growth projected in the City as part of the southern San Mateo County growth included in Plan Bay Area 2050 and would not result in substantial unplanned population growth.

(Less than Significant Impact)

-
- b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?
-

The 2013 Specific Plan EIR concluded that buildout of the 2013 Specific Plan would not result in displacement of a substantial number of existing residents or housing because the Specific Plan would ensure that any housing units displaced would be replaced with residential units at the same or at an increased density. Therefore, the 2013 Specific Plan EIR concluded less than significant impact.

As discussed in Section 2.3 Project Description, the Specific Plan Update (under both development scenarios) would allow for increased non-residential development on parcels in the Specific Plan area that are already zoned for such non-residential uses and would allow for increased residential uses on parcels zoned for residential and non-residential uses. The Specific Plan Update would allow for the redevelopment of up to 100 multi-family residential units located in the southeast section of the Specific Plan area into Urban Residential and Mixed Use developments, which allows for higher density housing (refer to Figure 3.13-1). Consistent with General Plan Policy LU-3.4, the Specific Plan Update would not result in a net loss of housing. Although redevelopment could result in the removal of existing multi-family residences, the Specific Plan Update would replace the multi-family residences removed with more housing (an additional 1,250 units [1,170 multi-family units and 80 single-family units] under Scenario 1 and 1,500 units [1,372 multi-family units and 128 single-family units] under Scenario 2). Residents in existing units within the Specific Plan area that are displaced by future redevelopment under the Specific Plan Update would be subject to tenant protections under the City's Municipal Code Chapter 14 and state law as applicable.

Future development under the Specific Plan Update would not include the conversion of residential uses to non-residential uses. In addition, the Specific Plan Update will be consistent with the City's Inclusionary Housing Ordinance which requires market-rate developments of five or more units to have 20 percent of the on-site units be affordable (below market rate). As a result, the Specific Plan Update would include at least 270 affordable units under Scenario 1 and 320 affordable units under Scenario 2. Further, in accordance with General Plan Policy 3.8, Replacement Housing, future developments under the Specific Plan Update would replace existing affordable units with new affordable units at a one-to-one ratio. For these reasons, the Specific Plan Update would not directly displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

(Less than Significant Impact)

3.13.2.2 *Cumulative Impacts*

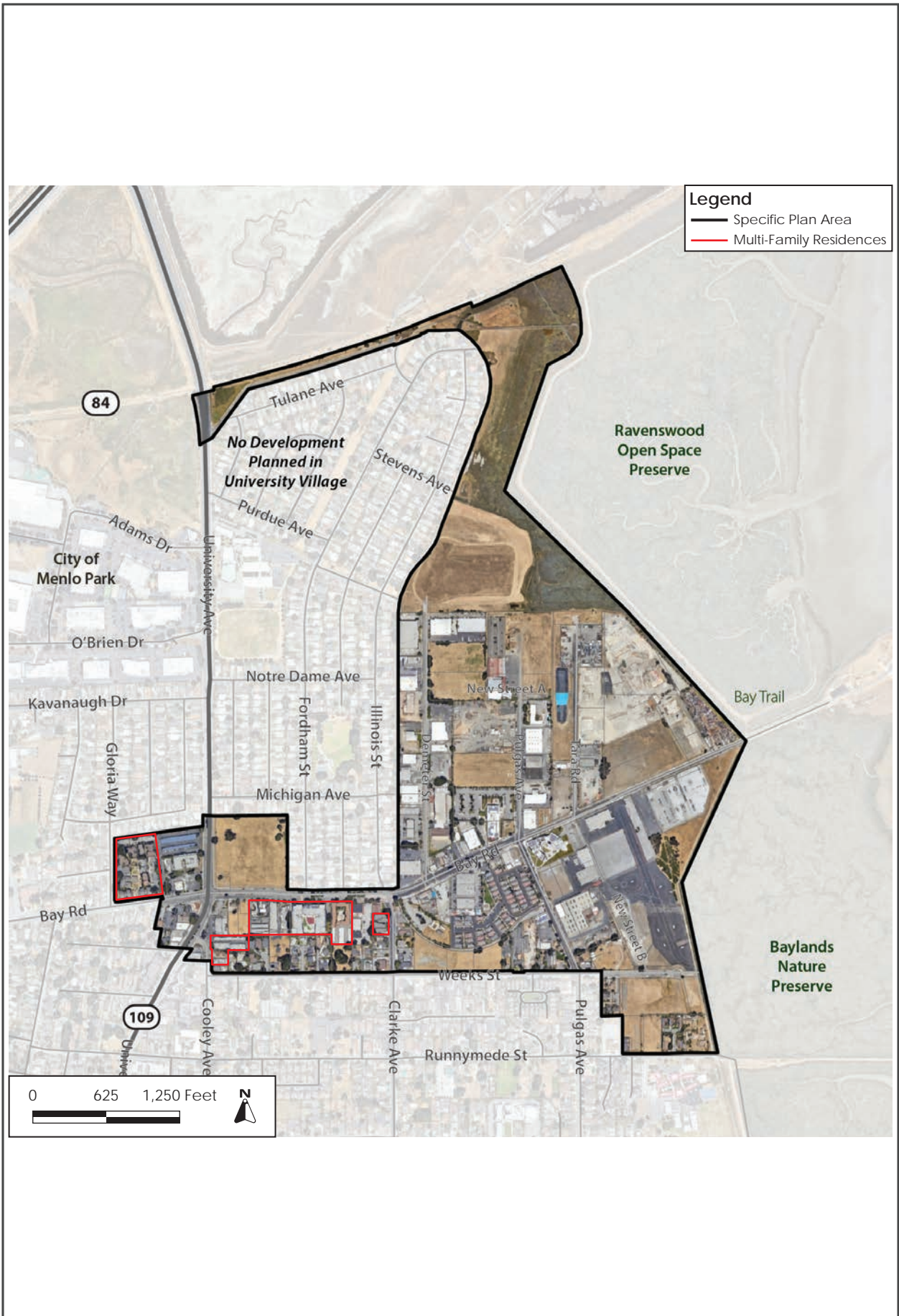
Would the project result in a cumulatively considerable contribution to a cumulatively significant population and housing impact?

Cumulative Unplanned Population Growth Impacts

The 2013 Specific Plan EIR concluded that the bulk of foreseeable growth in East Palo Alto will be concentrated in the Specific Plan area and that projected growth in housing units and population for the Specific Plan area would be well within the ABAG's housing and population projections for the San Mateo County. Therefore, implementation of the 2013 Specific Plan would not result in a cumulatively considerable inducement of growth.

Consistent with the 2013 Specific Plan EIR, the proposed Specific Plan Update (under both development scenarios) would result in direct and indirect population growth, however this growth would be within the ABAG projections for the southern San Mateo County region included in Plan Bay Area 2050. Therefore, implementation of the proposed Specific Plan Update (under both development scenarios, with and without the loop road) would not result in a cumulatively considerable contribution to a significant cumulative population and housing impact.

(Less than Significant Cumulative Impact)



MULTI-FAMILY RESIDENCES TO BE POTENTIALLY REPLACED BY HIGHER DENSITY RESIDENCES | FIGURE 3.13-1

Cumulative Displacement Impacts

The 2013 Specific Plan EIR concluded that development allowed under the Specific Plan could result in displacement of existing residents and dwelling units, however, there would be a net increase of approximately 816 housing units, and the cumulative impact of the Specific Plan in combination with other reasonably foreseeable development would be less than significant.

The Specific Plan Update, under both scenarios, would increase allowed non-residential development within the Specific Plan area; however, it would not involve the conversion of residential uses to non-residential uses or otherwise result in substantial displacement of existing people or housing necessitating construction of replacement housing elsewhere. As discussed above, the Specific Plan Update would allow for the redevelopment of up to 100 multi-family residential units located in the southeast section of the Specific Plan area into Urban Residential and Mixed Use developments, which allows for higher density housing (refer to Figure 3.13-1). Consistent with General Plan Policy 3.4, the Specific Plan Update would not result in a net loss of housing. Although redevelopment could result in the removal of existing multi-family residences, the Specific Plan Update would replace the 100 multi-family residences removed with more housing (an additional 1,250 units [1,170 multi-family units and 80 single-family units] under Scenario 1 and 1,500 units [1,372 multi-family units and 128 single-family units] under Scenario 2). Therefore, the Specific Plan Update would not contribute to a cumulative loss of housing necessitating the construction of replacement housing elsewhere.

(Less than Significant Cumulative Impact)

3.14 Public Services

3.14.1 Environmental Setting

3.14.1.1 *Regulatory Framework*

State

Government Code Section 66477

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

Government Code Section 65995 through 65998

California Government Code Section 65996 specifies that an acceptable method of offsetting a project's effect on the adequacy of school facilities is the payment of a school impact fee prior to the issuance of a building permit. Government Code Sections 65995 through 65998 set forth provisions for the payment of school impact fees by new development by "mitigating impacts on school facilities that occur (as a result of the planning, use, or development of real property" (Section 65996[a]). The legislation states that the payment of school impact fees "are hereby deemed to provide full and complete school facilities mitigation" under CEQA (Section 65996[b]).

Developers are required to pay a school impact fee to the school district to offset the increased demands on school facilities caused by the proposed residential development project. The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Regional and Local

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating impacts to public services resulting from planned development within the City, including the following:

Policy	Description
<i>Economic Development</i>	
3.1	New development. Require new development to pay its fair share of required improvements to public facilities and services through impact fees or other financial and regulatory mechanisms.
3.3	Supporting infrastructure and public services. Require new development projects to provide supporting infrastructure and public services that contribute to an overall improvement in the quality of life in the City.
<i>Infrastructure, Services, and Facilities</i>	
5.1	Impact fees. Collect nexus-based impact fees that mitigate the cost of providing infrastructure and public facilities to serve new development.
7.10	Libraries. Coordinate with San Mateo County to provide library services for the community, aiming to provide approximately 750 square feet of equipped and staffed library space per 1,000 residents.
10.3	Fire and emergency services. Continue to coordinate with MPFPD to ensure excellent fire and emergency services.
10.4	Excellent police service. Strive to continuously improve the performance and efficiency of the East Palo Alto Police Department.
<i>Transportation</i>	
1.5	Coordination with public safety. Ensure that the Menlo Park Fire Protection District (MPFPD) and the City’s Police Department review construction plans for roadway modifications, internal circulation, and establish, if needed, temporary alternative emergency routes to be used the duration of any construction project. During design review, ensure that roads and driveways are established that meet applicable code requirements for emergency access, potentially including signal preemption mechanisms. Ensure that the MPFPD reviews related building plans for compliance with the Fire Code and establishes a future inspection schedule for continued compliance. Continue the existing practice of informing the MPFPD and the Police Department of projects and proactively engaging with the MPFPD and the Police Department through the Development Review Committee (DRC) and the plan check process.

Parks, Open Space, and Conservation

- 1.1 **New parks and open space.** Maintain a park standard of 3 acres per 1,000 residents. Undertake a program to add 79 acres of new formalized park spaces, prioritizing the areas of the City currently underserved by parks (Weeks, Kavanaugh, Willow, and Woodland).
-

East Palo Alto Park Master Plan

In March 2023, the City of East Palo Alto adopted a Parks Master Plan to guide the City's park improvements. The Parks Master Plan was developed to evaluate the areas of improvement of the existing parks, to prioritize the community's parks and recreation needs, and to recommend best practices for future growth of parks in terms of capital improvements, recreational programming, funding, and operations and maintenance practices.

3.14.1.2 *Existing Conditions*

Fire Protection Services

MPFD provides fire protection and emergency medical services to the City of East Palo Alto as well as the City of Menlo Park and the Town of Atherton.⁸⁶ The MPFD responds to approximately 8,500 emergencies a year with approximately 60 percent of the emergencies being emergency medical incidents. Additionally, the MPFD is part of the greater San Mateo County boundary-drop plan whereby the closest apparatus responds to each emergency services call.

The MPFD has seven stations that are strategically placed to provide the most efficient response times. The closest MPFD station to the Specific Plan area is Station 2, which is located at 2290 University Avenue approximately 620 feet southwest of the Specific Plan area. Station 2 is currently staffed by three personnel (one captain and two firefighters) per shift. Of the three personnel on duty, one of them is a licensed paramedic. Station 2 is the busiest fire station in the District and San Mateo County. The MPFPD's Fire Board has adopted time and response standards under Board Resolution 1818-2015 to be on-scene of any incident within seven minutes, 90 percent of the time. Seven minutes includes one minute for dispatch, up to two minutes for turnout time and four minutes for response or drive time.⁸⁷

Since certification of the 2013 Specific Plan EIR, in 2015 the MPFPD Board of Directors adopted a 5-year Capital Improvements Plan and prepared an Impact Fee Nexus Study (adopted in 2016) to fund short- and long-term capital improvement projects needed to serve planned growth in its service

⁸⁶ Menlo Park Fire District. "Our Fire District." Accessed February 7, 2023. Available at:

<https://www.menlofire.org/our-fire-district>

⁸⁷ Menlo Park Fire District. *Resolution of the Menlo Park Fire Protection District Adopting A Time Based Performance Measure Standard or the Menlo Park Fire Protection District*. September 15, 2015.

<https://www.menlopark.org/DocumentCenter/View/20783/D1---Response-time#:~:text=Response%20Times%20are%20critical%20%E2%80%93%20The,minutes%20matter%20and%20seconds%20count.>

area (including the Specific Plan area) through 2035.⁸⁸ In 2020, Fire Station 2 was rebuilt with a new fire station using funding from the Impact Fee.⁸⁹ The buildout of the proposed Specific Plan update was not accounted for in the 2015 Capital Improvements Plan or 2016 Impact Fee Nexus Study.

Police Protection Services

The East Palo Alto Police Department (EPAPD) provides police services in the City of East Palo Alto.⁹⁰ The EPAPD patrols four beats in the City. EPAPD headquarters are located at 141 Demeter Street which is located within the Specific Plan area.

Schools

The Specific Plan area is located within the Ravenswood City Elementary School District and the Sequoia Union High School District.⁹¹ The Ravenswood City Elementary School District operates five K-8 schools and one middle school (Cesar Chavez Ravenswood Middle School, located at 2450 Ralmar Avenue, 520 feet west of the Plan area), including an elementary school located 850 feet west of the Specific Plan area (Costano Elementary School).⁹² The Sequoia Union High School District operates seven high schools and one adult school.⁹³ The closest high school to the Specific Plan area is the KIPP Esperanza High School (which is a public charter school that is not a part of a school district), located approximately 700 feet southwest of the Specific Plan area site at 1039 Garden Street. The nearest high school within the Sequoia Union High School District is East Palo Alto Academy, approximately 0.4 miles southwest of the Plan area.

Parks

Since the certification of the 2013 Specific Plan EIR, Cooley Landing Park (which was within the 2013 Specific Plan area, but is not within the current Specific Plan area) was constructed.⁹⁴

The City of East Palo Alto owns and maintains seven parks totaling approximately 25 acres, including five main parks and two smaller “pocket” parks.⁹⁵ No City-owned parks are located within the Specific Plan area. Two City parks are located within 0.3 miles (walking distance) of the

⁸⁸ Menlo Park Fire Protection District. *Emergency Services and Fire Protection Impact Fee Nexus Study*. February 16, 2016.

⁸⁹ San Jose Mercury News. “Menlo Park: Fire district on track to replace seven stations in 10 years.” Accessed December 3, 2020. Available at: <https://www.mercurynews.com/2016/03/16/menlo-park-fire-district-on-track-to-replace-seven-stations-in-10-years/>.

⁹⁰ City of East Palo Alto. “Police Department.” Accessed October 14, 2021. Available at: <https://www.ci.east-palo-alto.ca.us/police>.

⁹¹ Great Schools. “School and District Boundaries Map.” Accessed October 14, 2021. Available at: <https://www.greatschools.org/school-district-boundaries-map/>

⁹² Ravenswood Elementary School District. “Schools.” Accessed October 14, 2021. Available at: <http://www.ravenswoodschools.org/Schools/index.html>.

⁹³ Sequoia Union High School District. “Schools.” Accessed October 14, 2021. Available at: <https://www.seq.org/SCHOOLS/index.html>

⁹⁵ City of East Palo Alto. Parks, Recreation, and Open Space Master Plan” Accessed March 2023.

⁹⁵ City of East Palo Alto. Parks, Recreation, and Open Space Master Plan” Accessed March 2023.

Specific Plan area, including the 3.7-acre Jack Farrell Park (located at 2509 Fordham Street, approximately 300 feet west of the Specific Plan area) and 10 acre Cooley Landing Park (located at 2100 Bay Road, approximately 690 feet west of the Specific Plan area). Jack Farrell Park includes a softball field, play structure, workout equipment, restrooms, tables, small grass area, and power for inflatables.⁹⁶ and Cooley Landing Park includes a 3,000 square foot education center and walking⁹⁷ The City also contains 18.5 acres of open space including the Baylands Nature Preserve (5.5 acres) and Don Edwards San Francisco Wildlife Preserve (13 acres).

Libraries

East Palo Alto Library is part of the San Mateo County Libraries system.⁹⁸ East Palo Alto Library is located at 2415 University Avenue within the Specific Plan area. Library features include book rentals, computer services, wireless internet, and access to 3D printers.

3.14.2 Impact Discussion

For the purpose of determining the significance of the project's impact on public services, would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

- 1) Fire protection?
- 2) Police protection?
- 3) Schools?
- 4) Parks?
- 5) Other public facilities?

⁹⁶ City of East Palo Alto. "Jack Farrell Park." Accessed February 7, 2023. Available at: <https://www.ci.east-palo-alto.ca.us/parksrec/page/jack-farrell-park>

⁹⁷ City of East Palo Alto. "Cooley Landing Education Center." Accessed February 7, 2023. Available at: <https://www.cityofepa.org/parksrec/page/cooley-landing-education-center>

⁹⁸ San Mateo County Libraries. "East Palo Alto." Accessed February 7, 2023. Available at: <https://smcl.org/>

3.14.2.1 *Project Impacts*

- a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services?
-

The 2013 Specific Plan EIR concluded that buildout of the 2013 Specific Plan would result in increased demand for fire protection and emergency services in East Palo Alto such that new fire protection and facilities, personnel, and equipment would be needed and response times could be reduced. However, it was concluded that increased property tax revenue for MPFPD received from the Redevelopment Agency of the City of East Palo Alto would ensure adequate funding is available to expand fire and emergency services and meet the demand for such services and facilities in the Specific Plan area. However, redevelopment agencies were eventually dissolved by the state.

Buildout of the proposed Specific Plan Update (under both development scenarios, with the loop road or multi-use trail) would result in increased development and demand for fire protection and emergency services compared to existing conditions and the growth evaluated in the 2013 Specific Plan EIR and 2015 MPFPD Capital Improvements Plan. No new or expanded MPFPD facilities needs have been identified to accommodate increased demand for fire protection and emergency response services associated with buildout of the Specific Plan Update (under both development scenarios, including the multi-use path, with or without the I).⁹⁹ The City, continually evaluates its service levels and works with the City Council during the budget process to balance resources and plan for future needs. In addition, the loop road would provide emergency access to properties on the eastern end of the Specific Plan area. The multi-use path, without the loop road, would be a pedestrian and bicycle path that would not include travel lanes; therefore, the multi-use path would not provide emergency access. The loop road option could improve emergency response times as it provides additional emergency access for Scenarios 1 and 2, as well as under the 2013 Specific Plan.

While, as stated above, no new or expanded MPFPD facilities have been identified as needed to serve buildout of the Specific Plan Update, in the event a new or expanded fire station were determined to be needed at a future date within the Specific Plan area, separate environmental review would be required to assess its impact, with MPFPD serving as the lead agency. The development of a future fire station in the Specific Plan area would comply with existing regulations and applicable policies, including the Specific Plan policies identified in Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.7 Geology and Soils, 3.8 Greenhouse Gas Emissions, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, 3.13 Noise, 3.18 Tribal Cultural Resources, that would reduce environmental impacts associated with construction to a less than significant level.

⁹⁹ Jon Johnson. Chief/Fire Marshall. Personal Communication. August 25, 2022.

For the above reasons, implementation of the proposed Specific Plan Update (under both development scenarios) would result in a new less than significant impact.

(Less than Significant Impact)

-
- b) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection services?
-

The 2013 Specific Plan EIR concluded that buildout of the 2013 Specific Plan would result in increased demand for police protection services which could result in the need for additional personnel, equipment, and construction of new facilities. However, because buildout would occur over a 20-year period and the environmental impacts associated with provision of new facilities would be determined when the exact location or type of facilities is known, impacts would be less than significant.

Buildout of the proposed Specific Plan Update (under both development scenarios) would result in increased development and demand for police protection services compared to existing conditions and the growth evaluated in the 2013 Specific Plan EIR. The City has identified the need for a new police station to serve the existing and future planned population which has been in the City's CIP as an unfunded project.¹⁰⁰ However, the timing, location, and details of a new police station are unknown. Consistent with the 2013 Specific Plan EIR, buildout of the Specific Plan Update (under both development scenarios) would occur over an approximately 20-year period and the environmental impacts associated with provision of new facilities would be determined when the exact location or type of facilities is known, impacts would be less than significant. Future development under the Specific Plan Update would be subject to the Public Facilities Development Impact Fee to help fund the future police station. As stated under Impact PS-3, the loop road option (compared to the multi-use path without the loop) could provide improved emergency access to the eastern properties of the Plan area and improve police response times. In addition, the City continually evaluates its service levels and works with the City Council during the budget process to balance resources and plan for future needs.

In the event a new police station or substation were to be located within the Specific Plan area at a future date, additional project-level environmental review would be required to assess its impact, once sufficient details about the new or expanded facility were known. The development of future police facilities in the Specific Plan area would be in compliance with existing regulations and applicable policies, including the Specific Plan policies identified in Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.7 Geology and Soils, 3.8 Greenhouse Gas Emissions, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, 3.13 Noise, 3.18 Tribal

¹⁰⁰ Personal Communications. Jeff Liu, Chief of Police, City of East Palo Alto Police Department. July 8, 2024.

Cultural Resources, that would reduce environmental impacts associated with construction to a less than significant level.

For these reasons, implementation of the Specific Plan Update (under both development scenarios) would result in the same impact as identified in the 2013 Specific Plan EIR.

(Less than Significant Impact)

-
- c) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?
-

The 2013 Specific Plan EIR concluded that increased student enrollment resulting from buildout of the Specific Plan would be accommodated by existing capacity at the Sequoia Union High School District but would exceed the existing capacity at schools in the Ravenswood City School District potentially resulting in the need for expanded school facilities within the Ravenswood City School District. However, coordination with public service providers to meet the City's needs consistent with General Plan Policies 4.1 and 4.2 and payment of school district impact fees by future development projects under the Specific Plan would mitigate this impact to a less than significant level pursuant to Section 65995(h) of the California Government Code.

As discussed in Section 3.13 Population and Housing, buildout of the Specific Plan Update would redevelop properties that currently contain 100 residential units, and result in a net increase of approximately 4,190 and 5,015 new residents in East Palo Alto under Scenario 1 and 2 respectively (and 1,250 and 1,500 net residential units for Scenarios 1 and 2, respectively). Based on student generation rates of Ravenswood City School District and Sequoia Union High School District, 465 to 558 would be elementary and middle school students,¹⁰¹ and 250 to 300 would be high school students.¹⁰² Students in the Ravenswood City School District could attend any of the schools in the district since the district has an open enrollment policy.¹⁰³ However, for the purposes of this analysis, it is conservatively assumed that half of the students attending Ravenswood City School District schools would attend elementary school and half would attend middle school. Table 3.14-1 shows the existing capacity, student enrollment, and available capacity at nearby schools in the Specific Plan area.

¹⁰¹ Calculated based on student generation rate of 0.372 students per housing unit. Source: Ravenswood City School District. *2020 School Facility Fee Justification Report for Residential, Commercial, & Industrial Development Projects*. June 2020.

¹⁰² Calculated based on student generation rate of 0.2 students per housing unit. Source: Sequoia Union High School District. *Sequoia Union High School District-Level 1 Developer Fee Study*. March 2018.

¹⁰³ William Eger, Chief Business Officer, Ravenswood City School District. Personal communication. September 14, 2022.

Table 3.14-1: Student Enrollment and Capacity in Specific Plan Area				
School	Existing Capacity	Existing Enrollment	Difference	Proposed Project Student Generation
Costano School of the Arts ¹	550	323	227	465 to 558
Cesar Chavez Ravenswood Middle School ¹	750	545	205	
East Palo Alto Academy ²	360	291	69	250 to 300
Source: ¹ William Eger, Chief Business Officer, Ravenswood City School District. Personal communication. September 14, 2022. ² Cecilia Marquez, Senior Administrative Secretary, Sequoia Union High School District. Personal communication. April 18, 2023.				

As shown in Table 3.14-1, based on the current capacity and enrollment at the local schools, and the estimated number of Specific Plan Update generated students (under both development scenarios, including the multi-use path with or without the loop road) the number of elementary, middle school and high school students generated by the Specific Plan Update (under both development scenarios) would exceed existing available capacity at the Costano School of the Arts, Cesar Chavez Ravenswood Middle School, and East Palo Alto Academy.

In accordance with state law, future development projects allowed under the proposed Specific Plan Update (under both development scenarios) shall pay school impact fees. The Ravenswood City School District and Sequoia Union High School District have fee programs in place and future projects would be subject to payment of applicable developer fees. Payment of the adopted developer fees by individual project applicants would, in accordance with Section 65995(h) of the California Government Code, fully and completely mitigate all school impacts.

No new or expanded school facilities are proposed for the Ravenswood City School District or Sequoia Union High School District at this time. In the event that new or expanded school facilities are proposed by the school district, they would be subject to separate CEQA review by the school district. Based on previous analyses for new or expanded public school facilities on developed locations in the Bay Area, typical measures similar to the conditions of approval identified in Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.7 Geology and Soils, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, 3.12 Noise, and 3.17 Tribal Cultural Resources of this Draft SEIR would be required to reduce potential construction-related effects to less than significant levels. Consistent with Government Code 65996, the project (under both development scenarios) would pay state-mandated school impact fees to offset impacts to local schools, reducing impacts to a less than significant level. This is the same impact as disclosed in the 2013 Specific Plan EIR.

(Less than Significant Impact)

-
- d) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for parks?
-

The 2013 Specific Plan EIR concluded that although buildout of the Specific Plan would increase demand for parks, construction of these new parks was included in the Specific Plan and the environmental effects of this development were analyzed and found to be less than significant with implementation of mitigation measures and compliance with state and City laws and regulations. Therefore, the 2013 Specific Plan EIR concluded that parks impacts resulting from implementation of the Specific Plan would be less than significant.

As discussed in Section 3.14.1 above, the City owns and maintains seven parks totaling approximately 25 acres, including five main parks and two smaller “pocket” parks. The City also contains 18.5 acres of open space including the Baylands Nature Preserve (5.5 acres) and Don Edwards San Francisco Wildlife Refuge (13 acres). An additional 30.5 acres of parks and open space would be added to the Specific Plan area as a part of the Specific Plan Update. The Specific Plan Update (under both development scenarios, with and without the loop road) would add a total of approximately 4,190, and 5,015 net new residents in East Palo Alto under Scenario 1 and 2, respectively. Therefore, implementation of the Specific Plan Update would result in a parkland to resident ratio of 7.3 acres per 1,000 residents under Scenario 1 and 6.1 acres per 1,000 residents under Scenario 2,¹⁰⁴ exceeding the City’s service standard of three acres per 1,000 residents (required under the City’s Municipal Code 18.62.030) under both development scenarios. The proposed additional 30.5 acres of park and open space would, therefore, be adequate to serve the increased demand from future residents from development under the Specific Plan Update. In addition, future project applicants will be required to pay a Parks and Trails Development Impact Fee based on population growth from the new development, per the Nexus Study to be completed in 2024; the fee would contribute to the funding of the City’s planned park improvements.

The environmental impacts associated with development of the proposed park and open space are discussed throughout this SEIR as part of the Specific Plan Update. The physical impacts of constructing the park and open space would be reduced to less than significant levels through compliance with existing regulations including General Plan and Specific Plan policies identified in Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.6 Energy, 3.7 Geology and Soils, 3.8 Greenhouse Gas Emissions, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, 3.13 Noise, 3.18 Tribal Cultural Resources.

(Less than Significant Impact)

¹⁰⁴ Scenario 1: (31 open space acres *1,000 residents)/4,190 net new residents = 7.4 acres. Parkland ratio = 7.4 acres per 1,000 residents

Scenario 1: (31 open space acres *1,000 residents)/5,015 net new residents = 6.2 acres. Parkland ratio = 6.2 acres per 1,000 residents

-
- e) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for other public facilities?
-

The 2013 Specific Plan EIR concluded that development allowed under the Specific Plan would increase demand for library facilities necessitating construction of new library facilities; however, provision of new library facilities was included in the projected buildout of the Specific Plan and the impacts associated with provision of these facilities resulting from implementation of regulatory changes was analyzed throughout the 2013 Specific Plan EIR and found to be less than significant.

Consistent with the 2013 Specific Plan EIR, the Specific Plan Update (under both development scenarios) assumes development of a new library facility within the Specific Plan area, and in 2023, the City approved a General Plan Amendment and Rezoning of a site (2474 Pulgas Avenue) for the property acquisition to accommodate future development of a 23,275 square foot library building. Future development projects will be required to pay a Public Facilities Development Impact Fee identified in the 2024 Nexus Study, which would include funding for the new library. The environmental impacts associated with the General Plan Amendment and Rezoning required to enable future library development on the site are discussed throughout this EIR and found to be less than significant or less than significant with implementation of mitigation measures. The library development plans are currently conceptual and will be further developed following approval of the Specific Plan Update (under both development scenarios). Therefore, precise details about the construction and operation of the library are not yet known and will be further developed at a later date, and subject to project-level environmental review. The City completed CEQA environmental review for acquisition of the site for a potential future library in 2023, and concluded that future development of a library at that location would be expected to result in less than significant impacts upon implementation of typical mitigation measures for urban infill development. For these reasons, the impacts associated with the provision of new or altered library facilities resulting from implementation of the proposed Specific Plan Update (under both development scenarios) would be less than significant.

(Less than Significant Impact)

3.14.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant public services impact?

Cumulative Fire and Police Facilities Impacts

The geographic area for cumulative fire and police protection services is the City boundaries and the MPFPD service area. As discussed under Impact PS-1 and Impact PS-2, the City continually

evaluates its service levels and works with the City Council during the budget process to balance resources and plan for future needs. In the event the MPFD determined new or expanded fire facilities are required within the Specific Plan area, its construction would comply with existing regulations and applicable policies, including the Specific Plan Update policies identified in Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.7 Geology and Soils, 3.8 Greenhouse Gas Emissions, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, 3.13 Noise, 3.18 Tribal Cultural Resources, to reduce environmental impact to a less than significant level.

(Less than Significant Cumulative Impact)

Cumulative School Facilities Impacts

The 2013 Specific Plan projected that the total enrollment in the Ravenswood City School District and the Sequoia Union High School District in 2035 would be 4,978 students and 4,092 students, respectively. It was assumed that the Ravenswood City School District would have a student generation rate of 0.5 students per unit and would add 418 students to the District, and the Sequoia Union High School District would have a student generation rate of 0.2 students per dwelling unit and add 167 students. The 2013 Specific Plan EIR and General Plan EIR concluded that regional growth resulting from past, present, and reasonably foreseeable projects would result in increased demand for additional school facilities within the Ravenswood City School District and Sequoia Union High School District boundaries; however, where these school facilities would expand was not known and additional project-specific environmental analysis would be completed by the School District. For these reasons the 2013 Specific Plan EIR concluded that impacts associated with the provision of new or altered school facilities resulting from cumulative projects would not be cumulatively considerable.

The geographic area for cumulative school impacts are the attendance boundaries of the schools that students generated from the Specific Plan Update would attend. The Specific Plan Update Scenario 1 would generate 465 net new students for the Ravenswood City School District (based on the 0.372 students per unit generation rate provided by the school district) and 558 net new students for Scenario 2. The Specific Plan Update Scenario 1 would generate 250 net new students for the Sequoia Union School District and Scenario 2 would generate 300 net new students for the Sequoia Union High School District (assuming the same generation rate of 0.2 students per residential unit in the 2013 Specific Plan). The Specific Plan Update Scenario 1 would result in a nine (9) percent increase and Specific Plan Update Scenario 2 would result in a 10 percent increase of net new students above what was assumed in the General Plan for the Ravenswood City School District. The Specific Plan Update Scenario 1 would result in a six (6) percent increase and Specific Plan Update Scenario 2 would result in a seven (7) percent increase in net new students above what was assumed for the Sequoia Union High School District in the General Plan.

As required by Government Code 65996, cumulative projects (under both development scenarios) would be required to pay the school impact fees to impacted school districts in order to offset the increased demands on school facilities caused by development. Therefore, the cumulative projects

would not result in significant cumulative impacts to schools. In the event that the School District determines there is a need for expansion of existing schools within the Ravenswood City School District and Sequoia Union High School District boundaries resulting from the buildout of the Specific Plan Update, separate environmental review would be undertaken by the School District as lead agency. In general, construction or expansion of a public, local-serving school can be expected to not result in significant impacts in compliance with existing regulations and measures such as those identified for future development in Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.7 Geology and Soils, 3.8 Greenhouse Gas Emissions, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, 3.13 Noise, 3.18 Tribal Cultural Resources.

(Less than Significant Cumulative Impact)

Cumulative Parks Facilities Impacts

The 2013 Specific Plan EIR found that the addition of new residents in the plan area would compound the existing shortage of parks and recreational facilities in East Palo Alto and trigger the development, expansion, and or construction of facilities in the City; however these new and expanded facilities would be subject to environmental review under CEQA as well as municipal code regulations. The Specific Plan EIR concluded that the potential environmental impacts would be minimized and the Specific Plan would have a less than significant cumulative impact related to parks and recreational facilities.

The geographic area for cumulative park impacts is the City boundaries. All cumulative projects (including future Specific Plan Update development) would be required to comply with the City's Municipal Code 18.62.030 and 18.62.040, which mandates a parkland dedication of three acres per 1,000 residences or a payment of an in-lieu fee for future developments. Compliance with the Municipal Code ensures the demand for park and recreational facilities by new residents is adequately met. Development of park and recreational facilities is subject to the City's development review process, existing regulations (including General Plan policies), and the Specific Plan policies (if applicable) identified in Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.7 Geology and Soils, 3.8 Greenhouse Gas Emissions, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, 3.13 Noise, 3.18 Tribal Cultural Resources to reduce any potential environmental impacts associated with their construction to less than significant levels.

(Less than Significant Impact)

Cumulative Library Facilities Impacts

The 2013 Specific Plan EIR concluded that projected population growth within San Mateo County (including buildout of the Specific Plan) would result in increased demand for library services and provision of new or expanded library facilities; however, as specific library facilities are identified, additional project-level environmental analysis would be completed and impacts associated with provision of these facilities were found to be not cumulatively considerable.

The geographic area for cumulative library impacts is the City boundaries. The 2013 Specific Plan EIR states that implementation of the 2013 Specific Plan could potentially add approximately 2,766 new residents to the Plan Area by 2035, which could increase the demand for library services and facilities in East Palo Alto. The Specific Plan Update Scenarios 1 and 2 would add approximately 4,190 and 5,015 net new residents, respectively. Consistent with the 2013 Specific Plan EIR, the proposed Specific Plan Update (under both development scenarios, including the multi-use path, with and without the loop road) assumes development of new library facilities within the Specific Plan area. Therefore, impacts associated with the provision of new or altered library facilities resulting from the Specific Plan Update in combination with cumulative projects would have a less than significant cumulative impact, consistent with the conclusions in the 2013 Specific Plan EIR. Furthermore, as discussed under Impact PS-5 above, the environmental effects of future development of a library on a site within the Specific Plan area are analyzed throughout this SEIR as part of the planned civic/ community spaces proposed as part of the Specific Plan and found to be less than significant or less than significant with implementation of mitigation measures. For these reasons, the Specific Plan Update (under both development scenarios) would result in a less than significant cumulative impact to library facilities.

(Less than Significant Cumulative Impact)

3.15 Recreation

3.15.1 Environmental Setting

3.15.1.1 *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.

Local

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating impacts to recreation from planned development within the City, including the following:

Policy	Description
<i>Parks, Open Space, and Conservation</i>	
1.1	New parks and open space. Maintain a park standard of 3 acres per 1,000 residents. Undertake a program to add 79 acres of new formalized park spaces, prioritizing the areas of the City currently underserved by parks (Weeks, Kavanaugh, Willow, and Woodland).
1.8	Parks and open spaces. Establish a range of parks and open spaces, including tot lots, neighborhood parks, plazas/greens, and/or greenways/parkways within all new Neighborhoods, Centers and Districts.
3.1	Commercial and residential park impact fees. Adopt a Nexus Study Impact Fee so that commercial and residential development contributes its fair share toward capital improvements, operations, and maintenance of parks and recreational facilities.
<i>Health and Equity</i>	
3.1	Parks and open space. Encourage the City to create safe and attractive places for recreation and exercise. This policy is implemented through the Parks and Open Space Element of the General Plan.

3.15.1.2 Existing Conditions

The City of East Palo Alto owns and maintains seven parks totaling approximately 25 acres, including five main parks and two smaller “pocket” parks. ¹⁰⁵ No City-owned parks are located within the Specific Plan area. Two City parks are located within 0.3 miles (walking distance) of the Specific Plan area, including the 3.7-acre Jack Farrell Park (located at 2509 Fordham Street, approximately 300 feet west of the Specific Plan area) and 10 acre Cooley Landing Park (located at 2100 Bay Road, approximately 690 feet west of the Specific Plan area). Jack Farrell Park includes a softball field, play structure, workout equipment, restrooms, tables, small grass area, and power for inflatables. ¹⁰⁶ and Cooley Landing Park includes a 3,000 square foot education center and walking ¹⁰⁷ The City also contains 18.5 acres of open space including the Baylands Nature Preserve (5.5 acres) and Don Edwards San Francisco Wildlife Refuge (13 acres).

3.15.2 Impact Discussion

For the purpose of determining the significance of the project’s impact on recreation:

- 1) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- 2) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

3.15.2.1 Project Impacts

-
- a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
-

The 2013 Specific Plan EIR concluded that although buildout of the Specific Plan would increase demand for parks, compliance with General Plan goals and Policies 6.1 and 6.2 which call for the maintenance of public and private recreational lands, facilities and programs and use of durable and economical materials in parkland improvements, and the provision of new parkland planned in the Specific Plan area, would reduce potential impacts associated with substantial physical deterioration of existing parks and recreational facilities to a less than significant level.

An additional 30.5 acres of parks and open space would be added to the Specific Plan area as a part of the Specific Plan Update. The Specific Plan Update (under both development scenarios, with and

¹⁰⁵ City of East Palo Alto. Parks, Recreation, and Open Space Master Plan” Accessed March 2023.

¹⁰⁶ City of East Palo Alto. “Jack Farrell Park.” Accessed February 7, 2023. Available at: <https://www.ci.east-palo-alto.ca.us/parksrec/page/jack-farrell-park>

¹⁰⁷ City of East Palo Alto. “Cooley Landing Education Center.” Accessed February 7, 2023. Available at: <https://www.cityofepa.org/parksrec/page/cooley-landing-education-center>

without the loop road) would add a total approximately 4,190 to 5,015 new residents in East Palo Alto under Scenario 1 and 2, respectively. Therefore, implementation of the Specific Plan Update would result in a parkland to resident ratio of 7.3 acres per 1,000 residents under development scenario 1 and 6.1 under development scenario 2, exceeding the City's service standard of three acres per 1,000 residents (required under the City's Municipal Code 18.62.030) under both development scenarios. The proposed additional 30.5 acres of park and open space would, therefore, be adequate to serve the increased demand from future residents from development under the Specific Plan Update. Therefore, development under the Specific Plan Update would not result in substantial physical deterioration of existing neighborhood and regional parks or other recreational facilities.

(Less than Significant Impact)

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The 2013 Specific Plan EIR concluded that although buildout of the Specific Plan would increase demand for parks, construction of these new parks was included in the Specific Plan and the environmental effects of this development were analyzed in the 2013 Specific Plan EIR and found to be less than significant with implementation of mitigation measures and compliance with state and City laws and regulations. Therefore, the 2013 Specific Plan EIR concluded that parks impacts resulting from implementation of the Specific Plan would be less than significant.

As discussed under Impact REC-1, the Specific Plan Update would provide adequate parks and recreational facilities to serve the future residents in the Specific Plan area. The environmental impacts associated with development of the proposed park and open space are discussed throughout this SEIR as part of the Specific Plan Update. The physical impacts of constructing the park and open space would be reduced to less than significant levels through compliance with existing regulations including General Plan and Specific Plan policies identified in Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.7 Geology and Soils, 3.8 Greenhouse Gas Emissions, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, 3.13 Noise, and 3.18 Tribal Cultural Resources.

(Less than Significant Impact)

3.15.2.2 Cumulative Impacts

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

The 2013 Specific Plan EIR found that the addition of new residents in the plan area would compound the existing shortage of parks and recreational facilities in East Palo Alto and trigger the

development, expansion, and or construction of facilities in the City; however, these new and expanded facilities would be subject to environmental review under CEQA as well as municipal code regulations. The Specific Plan EIR concluded that the potential environmental impacts would be minimized and the Specific Plan would have a less than significant cumulative impact related to parks and recreational facilities.

The geographic area for cumulative recreational impacts is the City boundaries. All cumulative projects (including future Specific Plan Update development) would comply with the City's Municipal Code 18.62.030 or 18.62.040. Compliance with the Municipal Code ensures the demand for park and recreational facilities by new residents is adequately met. Development of park and recreational facilities is subject to the City's development review process, existing regulations (including General Plan policies), and the Specific Plan Update policies (if applicable) identified in Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.7 Geology and Soils, 3.8 Greenhouse Gas Emissions, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, 3.13 Noise, and 3.18 Tribal Cultural Resources to reduce any potential environmental impacts associated with their construction to less than significant levels.

(Less than Significant Cumulative Impact)

3.16 Transportation

The following discussion is based upon a Transportation Analysis (TA) prepared by Hexagon Transportation Consultants, Inc. in March 2023. The TA is included as Appendix F of this Draft SEIR.

3.16.1 Environmental Setting

3.16.1.1 *Regulatory Framework*

State

Regional Transportation Plan

MTC is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including San Mateo County. MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and ABAG adopted Plan Bay Area 2040 in July 2017, which includes a Regional Transportation Plan to guide regional transportation investment for revenues from federal, state, regional and local sources through 2040.

Senate Bill 743

SB 743 establishes criteria for determining the significance of transportation impacts using a vehicle miles traveled (VMT) metric intended to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. Specifically, SB 743 requires analysis of VMT in determining the significance of transportation impacts. Local jurisdictions were required by Governor's Office of Planning and Research (OPR) to implement a VMT policy by July 1, 2020.

SB 743 did not authorize OPR to set specific VMT impact thresholds, but it did direct OPR to develop guidelines for jurisdictions to utilize. CEQA Guidelines Section 15064.3(b)(1) describes factors that might indicate whether a development project's VMT may be significant. 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

The City/County Association of Governments of San Mateo County (C/CAG) oversees the area's Congestion Management Program (CMP), which identifies strategies to respond to future transportation needs, development procedures to alleviate and control congestion, and promotes countywide solutions to congestion issues. State legislation requires that urbanized counties in California prepare a CMP in order to alleviate and control congestion and promotes countywide

solutions to congestion issues. State legislation requires that urbanized counties in California prepare a CMP in order to obtain their share of increased gas tax revenues. The legislation requires that each CMP contain the following elements: 1) a system definition and traffic level of service standard element; 2) a transit service and standard element; 3) a trip reduction and transportation demand management element; 4) a land use impact analysis program element; and 5) a capital improvement element.

Local

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating transportation impacts resulting from planned development within the City, including the following:

Policy	Description
<i>Transportation</i>	
2.1	Accommodating all modes. Plan, design, and construct transportation projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists, people with disabilities, and persons of all ages and abilities.
3.3	Pedestrian network. Create a safe, comfortable, and convenient pedestrian network that focuses on a) safe travel; b) improving connections between neighborhoods and commercial areas, and across existing barriers; c) providing places to sit or gather, pedestrian-scaled street lighting, and buffers from moving vehicle traffic; and d) includes amenities that attract people of all ages and abilities.
4.1	Bicycle Network. Improve facilities and eliminate gaps along the bicycle network to connect destinations across the city and create a network of bicycle facilities along multiple types that connect to neighboring cities, including a path along Newell Road between Highway 101 and San Francisquito Creek. The network should facilitate bicycling for commuting, school, shopping and recreational trips by riders of all ages and levels of experience.
4.6	Bicycle parking standards. Require large public and private development projects to provide sufficient bicycle parking, shower and locker facilities.
5.4	Access to transit. Provide connecting bicycle and pedestrian infrastructure and amenities to improve access to transit stations and stops and encourage new development projects near transit to improve transit stop amenities.
5.5	Transit stops. Support the installation of transit stop amenities, including shelters, benches, real-time information panels, lighting, bike parking, bike sharing stations, etc.
5.6	Local transportation services. Create or partner with transit providers, employers, educational institutions, major commercial entities and event organizers to improve local transportation services including developing discount transit pass programs for groups such as students.

- 6.2 **Parking requirements.** Maintain efficient parking standards that consider the effect on demand due to various contextual conditions such as parking prices, transportation demand management strategies, transit accessibility, walkability, and bikeability. Study establishing a density bonus program for developments that utilize mechanized parking lifts.
- 6.3 **Off-Street Parking.** Ensure that off-street parking is properly designed and used efficiently.
- 7.1 **Automobile Level of Service Standards.** Improve the East Palo Alto circulation system roadways in concert with land development to maintain adequate LOS for automobile travel. Automobile LOS performance can be measured using a volume-to-capacity (V/C) ratio. V/C ratios are calculated based on existing or future average daily traffic (ADT) volumes and daily capacity values for various types of roadways. A level of service scale is used to evaluate roadway performance based on V/C ratios. These levels range from “A” to “F”, with LOS A representing free flow conditions and LOS F representing severe traffic congestion. Descriptions of traffic flow for the different levels of service are provided in Table 6-4 Standards for Roadway Level of Service. The performance criteria for evaluating volumes and capacities of the East Palo Alto roadway system is LOS D. At a signalized intersection, an impact is considered significant if it causes operations to degrade from LOS D or better to LOS E or F; or exacerbates LOS E or F conditions by increasing critical delay by >4 seconds and increasing volume to capacity ration (V/C ratio) by 0.01; or increases the V/C ratio by >0.01 at an intersection that exhibits unacceptable operations, even if the calculated LOS is acceptable. At an un-signalized intersection, an impact is considered significant if it: causes operations to degrade from LOS D or better to LOS E or F; or exacerbates LOS E or F conditions by increasing control delay; or causes volumes under project conditions to exceed the Caltrans Peak Hour Volume Warrant Criteria. Where the City determines that proposed development projects will cause LOS standards to be exceeded, appropriate mitigation will be required to improve roadways to meet LOS standards.
- 7.2 **Updating Transportation Performance Measures.** Update the transportation performance measures in the Transportation Element, including Automobile Level of Service standards, once the State of California has amended the California Environmental Quality Act Guidelines to implement Senate Bill 743’s requirements to provide an alternative to automobile Level of Service for evaluating transportation impacts (see California Public Resources Code Section 21099(b)(1).). Additionally, designate appropriate infill opportunity zones in East Palo Alto, within which the automobile Level of Service standards prescribed by the California Government Code Section 65089 shall not apply (see Government Code Section 65088.1 and 65088.4).
- 7.3 **Multimodal transportation impact fee.** Adopt a transportation impact fee for new development that raises funds for improving all modes of transportation.
- 8.1 **Transportation Demand Management (TDM).** Promote effective TDM programs to reduce travel demand from existing and new development, shifting trips to alternative modes. Regularly update the TDM ordinance to establish effective requirements that reduce travel demand from existing and new development. Require projects to implement TDM programs, as defined in the TDM ordinance.

Safety and Noise

- 4.4 **Transportation safety.** Minimize transportation accidents by considering pedestrian safety in all land use decisions and working closely with CHP, Caltrans, SamTrans, and other relevant agencies to identify safety problems and implement corrective measures.
-

City of East Palo Alto Municipal Code

The City of East Palo Alto Municipal Code Chapter 10.32, Transportation Demand Management (TDM) Program, establishes a citywide TDM ordinance that requires nonresidential developments to achieve a 40 percent reduction in daily vehicle trips and existing developments with 100 or more employees to submit TDM plans that demonstrate how the worksite will achieve a 40 percent reduction in average daily trips. The TDM ordinance requires residential developments to submit and implement a TDM plan that demonstrates how the development will support TDM strategies in the City and achieve a 40 percent reduction from baseline conditions in average daily trips.

City of East Palo Alto Vehicle Miles Traveled Policy

Consistent with SB 743, the City of East Palo Alto adopted a new transportation analysis policy in July 2020 that establishes the thresholds for transportation impacts under CEQA based on vehicle miles traveled (VMT) instead of level of service (LOS). Under this policy, beginning July 7, 2020, all new projects are required to analyze transportation impacts using the VMT metric.

The City's VMT policy identifies a citywide average home-based VMT per capita for existing residential land uses and a citywide average home-based work trip VMT per employee for existing employment uses. Per the City's VMT policy, the VMT significance threshold is equal to the existing citywide average home-based VMT per capita for residential projects and is 15 percent below the existing citywide average home-based work trip VMT per employee for office and retail projects.

City of East Palo Alto Bicycle Master Plan

The East Palo Alto Bicycle Transportation Plan, adopted in 2011, was created to reflect the goals and policies of the 1999 General Plan and Bay Access Master Plan and improve the overall community health through improved air-quality and by helping people stay physically fit. The Bicycle Master Plan Update was adopted in October 2017. The plan embraces a reduction in greenhouse gas emissions and advocates for connectivity of schools with residential areas, shoppers with businesses, and commuters to employment centers.

3.16.1.2 *Existing Conditions*

Regional Access to the project site is provided by US 101 and SR 84.

US 101 is a north-south freeway that runs east-west in the vicinity of the project site. US 101 extends northward through San Francisco and southward through San José. Within East Palo Alto, US 101 consists of one high-occupancy vehicle (HOV) lane and one auxiliary lane in each direction.

SR 84, or Bayfront Expressway, is a six-lane expressway that extends along the northern edge of East Palo Alto. SR 84 extends eastward across the Dumbarton Bridge into Alameda County and westward through San Mateo County.

Local Roadway Access

Local access to the project site is provided via SR 114, SR 109, Clarke Avenue, Demeter Street, Pulgas Avenue, Bay Road, East Bayshore Road, and Donohue Street, as described below.

SR 114 is a four-lane, north-south divided arterial that serves as a border between Menlo Park and East Palo Alto. Willow Road extends from Alma Street in the south to Bayfront Expressway in the north. In the vicinity of the plan area, Willow Road is designated as SR 114.

SR 109, or University Avenue, is a north-south, major thoroughfare that extends from Stanford University in Palo Alto to Bayfront Expressway.

Clarke Avenue is a two-lane, north-south neighborhood connector street that extends from East Bayshore Road in the south to Bay Road in the north.

Demeter Street is a two-lane, north-south connector street beginning at Bay Road in the south and ending at a dead end approximately one-third mile to the north.

Pulgas Avenue is a two-lane, north-south neighborhood connector street that extends from East Bayshore Road in the south to a dead end approximately 900 feet north of Bay Road.

Bay Road is a neighborhood main street that has four lanes and a raised median between University Avenue and Pulgas Avenue. East of Pulgas Avenue, Bay Road is a two-lane road that terminates at Cooley Landing and the San Francisco Bay. Between University Avenue and Ralmar Avenue, Bay Road is a residential boulevard with one lane in each direction and a center turn lane. Westward past Ralmar Avenue, Bay Road is a local neighborhood street that terminates at Saratoga Avenue.

East Bayshore Road is a two-lane, east-west frontage road with two disjointed segments directly north of and parallel to US 101. East Bayshore Road extends southward from Saratoga Avenue near Willow Road to Euclid Avenue, where it becomes Donohue Street. East of University Avenue, East Bayshore Road extends southward from Donohue Street to San Antonio Road. East Bayshore Road is classified as a connector street.

Donohue Street is an east-west major thoroughfare that extends from Euclid Avenue in the west to Clarke Avenue in the east.

Existing Bicycle, Pedestrian, and Transit Facilities

Bicycle Facilities

Bicycle facilities are comprised of paths (Class I), lanes (Class II), and routes (Class III). The Bay Trail, a Class I bike and pedestrian path, runs along the eastern boundary of the Ravenswood Regional Open Space Preserve and Baylands Nature Preserve areas. A new segment was recently completed that extends along the north side of the University Village neighborhood from the Ravenswood Open Space Preserve to University Avenue, where a separated bikeway extends along the east side of University Avenue and connects to trail segment parallel to Bayfront Expressway. The Bay Trail also connects to Bay Road and several local neighborhood streets, including Weeks Street, Runnymede Street, and Cypress Street. The Rail Spur, a mixed-use trail, extends from Bay Road to Pulgas Avenue.

There are Class II bicycle lanes present on the following roadways:

- Willow Road, along the entire street
- Bay Road, on Bay Road from Newbridge Street to the Bay Trail
- University Avenue, between Fulton Street and Woodland Avenue
- University Avenue, north of Bell Street
- University Avenue (southbound), between Loop Road and Bayfront Expressway
- University Avenue (on the east side)
- Fordham Street, between Bay Road and Notre Dame Avenue

No bicycle lanes are provided on the other local and neighborhood streets in the vicinity of the plan area. However, due to low traffic volumes, streets within the University Village neighborhood and many of the residential streets immediately adjacent to the plan area are conducive to bicycle traffic. Existing bicycle facilities are shown on Figure 3.16-1.

Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. In the vicinity of the project site, sidewalks are provided on the following roadways:

- Both sides of University Avenue, south of Bay Road
- West side of University Avenue, between Bay Road and Notre Dame Avenue
- East side of University Avenue, between Notre Dame Avenue and the planned Loop Road
- Both sides of Bay Road, west of Tara Road
- North side of Bay Road, east of Tara Road
- Both sides of Clarke Avenue
- Both sides of Illinois Street
- Both sides of Demeter Street
- Both sides of Pulgas Avenue, south of Bay Road
- West side of Pulgas Avenue, north of Bay Road



Source: Hexagon Transportation Consultants, Inc., March 7, 2023.

EXISTING BICYCLE FACILITIES FIGURE 3.16-1

All of the crosswalks at the nearby signalized intersections consist of pedestrian signal heads and push buttons. There are crosswalks along one or more approaches at the following intersections within the plan area:

- University Avenue and Notre Dame Avenue (north approach)
- University Avenue and Kavanaugh Drive (south approach)
- Bay Road and Clarke Avenue (all approaches)
- Demeter Street and Bay Road (all approaches)
- Pulgas Avenue and Bay Road (east, west, and south approaches)
- Tara Road and Bay Road (north and west approaches)
- Clarke Avenue and Weeks Street (north and south approaches)
- Pulgas Avenue and Runnymede Street (east, west, and south approaches)

The majority of unsignalized intersections along University Avenue (e.g., Michigan Avenue, Purdue Avenue, Adams Drive, and O’Brien Drive) do not have crosswalks. To the south of Bay Road, the unsignalized intersections along University Avenue provide at least one crosswalk. There is a lack of pedestrian crosswalks between the residential areas northeast of the University Avenue/Bay Road intersection and the commercial areas west of University Avenue. Additionally, sidewalks are currently found on only one side of University Avenue and on both sides of Bay Road which discourages pedestrian travel to the open space to the east of the plan area. There are no crosswalks available at two unsignalized study intersections adjacent to the plan area (e.g., Pulgas Avenue/Weeks Street and Clarke Avenue/Runnymede Street). Existing pedestrian facilities are shown on Figure 3.16-2.

Transit Facilities

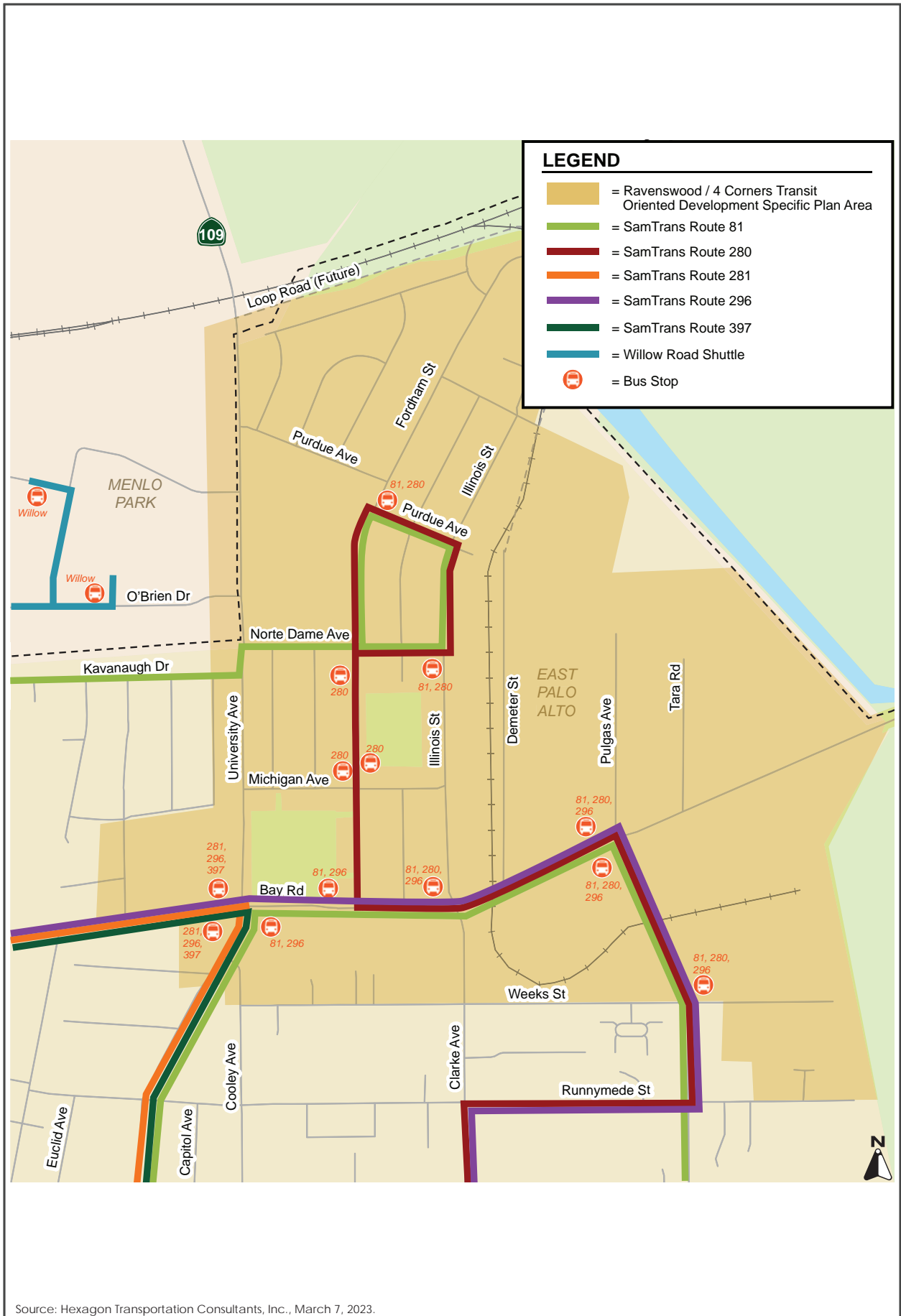
Existing transit services in the plan area are provided by the San Mateo County Transit District (Samtrans). There are six Samtrans routes that serve the site: Routes 81, 280, 281, 296, 397, and EPX. Existing bus lines near the project site are listed in Table 3.16-1 and existing transit services are shown on Figure 3.16-3.

Route	Route Description	Headway (min)
81	Menlo-Atherton High School – East Palo Alto [School service only]	5-10
280	Purdue/Fordham – Stanford Mall	60
281	Onetta Harris Center – Stanford Mall	20-30
296	Redwood City Transit Center – Bayshore/Donohoe	15-25
397	San Francisco – Palo Alto Transit Center [Late-night only]	--
EPX	San Bruno/San Francisco – Bayshore/Donohoe	30-45



EXISTING PEDESTRIAN FACILITIES

FIGURE 3.16-2



EXISTING TRANSIT SERVICES

FIGURE 3.16-3

In addition, the Willow Road Shuttle runs between the Menlo Park Caltrain Station and the Willow Road Business Park. The closest shuttle stop is located outside of the plan area at 1200 O'Brien Drive, O'Brien Drive, and Adams Court.

3.16.2 Impact Discussion

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

- 1) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?
- 2) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?
- 3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- 4) Result in inadequate emergency access?

As discussed in Section 2.3 Project Description, the SEIR evaluates two development scenarios. Scenario #1 would consist of 1,802,950 square feet of office space,¹⁰⁸ 988,400 square feet of R&D space, 250,000 square feet of industrial space, 43,870 square feet of tenant amenity space, and 1,350 residential units. Scenario #2 would consist of 2,135,100 square feet of office¹⁰⁹ and 1,267,500 square feet of R&D, 300,000 square feet of industrial space, 53,500 square feet of tenant amenity space, and 1,600 residential units. Both scenarios include 112,400 square feet of retail and 154,700 square feet of civic uses.¹¹⁰

The 2013 Specific Plan assumed construction of a new loop road which would extend northward from the current termination point of Demeter Street and connect with University Avenue near the East Palo Alto City limits. The loop road was intended to provide a direct route between the Specific Plan area and University Avenue. To provide options for the City Council to help inform the choice of whether to implement the Loop Road, the TA included an analysis with the loop road and without (i.e. with a multi-use trail). Since the 2013 Specific Plan was approved, the City of East Palo Alto adopted a new transportation analysis policy in July 2020 that establishes the thresholds for transportation impacts under CEQA based on VMT. Non-CEQA transportation issues, including local transportation operations, intersection level of service, and recommended transportation improvements are discussed under Section 3.16-3 and in Appendix F of this document for informational purposes.

¹⁰⁸ The 32,650 square foot Ravenswood Health Center was subtracted from the allowed office development given it was constructed under the 2013 Specific Plan and is in operation

¹⁰⁹ Ibid.

¹¹⁰ Although the 25,000 square foot EPACenter (civic use) was constructed and in operation under the 2013 Specific Plan by 2022, the square footage was not subtracted from the allowed development for the purposes of the Traffic Analysis. Therefore, the evaluation of traffic generated by civic uses is a conservative estimate.

3.16.2.1 *Project Impacts*

- a) Would the project conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities?
-

The 2013 Specific Plan EIR concluded that under existing conditions the bicycle transportation system was incomplete in the Specific Plan area. The 2013 Specific Plan would add/improve bicycle facilities to the Plan area to complete some of the missing links in the bicycle system. The loop road was assumed to include a Class I bicycle facility. With implementation of these potential bicycle facilities, the 2013 EIR concluded there would be good regional connections to the north and to the south and that implementation of the 2013 Specific Plan would have a less than significant impact on bicycle facilities.

The 2013 Specific Plan EIR concluded that many portions of the Specific Plan area have no continuous sidewalks. Mitigation Measures MM TRA-10a and MM TRA-10a were included to add/improve pedestrian facilities in the Specific Plan area. These measures included the addition of continuous sidewalks on all streets of the Plan area and off-street pedestrian paths. With the implementation of these measures, the impacts of the 2013 Specific Plan would be less than significant.

The 2013 Specific Plan EIR concluded that TDM measures could include to encourage transit such as future tenants offering employees discount transit passes or parking cash out. Some employers could operate shuttle services or subscription bus services. Based on the conclusions of the 2013 EIR, although the Specific Plan could increase the transit mode share, it would not result in a significant impact to transit services.

Bicycle Facilities

As mentioned in Section 3.16-1, while there are Class I and II bicycle facilities present in the immediate project vicinity, no bicycle facilities are provided within other local and neighborhood streets surrounding the plan area. Due to low traffic volumes, streets within the University Village neighborhood and many of the streets immediately adjacent to the plan area are conducive to bicycle traffic.

The Specific Plan Update would include the following new bicycle facilities within the Specific Plan area, consistent with the City of East Palo Alto Bicycle Transportation Plan:

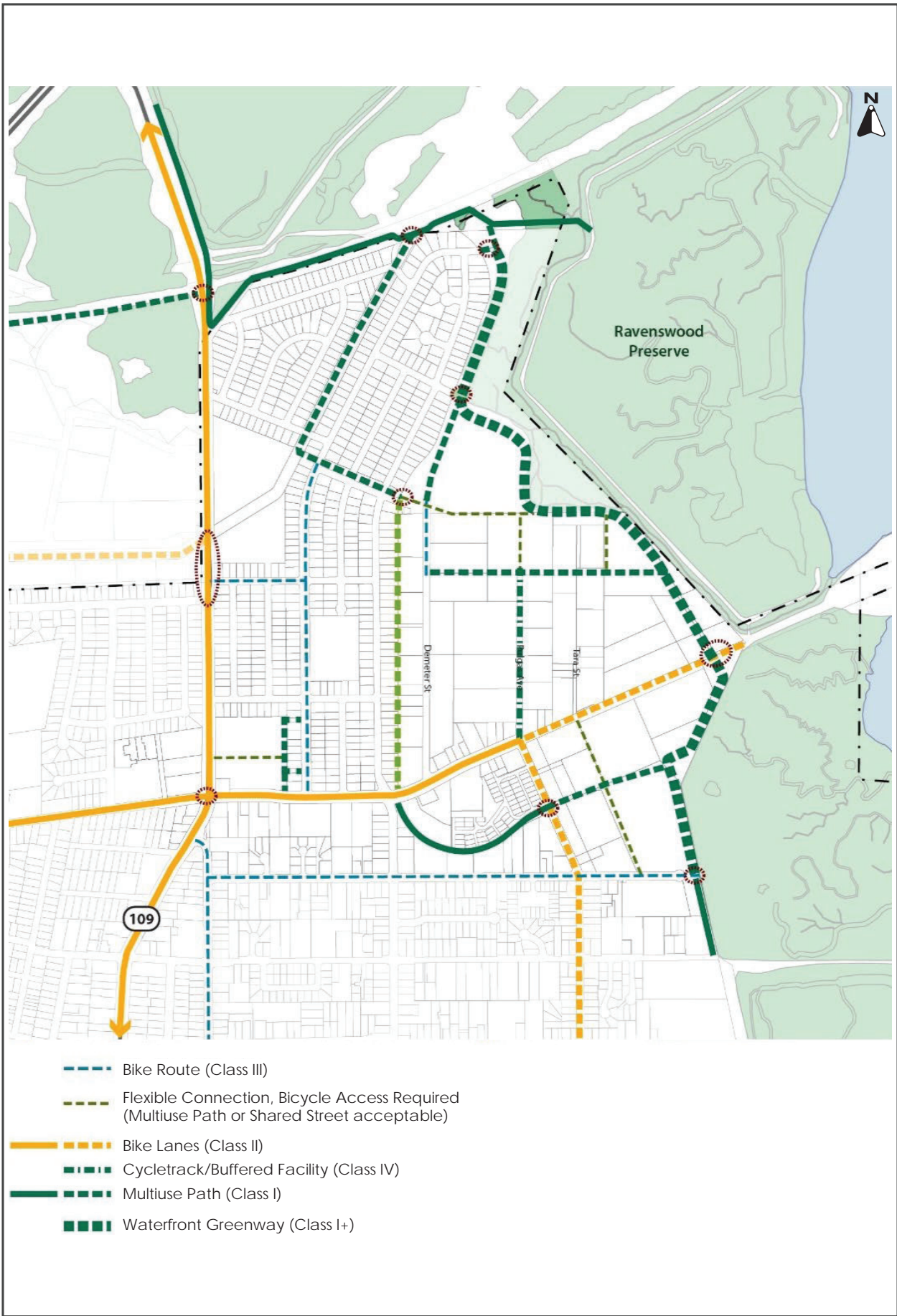
- Class I (Bicycle Paths):
 - New east-west connection between Tara Road and the Bay Trail
 - New north-south connection parallel to Demeter Street between Bay Road and Purdue Avenue
 - New east-west connection between the eastern terminus of Purdue Avenue and

- Demeter Street
- New east-west connection between Pulgas Avenue and the Bay Trail, south of Bay Road
- Class II (Bicycle Lanes):
 - Pulgas Avenue, south of Bay Road
- Class III (Bicycle Routes):
 - Fordham Street, north of Notre Dame
 - Weeks Street, between Cooley Avenue and Bay Trail
 - Clarke Avenue, south of Bay Road
 - Cooley Avenue, south of University Avenue and US 101

Additionally, the City of East Palo Alto Bicycle Transportation Plan also identified a new east-west Class I bicycle path parallel to Purdue Avenue and a new north-south Class I bicycle path adjacent to Fordham Street. As mentioned in the TA, these connections may not be feasible due to right-of-way constraints; therefore, the Specific Plan Update proposes construction of Class I and Class II bicycle facilities along Fordham Street (along the public utilities corridor parallel to Fordham Street) and Pulgas Avenue (north of Bay Road), respectively. The Specific Plan Update would construct new streets to the Plan area and would enhance bicycle access (refer to Figure 3.16-4 which shows the proposed bicycle network). As a part of the Specific Plan Update, Scenarios 1 and 2, a multi-use path would be constructed, with or without a loop road. The multi-use path would be a pedestrian and bicycle trail. The multi-use path without the loop road would be 30 feet wide along the western perimeter of the Specific Plan area (east of University Village) and 50 feet wide along the northern perimeter. The loop road would include a multi-use path 14-foot wide along the western perimeter of the Plan area (east of University Village) and northern perimeter. Given the width of the multi-use path compared to the loop road (since the loop road would also include travel lanes), the multi-use path option without the loop road could accommodate more bicycles than the loop road option, which would enhance bicycle access. For these reasons, implementation of the proposed project would not conflict with any policies or plans regarding bicycle facilities or decrease the safety of these facilities. **(Less than Significant Impact)**

Pedestrian Facilities

Pedestrian facilities in the Specific Plan area consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. As mentioned previously, many street segments within the plan area (e.g., Pulgas Avenue, Tara Road, Bay Road, University Avenue, and Runnymede Street) lack sidewalks. As parcels within the Specific Plan area redevelop, sidewalks would be added to each of these segments. The Specific Plan Update would also include new streets to provide pedestrians with new continuous sidewalk facilities and high visibility crosswalks at intersections. As stated above, the multi-use path option without the loop road would have a greater width than the option with the loop road; therefore, the multi-use path without the loop road would accommodate more pedestrians than the loop road option.



PROPOSED BICYCLE NETWORK

FIGURE 3.16-4

The Specific Plan Update would improve and add new pedestrian facilities; therefore, the proposed Specific Plan Update would not conflict with a program, plan, ordinance, or policy addressing the pedestrian circulation system (refer to Figure 3.16-5 which shows the proposed pedestrian facilities/improvements). **(Less than Significant Impact)**

Transit Facilities

The Specific Plan area is served by five SamTrans bus routes with stops along Bay Road, University Avenue, Fordham Street, Notre Dame Avenue, Purdue Avenue, and Pulgas Avenue. The Specific Plan area is located approximately three miles from the Palo Alto Caltrain Station and Menlo Park Caltrain Station. Additionally, Samtrans adopted a new bus route, EPX, which connects East Palo Alto and San Bruno BART. The Specific Plan area would include bus stops that would allow for shuttle or other micro transit services. The Specific Plan Update would provide new connections that would enable vehicles, bicyclists, and pedestrians to travel to and from the potential Dumbarton Rail line¹¹¹ at the northern edge of the Specific Plan area (refer to Figure 3.16-6 which shows the future transit network). The loop road would reduce congestion on Bay Road and University which would facilitate bus and shuttle services providing transit to residents/employees in the Specific Plan area along these roadways. The implementation of the proposed Specific Plan Update would not conflict with any policies or plans regarding transit facilities or decrease the safety of these facilities. **(Less than Significant Impact)**

Roadway Network

Plan Bay Area 2050

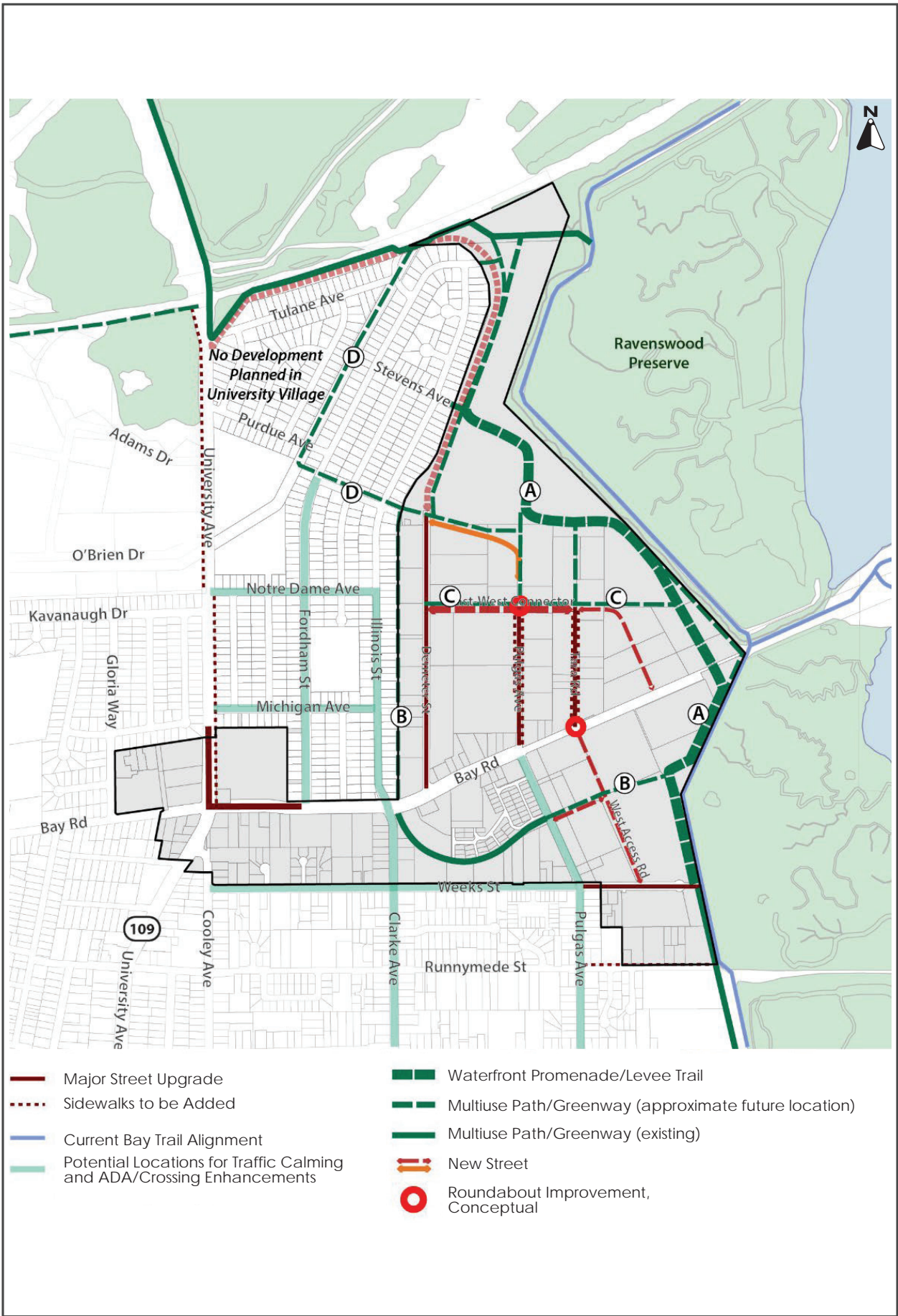
Chapter 4 of Plan Bay Area 2050 describes the long-range vision for transportation in the Bay Area and focuses on three strategies: 1) maintain and optimize the existing transportation system, 2) create healthy and safe streets, and 3) build a next-generation transit network. The proposed Specific Plan is consistent with the transportation strategies in Plan Bay Area 2050 by building a complete streets network that prioritizes pedestrians and bicyclists, including facilities supporting pedestrians and bicyclists with either the loop road or multi-use path. **(Less than Significant Impact)**

City of East Palo Alto General Plan Policies and Local LOS Standards

The Specific Plan Update is consistent with the General Plan Policies identified in Section 3.16.1.1 pertaining to the roadway network by:

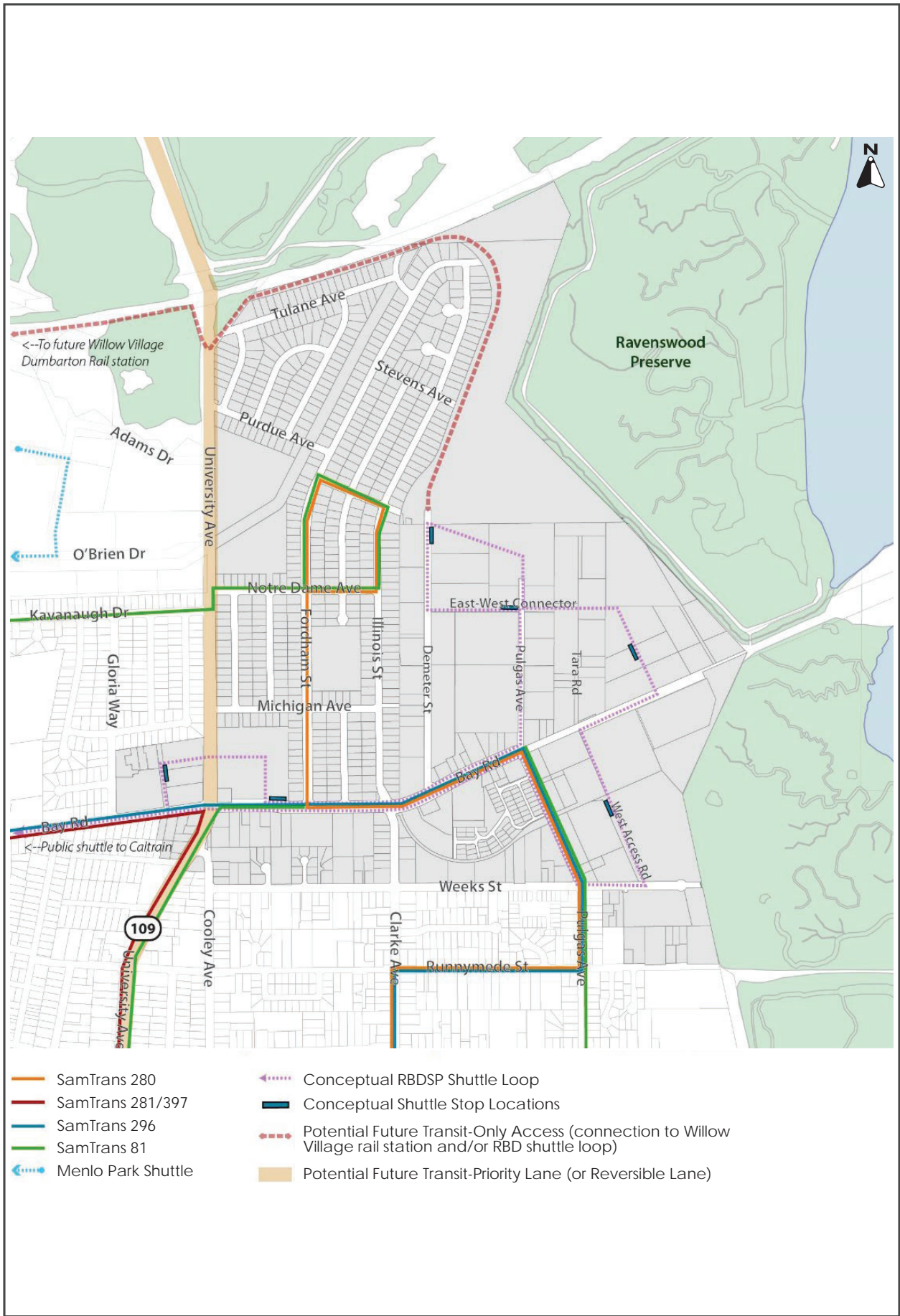
- Improving the East Palo Alto circulation system roadways in concert with land development to maintain adequate LOS for automobile travel.
- Requiring future developments to implement effective TDM programs to reduce travel demand from existing and new development
- Requiring future developments to pay a multimodal transportation impact fee for improving all modes of transportation

¹¹¹ The potential for Dumbarton Rail service and new station locations are uncertain at this time.



PROPOSED PEDESTRIAN IMPROVEMENTS

FIGURE 3.16-5



PROPOSED TRANSIT NETWORK

FIGURE 3.16-6

In addition, the cities of East Palo Alto, Menlo Park and Palo Alto have LOS standards and definitions for vehicular delay which would create an operational deficiency in LOS at an intersection. For the complete list of study intersections refer to Appendix F of this Draft SEIR.

Congestion Management Program

As discussed under Impact TRN-2 below, the Specific Plan Update is consistent with the City's VMT Policy. A Transportation Analysis (TA) was completed for the Specific Plan Update pursuant to the City and CMP guidelines and is included in Appendix F of this SEIR. The results of the TA showed that the buildout of the Specific Plan Update would result in LOS operational deficiencies under existing plus project conditions at 21 study intersections for both development scenarios (with the loop road or multi-use trail), one intersection with the future loop road for both scenarios, two intersections for scenario 2 without the loop road (i.e. multi-use trail), and one intersection for both scenarios (scenario 1, with the loop road and scenario 2, with both the loop road and multi-use trail). Cumulative plus project conditions represent traffic in year 2040 from the buildout of the General Plan and buildout of the Specific Plan Update. As noted above, LOS operational deficiencies are not considered an environmental impact under CEQA.

Table 3.16-2 through Table 3.16-5 summarize the LOS of affected intersections under existing, existing plus Specific Plan, cumulative, and cumulative plus Specific Plan conditions. Conditions with the loop road and the multi-use trail are also provided to show the benefit of trips being carried on the loop road versus existing streets if only the multi-use trail is implemented in lieu of the loop road.

Table 3.16-2: Existing Plus Specific Plan Intersection Levels of Service (Scenario 1)

Intersection	Peak Hour	Existing		Existing Plus Project										Existing Plus Project w/Improvements					
				Without Loop Road				With Loop Road						Without Loop Road			With Loop Road		
		Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Δ In Avg Delay	Δ In Avg Critical Delay	Δ In Critical V/C	Avg Delay (sec/veh)	LOS	Δ In Avg Delay	Δ In Avg Critical Delay	Δ In Critical V/C	Avg Delay (sec/veh)	LOS	Δ In Avg Critical Delay	Avg Delay (sec/veh)	LOS	Δ In Avg Critical Delay
1 - Willow Rd & Bayfront Expy	AM	>120	F	O/S	F	23.7	--	--	O/S	F	15.3	--	--	Multimodal Improvement					
	PM	>120	F	O/S	F	40.6	--	--	O/S	F	28.7	--	--						
2 – Willow Rd & Newbridge St <i>Newbridge St EB</i> <i>Newbridge St WB</i>	AM	93.4	F	O/S	F	14.0	37.0	--	O/S	F	13.1	40.4	--	O/S	F	33.9	O/S	F	32.2
		62.9	E	60.3	E	--	<0.8	--	60.9	E	--	<0.8	--	75.0	E	15.6	75.8	E	16.4
		>120	F	>120	F	--	103.7	--	>120	F	--	>120	--	49.1	D	<0.8	50.0	D	<0.8
2 – Willow Rd & Newbridge St <i>Newbridge St EB</i> <i>Newbridge St WB</i>	PM	>120	F	O/S	F	8.1	4.3	--	O/S	F	11.0	10.4	--	O/S	F	<0.8	O/S	F	<0.8
		62.8	E	65.8	E	--	3.8	--	64.8	E	--	2.4	--	85.1	F	22.2	62.3	E	<0.8
		>120	F	>120	F	--	11.0	--	>120	F	--	<0.8	--	49.8	D	<0.8	50.0	D	<0.8
3 - University Ave & Bayfront Expy	AM	11.4	B	14.3	B	<4	--	--	15.1	B	<4	--	--	Multimodal Improvement					
	PM	94.1	F	113.6	F	19.5	--	--	117.7	F	23.6	--	--						
5 - Euclid Ave and East Bayshore Rd/Donohoe St ^{2,4,5} <i>(All-way Stop)</i>	AM	73.8	F	62.0	F	-11.8	--	--	63.5	F	-10.3	--	--	64.6	E	--	67.2	E	--
	PM	46.39	E	87.0	F	40.1	--	--	77.5	F	30.6	--	--	34.8	C	--	37.3	D	--
6 - US 101 NB On-Ramp and Donohoe St ^{2,3,4,5} <i>(Uncontrolled)</i>	AM	48.7	E	70.4	F	21.7	--	--	88.9	F	40.2	--	--	30.5	C	--	32.3	C	--
	PM	10.6	B	23.6	C	13.0	--	--	23.1	C	12.5	--	--	16.1	B	--	16.2	B	--
7 - University Ave (SR 109) and Loop Rd	AM	--	--	--	--	--	--	--	22.5	C	--	--	--	--	--	--	14.4	B	--
	PM	--	--	--	--	--	--	--	>120	F	--	--	--	--	--	--	34.3	C	--

Table 3.16-2: Existing Plus Specific Plan Intersection Levels of Service (Scenario 1)

Intersection	Peak Hour	Existing		Existing Plus Project									Existing Plus Project w/Improvements						
		AVG Delay (sec/veh)	LOS	Without Loop Road				With Loop Road					Without Loop Road			With Loop Road			
				AVG Delay (sec/veh)	LOS	Δ in AVG Delay	Δ in AVG Critical Delay	Δ in Critical V/C	AVG Delay (sec/veh)	LOS	Δ in AVG Delay	Δ in AVG Critical Delay	Δ in Critical V/C	AVG Delay (sec/veh)	LOS	Δ in AVG Critical Delay	AVG Delay (sec/veh)	LOS	Δ in AVG Critical Delay
<i>(Future Two-way Stop)</i>																			
8 - University Avenue and Purdue Avenue ^{1,4,6} <i>(Two-way Stop)</i>	AM	18.9	C	22.1	C	--	--	--	19.2	C	--	--	--	--	--	--	--	--	--
	PM	47.5	E	92.3	F	--	--	--	47.6	E	--	--	--	--	--	--	--	--	--
	PM	7.9	A	8.3	A	--	0.5	0.024	7.9	A	--	0.0	0.000	--	--	--	--	--	--
11 - University Ave and Bay Rd ⁵	AM	41.7	D	>120	F	--	>60	0.630	80.8	F	--	>60	0.444	53.4	D	--	49.1	D	--
	PM	48.4	D	97.3	F	--	>60	0.369	71.7	E	--	32.2	0.230	53.1	D	--	50.5	D	--
14 - University Ave and Donohoe St. ⁵	AM	110.2	F	106.4	F	-3.8	--	--	108.6	F	-1.7	--	--	81.5	F	--	86.9	F	--
	PM	81.7	F	>120	F	>60	--	--	>120	F	>60	--	--	69.5	E	--	71.9	E	--
15 - University Ave and US 101 SB Off-Ramp ²	AM	103.7	F	>120	F	19.3	--	--	100.9	F	-2.7	--	--	60.0	E	--	7736	E	--
	PM	99.4	F	>120	F	>60	--	--	>120	F	>60	--	--	52.8	D	--	46.3	D	--
16 - University Ave and Woodland Ave ²	AM	66.6	E	72.1	E	5.4	--	--	77.4	E	10.8	--	--	51.4	D	--	57.0	E	--
	PM	>120	F	>120	F	>60	--	--	>120	F	>60	--	--	>120	F	--	>120	F	--
17 - University Circle and Woodland Ave ²	AM	20.0	C	18.1	B	-1.9	--	--	19.4	B	-0.6	--	--	10.2	B	--	16.1	B	--
	PM	>120	F	>120	F	>60	--	--	>120	F	>60	--	--	30.9	C	--	25.1	C	--
18 - US 101 NB Off-Ramp and Donohoe St. ^{2,5}	AM	53.2	D	>120	F	>60	--	--	>120	F	>60	--	--	37.4	D	--	40.2	D	--
	PM	>120	F	>120	F	27.1	--	--	>120	F	43.3	--	--	51.9	D	--	50.0	D	--
20 - East Bayshore Rd and Donohoe St. ²	AM	59.8	E	68.5	E	8.7	--	--	108.8	F	49.0	--	--	49.2	D	--	58.1	E	--
	PM	21.8	C	83.1	F	>60	--	--	66.9	E	45.1	--	--	48.9	D	--	48.5	D	--

Table 3.16-2: Existing Plus Specific Plan Intersection Levels of Service (Scenario 1)

Intersection	Peak Hour	Existing		Existing Plus Project									Existing Plus Project w/Improvements						
		AVG Delay (sec/veh)	LOS	Without Loop Road				With Loop Road					Without Loop Road			With Loop Road			
				AVG Delay (sec/veh)	LOS	Δ in AVG Delay	Δ in AVG Critical Delay	Δ in Critical V/C	AVG Delay (sec/veh)	LOS	Δ in AVG Delay	Δ in AVG Critical Delay	Δ in Critical V/C	AVG Delay (sec/veh)	LOS	Δ in AVG Critical Delay	AVG Delay (sec/veh)	LOS	Δ in AVG Critical Delay
21 - Clarke Ave and Bay Rd ⁴ (All-way Stop)	AM	18.4	C	>120	F	--	>60	1.746	>120	F	--	>60	1.220	22.9	C	--	18.9	B	--
	PM	18.6	C	>120	F	--	>60	1.401	>120	F	--	>60	1.18	16.9	B	--	16.3	B	--
23 - Clarke Ave and Runnymede St ⁴ (All-way Stop)	AM	16.1	C	>120	F	--	>60	0.710	102.1	F	--	>60	0.547	26.3	C	--	19.9	B	--
	PM	13.3	B	76.7	F	--	>60	0.535	68.4	F	--	55.1	0.457	19.9	B	--	21.9	C	--
26 - Demeter St and Bay Rd ^{1,4} (Two-way Stop)	AM	16.1	C	O/S	F	--	--	--	>120	F	--	--	--	18.6	B	--	14.6	B	--
	PM	15.8	C	>120	F	--	--	--	>120	F	--	--	--	28.7	C	--	22.0	C	--
27 - Pulgas Ave and Bay Rd ^{4,5} (All-way Stop)	AM	10.8	B	>120	F	--	>60	1.435	>120	F	--	>60	1.491	31.9	C	--	29.9	C	--
	PM	18.1	C	>120	F	--	>60	1.083	>120	F	--	>60	0.976	41.6	D	--	54.9	D	--
28 - Pulgas Ave and Weeks St ⁴ (All-way Stop)	AM	9.5	A	31.6	D	--	22.1	0.593	27.2	D	--	17.8	0.559	--	--	--	--	--	--
	PM	11.6	B	27.6	D	--	15.9	0.331	26.7	D	--	15.0	0.323	--	--	--	--	--	--
29 - Pulgas Ave and Runnymede St ^{4,5} (All-way Stop)	AM	15.0	C	>120	F	--	>60	0.805	117.8	F	--	>60	0.810	40.5	D	--	23.9	C	--
	PM	16.4	C	76.4	F	--	60.0	0.392	58.0	F	--	41.7	0.280	16.5	B	--	16.7	B	--
34 - University Ave (SR 109) and Adams Dr ^{1,4} (Two-way Stop)	AM	88.3	F	>120	F	--	--	--	91.1	F	--	--	--	8.9	A	--	8.0	A	--
	PM	>120	F	>120	F	--	--	--	>120	F	--	--	--	23.1	C	--	20.6	C	--
39 - University Ave and 4	AM	--	--	>120	F	--	--	--	65.1	F	--	--	--	16.2	C	--	14.0	B	--

Table 3.16-2: Existing Plus Specific Plan Intersection Levels of Service (Scenario 1)

Intersection	Peak Hour	Existing		Existing Plus Project										Existing Plus Project w/Improvements					
		AVG Delay (sec/veh)	LOS	Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				AVG Delay (sec/veh)	LOS	Δ in AVG Delay	Δ in AVG Critical Delay	Δ in Critical V/C	AVG Delay (sec/veh)	LOS	Δ in AVG Delay	Δ in AVG Critical Delay	Δ in Critical V/C	AVG Delay (sec/veh)	LOS	Δ in AVG Critical Delay	AVG Delay (sec/veh)	LOS	Δ in AVG Critical Delay
Corners Dwy <i>(Future Two-way Stop)</i>	PM	--	--	>120	F	--	--	--	60.1	F	--	--	--	28.6	D	--	19.5	C	--
40 - 4 Corners Dwy and Bay Rd <i>(Future Two-way Stop)</i>	AM	--	--	32.7	D	--	--	--	24.1	C	--	--	--	12.8	B	--	11.9	B	--
	PM	--	--	>120	F	--	--	--	>120	F	--	--	--	31.3	D	--	38.1	E	--
42 - Pulgas Ave and Emmerson St <i>(Future Two-way Stop)</i>	AM	--	--	30.8	D	--	--	--	43.7	E	--	--	--	--	--	--	6.5	A	--
	PM	--	--	18.7	C	--	--	--	20.4	C	--	--	--	--	--	--	4.5	A	--
45 - Tara Road and Bay Road ^{1,4} <i>(Two-way Stop)</i>	AM	--	--	>120	F	--	--	--	57.3	F	--	--	--	9.5	A	--	8.3	A	--
	PM	--	--	56.2	F	--	--	--	50.4	F	--	--	--	6.7	A	--	6.2	A	--

Source: Hexagon Transportation Consultants, Inc. *Ravenswood Specific Plan Update Transportation Analysis*. March 7, 2023.

Notes:
Bold indicates an adverse effect as a result of the project.
 O/S = Oversaturated. O/S indicates that the intersection would experience capacity issues where the demand cannot be served by the intersection. Oversaturated intersections would operate at LOS F.
 Δ = change

Table 3.16-3: Existing Plus Specific Plan Intersection Levels of Service (Scenario 2)

Intersection	Peak Hour	Existing		Existing Plus Project										Existing Plus Project w/Improvements					
				Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay
1 - Willow Rd & Bayfront Expy	AM	>120	F	O/S	F	25.2	--	--	O/S	F	18.8	--	--	Multimodal Improvement					
	PM	>120	F	O/S	F	48.7	--	--	O/S	F	39.8	--	--						
2 – Willow Rd & Newbridge St Newbridge St EB Newbridge St WB	AM	93.4	F	O/S	F	15.2	41.0	--	O/S	F	45.1	30.7	--	O/S	F	34.9	O/S	F	30.7
		62.9	E	60.9	E	--	<0.8	--	62.2	E	--	<0.8	--	75.4	E	15.6	62.2	E	<0.8
		>120	F	>120	F	--	113.4	--	49.0	F	--	<0.8	--	49.2	D	<0.8	49.0	D	<0.8
2 – Willow Rd & Newbridge St Newbridge St EB Newbridge St WB	PM	>120	F	O/S	F	15.5	9.5	--	O/S	F	17.5	8.6	--	O/S	F	<0.8	O/S	F	<0.8
		62.8	E	60.9	E	--	1.9	--	63.8	E	--	0.9	--	83.5	F	20.4	82.7	F	19.1
		>120	F	>120	F	--	<0.8	--	>120	F	--	<0.8	--	49.1	D	<0.8	49.2	D	<0.8
3 - University Ave & Bayfront Expy	AM	11.4	B	14.9	B	<4	--	--	15.8	B	4.4	--	--	Multimodal Improvement					
	PM	94.1	F	117.2	F	23.1	--	--	>120	F	27.8	--	--						
5 - Euclid Ave and East Bayshore Rd/Donohoe St ^{2,4,5} (All-way Stop)	AM	73.8	F	62.4	F	-11.4	--	--	72.3	F	-1.4	--	--	70.0	E	--	74.6	E	--
	PM	46.39	E	104.2	F	57.3	--	--	98.2	F	51.2	--	--	45.5	D	--	37.9	D	--
6 - US 101 NB On-Ramp and Donohoe St ^{2,3,4,5} (Uncontrolled)	AM	48.7	E	89.7	F	41.0	--	--	87.7	F	39.0	--	--	47.1	D	--	31.3	C	--
	PM	10.6	B	25.5	D	14.9	--	--	22.3	C	11.7	--	--	15.4	B	--	16.3	B	--
7 - University Ave (SR 109)	AM	--	--	--	--	--	--	--	26.9	D	--	--	--	--	--	--	15.4	B	--
	PM	--	--	--	--	--	--	--	>120	F	--	--	--	--	--	--	41.0	D	--

Table 3.16-3: Existing Plus Specific Plan Intersection Levels of Service (Scenario 2)

Intersection	Peak Hour	Existing		Existing Plus Project									Existing Plus Project w/Improvements						
				Without Loop Road					With Loop Road				Without Loop Road			With Loop Road			
		Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay		
and Loop Rd (Future) ^{1,4} (Two-way Stop)																			
8 - University Avenue and Purdue Avenue ^{1,4,6} (Two-way Stop)	AM	18.9	C	26.8	D	--	--	--	19.2	C	--	--	--	13.4	B	--	--	--	--
	PM	47.5	E	>120	F	--	--	--	50.4	F	--	--	--	10.6	B	--	--	--	--
11 - University Ave and Bay Rd ⁵	AM	41.7	D	>120	F	--	>60	0.663	95.4	F	--	>60	0.5	54.5	D	--	53.0	D	--
	PM	48.4	D	108.4	F	--	>60	0.420	73.8	E	--	34.9	0.2	56.7	E	--	50.6	D	--
14 - University Ave and Donohoe St. ⁵	AM	110.2	F	113.4	F	3.2	--	--	108.7	F	-1.5	--	--	99.8	F	--	81.0	F	--
	PM	81.7	F	>120	F	>60	--	--	>120	F	>60	--	--	70.9	E	--	74.2	E	--
15 - University Ave and US 101 SB Off-Ramp ²	AM	103.7	F	>120	F	28.2	--	--	102.9	F	-0.8	--	--	56.8	E	--	70.6	E	--
	PM	99.4	F	>120	F	>60	--	--	>120	F	>60	--	--	57.9	E	--	44.6	D	--
16 - University Ave and Woodland Ave ²	AM	66.6	E	78.2	E	11.6	--	--	81.7	F	15.0	--	--	66.1	E	--	54.7	D	--
	PM	>120	F	>120	F	>60	--	--	>120	F	>60	--	--	>120	F	--	>120	F	--
17 - University Circle and Woodland Ave ²	AM	20.0	C	16.7	B	-3.4	--	--	19.8	B	-0.2	--	--	37.7	D	--	12.7	B	--
	PM	>120	F	>120	F	>60	--	--	>120	F	>60	--	--	30.5	C	--	31.0	C	--
18 - US 101 NB Off-Ramp and Donohoe St. ^{2,5}	AM	53.2	D	>120	F	>60	--	--	>120	F	>60	--	--	43.1	D	--	35.4	D	--
	PM	>120	F	>120	F	37.7	--	--	>120	F	51.2	--	--	40.8	D	--	40.7	D	--
	AM	59.8	E	78.8	E	19.0	--	--	92.1	F	32.3	--	--	33.1	C	--	49.9	D	--

Table 3.16-3: Existing Plus Specific Plan Intersection Levels of Service (Scenario 2)

Intersection	Peak Hour	Existing		Existing Plus Project										Existing Plus Project w/Improvements					
				Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
		Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay		
20 - East Bayshore Rd and Donohoe St ²	PM	21.8	C	56.1	E	34.3	--	--	78.7	E	56.9	--	--	30.8	C	--	32.4	C	--
21 - Clarke Ave and Bay Rd ⁴ (All-way Stop)	AM	18.4	C	>120	F	--	>60	1.889	>120	F	--	>60	1.4	36.3	D	--	20.7	C	--
	PM	18.6	C	>120	F	--	>60	1.524	>120	F	--	>60	1.2	20.1	C	--	16.0	B	--
23 - Clarke Ave and Runnymede St ⁴ (All-way Stop)	AM	16.1	C	>120	F	--	>60	0.971	>120	F	--	>60	0.7	33.6	C	--	22.7	C	--
	PM	13.3	B	>120	F	--	>60	0.767	96.0	F	--	>60	0.6	23.1	C	--	23.6	C	--
26 - Demeter St and Bay Rd ^{1,4} (Two-way Stop)	AM	16.1	C	O/S	F	--	--	--	>120	F	--	--	--	16.0	B	--	17.1	B	--
	PM	15.8	C	>120	F	--	--	--	>120	F	--	--	--	36.1	D	--	24.5	C	--
27 - Pulgas Ave and Bay Rd ^{4,5} (All-way Stop)	AM	10.8	B	>120	F	--	>60	1.604	>120	F	--	>60	1.7	42.4	D	--	36.4	D	--
	PM	18.1	C	>120	F	--	>60	1.279	>120	F	--	>60	1.3	48.0	D	--	36.4	D	--
28 - Pulgas Ave and Weeks St ⁴ (All-way Stop)	AM	9.5	A	44.4	E	--	34.9	0.671	34.0	D	--	--	--	7.2	A	--	--	--	--
	PM	11.6	B	34.8	D	--	23.2	0.390	31.7	D	--	--	--	18.9	B	--	--	C	--
29 - Pulgas Ave and Runnymede St ^{4,5} (All-way Stop)	AM	15.0	C	>120	F	--	>60	0.851	>120	F	--	>60	0.9	33.5	C	--	29.3	B	--
	PM	16.4	C	108.0	F	--	>60	0.530	65.1	F	--	48.7	0.3	15.3	B	--	17.4	--	--
34 - University Ave (SR 109) and Adams Dr ^{1,4} (Two-way Stop)	AM	88.3	F	>120	F	--	12.9	0.227	104.7	F	--	--	--	8.9	A	--	9.4	A	--
	PM	>120	F	>120	F	--	0.9	0.046	>120	F	--	--	--	24.2	C	--	20.6	C	--

Table 3.16-3: Existing Plus Specific Plan Intersection Levels of Service (Scenario 2)

Intersection	Peak Hour	Existing		Existing Plus Project										Existing Plus Project w/Improvements					
				Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay
39 - University Ave and 4 Corners Dwy <i>(Future Two-way Stop)</i>	AM	--	--	>120	F	--	--	--	77.6	F	--	--	--	16.4	C	--	14.5	B	--
	PM	--	--	>120	F	--	--	--	75.5	F	--	--	--	33.1	D	--	19.5	C	--
40 - 4 Corners Dwy and Bay Rd <i>(Future Two-way Stop)</i>	AM	--	--	39.6	E	--	--	--	27.8	D	--	--	--	13.0	B	--	12.3	B	--
	PM	--	--	>120	F	--	--	--	>120	F	--	--	--	45.3	E	--	38.0	E	--
42 - Pulgas Ave and Emmerson St <i>(Future Two-way Stop)</i>	AM	--	--	41.6	E	--	--	--	O/S	F	--	--	--	6.8	A	--	7.6	A	--
	PM	--	--	25.8	D	--	--	--	23.8	C	--	--	--	5.3	A	--	4.8	A	--
45 - Tara Road and Bay Road ^{1,4} <i>(Two-way Stop)</i>	AM	--	--	>120	F	--	--	--	>120	F	--	--	--	11.6	B	--	9.9	A	--
	PM	--	--	>120	F	--	--	--	108.3	F	--	--	--	8.0	A	--	7.2	A	--

Source: Hexagon Transportation Consultants, Inc. *Ravenswood Specific Plan Update Transportation Analysis*. March 7, 2023.

Notes:

Bold indicates an adverse effect as a result of the project.

O/S = Oversaturated. O/S indicates that the intersection would experience capacity issues where the demand cannot be served by the intersection. Oversaturated intersections would operate at LOS F.

Δ = change

Table 3.16-4: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 1)

Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project										Cumulative Plus Project w/Improvements					
		Avg Delay (sec/veh)	LOS	Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay
1 - Willow Rd & Bayfront Expy	AM	O ERSAT	--	O ERSAT	F	<4	--	--	O/S	--	<4	--	--	Multimodal Improvement					
	PM	O ERSAT	--	O ERSAT	F	31.0	--	--	O ERSAT	--	21.6	--	--						
2 – Willow Rd & Newbridge St Newbridge St EB Newbridge St WB	AM	O ERSAT	--	O ERSAT	--	4	0.8	--	O ERSAT	--	4	0.8	--	O/S	F	<0.8	O/S	F	<0.8
		67.3	E	68.7	E	--	1.9	--	67.8	E	--	1.7	--	68.6	E	<0.8	99.6	F	41.7
		>120	--	>120	F	--	<0.8	--	>120	F	--	<0.8	--	45.9	D	<0.8	48.7	D	<0.8
2 – Willow Rd & Newbridge St Newbridge St EB Newbridge St WB	PM	O ERSAT	E	O ERSAT	--	<4	28.5	--	O ERSAT	F	4	<0.8	--	O ERSAT	--	<0.8	O ERSAT	F	<0.8
		58.6	E	58.4	E	--	<0.8	--	58.4	E	--	1.7	--	73.8	E	20.9	74.0	E	22.3
		>120	--	>120	--	--	<0.8	--	>120	F	--	<0.8	--	54.1	D	<0.8	51.8	D	<0.8
3 - University Ave & Bayfront Expy	AM	20.7	C	20.1	C	<4	--	--	21.8	C	<4	--	--	Multimodal Improvement					
	PM	120	F	>120	F	5.4	--	--	>120	F	6.6	--	--						
5 - Euclid Ave and East Bayshore Rd/Donohoe St ^{2,4,5} (All-way Stop)	AM	78.8	--	86.6	F	7.8	--	--	86.1	F	7.3	--	--	>120	F	--	>120	F	--
	PM	67.0	--	65.8	F	-1.2	--	--	63.8	F	-3.2	--	--	51.3	D	--	54.6	D	--
6 - US 101 NB On-Ramp and Donohoe St ^{2,3,4,5} (Uncontrolled)	AM	O ERSAT	--	O ERSAT	--	N/A	--	--	O ERSAT	F	N/A	--	--	29.2	C	--	29.2	C	--
	PM	O ERSAT	--	O ERSAT	--	N/A	--	--	O ERSAT	F	N/A	--	--	18.8	B	--	17.8	B	--

Table 3.16-4: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 1)

Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project										Cumulative Plus Project w/Improvements					
		Avg Delay (sec/veh)	LOS	Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay
7 - University Ave (SR 109) and Loop Rd (Future) ^{1,4} (Two-way Stop)	AM	26.8	D	--	--	--	--	--	51.2	F	--	--	--	--	--	--	17.0	B	--
	PM	120	--	--	--	--	--	--	>120	F	--	--	--	--	--	--	51.9	D	--
8 - University Avenue and Purdue Avenue ^{1,4,6} (Two-way Stop)	AM	12.1	B	36.0	E	--	--	--	23.6	C	--	--	--	14.1	B	--	--	--	--
	PM	8.2	A	>120	F	--	--	--	48.9	E	--	--	--	20.5	C	--	--	--	--
11 - University Ave and Bay Rd ⁵	AM	43.2	D	108.4	F	--	>60	0.588	72.7	E	--	46.2	0.289	50.9	D	--	48.4	D	--
	PM	50.4	D	96.0	F	--	>60	0.379	83.2	F	--	53.6	0.334	52.4	D	--	52.3	D	--
14 - University Ave and Donohoe St. ⁵	AM	120	--	>120	F	8.3	--	--	>120	F	14.5	--	--	80.0	F	--	90.0	F	--
	PM	120	--	>120	F	0.4	--	--	>120	F	2.0	--	--	75.1	E	--	73.9	E	--
15 - University Ave and US 101 SB Off-Ramp ²	AM	76.5	E	117.4	F	10.8	--	--	116.6	F	40.1	--	--	65.6	E	--	63.7	E	--
	PM	120	--	>120	F	10.0	--	--	>120	F	-4.0	--	--	42.3	D	--	43.7	D	--
16 - University Ave and Woodland Ave ²	AM	120	--	>120	F	52.4	--	--	>120	F	>60	--	--	87.6	F	--	83.3	F	--
	PM	120	--	>120	F	29.0	--	--	>120	F	-8.9	--	--	>120	F	--	>120	F	--
17 - University Circle and Woodland Ave ²	AM	120	--	>120	F	>60	--	--	>120	F	>60	--	--	30.3	C	--	31.2	C	--
	PM	120	--	>120	F	53.6	--	--	>120	F	1.0	--	--	>120	F	--	>120	F	--

Table 3.16-4: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 1)

Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project										Cumulative Plus Project w/Improvements					
		Avg Delay (sec/veh)	LOS	Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay
18 - US 101 NB Off-Ramp and Donohoe St ^{2,5}	AM	120	--	>120	F	24.1	--	--	>120	F	>60	--	--	65.6	E	--	82.5	F	--
	PM	120	--	>120	F	<-60	--	--	>120	F	-0.6	--	--	47.4	D	--	97.6	F	--
19 - Cooley Ave and Donohoe St ^{2,5}	AM	120	--	>120	F	-2.9	--	--	>120	F	25.4	--	--	38.3	D	--	40.3	D	--
	PM	37.9	D	36.5	D	-1.4	--	--	35.7	D	-2.2	--	--	21.4	C	--	22.8	C	--
20 - East Bayshore Rd and Donohoe St ²	AM	120	--	>120	F	-3.0	--	--	>120	F	>60	--	--	68.4	E	--	71.0	E	--
	PM	51.1	D	44.0	D	-7.1	--	--	33.9	D	-17.2	--	--	15.8	B	--	16.9	B	--
21 - Clarke Ave and Bay Rd ⁴ (All-way Stop)	AM	18.2	B	>120	F	--	>60	0.762	>120	F	--	>60	0.273	32.5	C	--	21.3	C	--
	PM	17.4	B	>120	F	--	>60	0.796	>120	F	--	>60	0.326	17.1	B	--	16.4	B	--
23 - Clarke Ave and Runnymede St ⁴ (All-way Stop)	AM	76.7	--	>120	F	--	>60	0.465	>120	F	--	>60	0.454	33.1	C	--	23.5	C	--
	PM	69.9	--	>120	F	--	>60	0.499	>120	F	--	>60	0.314	33.0	C	--	24.9	C	--
26 - Demeter St and Bay Rd ^{1,4} (Two-way Stop)	AM	12.5	B	>120	F	--	--	--	>120	F	--	--	--	17.4	B	--	14.2	B	--
	PM	17.9	B	>120	F	--	--	--	66.9	F	--	--	--	28.5	C	--	20.2	C	--
27 - Pulgas Ave and Bay Rd ^{4,5} (All-way Stop)	AM	29.7	C	>120	F	--	>60	0.912	>120	F	--	>60	0.924	30.4	C	--	28.9	C	--
	PM	51.7	D	>120	F	--	>60	0.510	>120	F	--	>60	0.302	39.2	D	--	34.3	C	--

Table 3.16-4: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 1)

Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project										Cumulative Plus Project w/Improvements					
		Avg Delay (sec/veh)	LOS	Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay
28 - Pulgas Ave and Weeks St ⁴ <i>(All-way Stop)</i>	AM	19.7	C	44.7	E	--	24.9	0.206	36.1	E	--	16.4	0.158	8.0	A	--	7.0	A	--
	PM	26.4	D	30.4	D	--	3.9	0.038	35.0	E	--	8.6	0.076	17.0	B	--	15.6	B	--
29 - Pulgas Ave and Runnymede St ^{4,5} <i>(All-way Stop)</i>	AM	96.9	--	>120	F	--	>60	0.315	>120	F	--	37.4	0.182	25.7	C	--	19.6	B	--
	PM	58.0	--	96.7	F	--	38.7	0.105	84.9	F	--	26.9	0.086	18.5	B	--	17.2	B	--
30 - Pulgas Ave and O'Connor St <i>(All-way Stop)</i>	AM	25.5	D	27.0	D	--	1.6	-0.003	28.1	D	--	2.6	0.010	16.2	B	--	16.2	B	--
	PM	33.2	D	39.1	E	--	5.9	0.085	38.3	E	--	5.1	0.065	14.9	B	--	15.2	B	--
34 - University Ave (SR 109) and Adams Dr ^{1,4} <i>(Two-way Stop)</i>	AM	120	F	>120	F	--	--	--	>120	F	--	--	--	9.4	A	--	8.6	A	--
	PM	120	F	>120	F	--	--	--	>120	F	--	--	--	38.2	D	--	29.5	C	--
35 - Clark Ave and Schembri Ln/Garden St <i>(All-way Stop)</i>	AM	26.1	D	50.5	F	--	24.4	0.186	50.1	F	--	24.0	0.184	--	--	--	--	--	--
	PM	17.9	C	14.2	B	--	-3.7	-0.109	16.9	C	--	-1.0	0.036	--	--	--	--	--	--
39 - University Ave and 4 Corners Dwy <i>(Future Two-way Stop)</i>	AM	53.4	D	104.8	F	--	--	--	67.3	F	--	--	--	15.4	C	--	14.0	B	--
	PM	32.6	D	93.3	F	--	--	--	59.4	F	--	--	--	23.9	C	--	18.8	C	--

Table 3.16-4: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 1)

Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project										Cumulative Plus Project w/Improvements					
		Avg Delay (sec/veh)	LOS	Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical Delay	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay	Avg Delay (sec/veh)	LOS	Δ in Avg Critical Delay
40 - 4 Corners Dwy and Bay Rd <i>(Future Two-way Stop)</i>	AM	18.5	C	23.8	C	--	--	--	22.1	C	--	--	--	12.7	B	--	12.2	B	--
	PM	27.9	D	>120	F	--	--	--	>120	F	--	--	--	29.1	D	--	24.8	C	--
42 - Pulgas Ave and Emmerson St <i>(Future Two-way Stop)</i>	AM	19.7	C	26.9	D	--	--	--	29.8	D	--	--	--	--	--	--	--	--	--
	PM	13.8	B	18.4	C	--	--	--	19.5	C	--	--	--	--	--	--	--	--	--
45 - Tara Road and Bay Road ^{1,4} <i>(Two-way Stop)</i>	AM	22.4	C	>120	F	--	--	--	55.2	F	--	--	--	10	B	--	8.5	A	--
	PM	16.9	C	59.6	F	--	--	--	60.0	F	--	--	--	7	A	--	6.3	A	--

Source: Hexagon Transportation Consultants, Inc. Ravenswood Specific Plan Update Transportation Analysis. March 7, 2023.

Notes:

Bold indicates an adverse effect as a result of the project.

O ERSAT indicates that the result is out of software calculation limits

Δ = change

Table 3.16-5: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 2)

Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project										Cumulative Plus Project w/Improvements					
		AVG Delay (sec/veh)	LOS	Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				AVG Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical	Δ in Critical V/C	AVG Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical	Δ in Critical V/C	AVG Delay (sec/veh)	LOS	Δ in Avg Critical	AVG Delay (sec/veh)	LOS	Δ in Avg Critical
1 - Willow Rd & Bayfront Expy	AM	O ERSAT	F	O ERSAT	F	<4	--	--	O ERSAT	F	>4	--	--	Multimodal Improvement					
	PM	O ERSAT	F	O ERSAT	F	39.2	--	--	O ERSAT	F	26.4	--	--						
2 – Willow Rd & Newbridge St <i>Newbridge St EB</i> <i>Newbridge St WB</i>	AM	O ERSAT	E	O ERSAT	--	4	0.8	--	O ERSAT	F	4	0.8	--	O ERSAT	--	<0.8	O/S	F	<0.8
		67.3		67.4	E	--	1.0	--	67.6	E	--	1.3	--	59.3	E	<0.8	68.6	E	<0.8
		>120		>120	--	--	<0.8	--	>120	F	--	20.7	--	45.9	D	<0.8	47.0	D	<0.8
2 – Willow Rd & Newbridge St <i>Newbridge St EB</i> <i>Newbridge St WB</i>	PM	O ERSAT	E	O ERSAT	--	4	28.4	--	O ERSAT	--	<4	13.2	--	O ERSAT	--	0.8	O ERSAT	--	0.8
		58.6		57.1	E	--	<0.8	--	57.2	E	--	<0.8	--	70.4	E	12.9	69.2	E	12.1
		>120		>120	--	--	<0.8	--	>120	--	--	<0.8	--	51.4	D	0.8	51.5	D	0.8
3 - University Ave & Bayfront Expy	AM	20.7	C	20.2	C	<4	--	--	22.0	C	<4	--	--	Multimodal Improvement					
	PM	120	F	>120	F	8.8	--	--	>120	F	9.2	--	--						
5 - Euclid Ave and East Bayshore Rd/Donohoe St ^{2,4,5} <i>(All-way Stop)</i>	AM	78.8	--	88.6	F	9.8	--	--	89.1	F	10.3	--	--	>120	F	--	>120	F	--
	PM	67.0	--	75.4	F	8.4	--	--	72.2	F	5.3	--	--	38.0	D	--	55.5	E	--

Table 3.16-5: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 2)

Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project										Cumulative Plus Project w/Improvements					
		Avg Delay (sec/veh)	LOS	Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical	Avg Delay (sec/veh)	LOS	Δ in Avg Critical
6 - US 101 NB On-Ramp and Donohoe St ^{2,3,4,5} <i>(Uncontrolled)</i>	AM	O ERSAT	--	>120	F	N/A	--	--	>120	F	N/A	--	--	29.5	C	--	28.0	C	--
	PM	O ERSAT	--	>120	F	N/A	--	--	>120	F	N/A	--	--	27.4	C	--	27.3	C	--
7 - University Ave (SR 109) and Loop Rd (Future) ^{1,4} <i>(Two-way Stop)</i>	AM	26.8	D	--	--	--	--	--	59.6	F	--	--	--	--	--	--	12.7	B	--
	PM	120	--	--	--	--	--	--	>120	F	--	--	--	--	--	--	47.1	D	--
8 - University Avenue and Purdue Avenue ^{1,4,6} <i>(Two-way Stop)</i>	AM	12.1	B	42.3	E	--	--	--	22.6	C	--	--	--	14.9	B	--	--	--	--
	PM	8.2	A	>120	F	--	--	--	48.9	E	--	--	--	25.6	C	--	--	--	--
11 - University Ave and Bay Rd ⁵	AM	43.2	D	114.9	F	--	>60	0.608	80.3	F	--	>60	0.461	21.7	D	--	51.0	D	--
	PM	50.4	D	106.5	F	--	>60	0.424	89.2	F	--	>60	0.360	54.1	D	--	53.2	D	--
14 - University Ave and Donohoe St. ⁵	AM	120	--	>120	F	5.2	--	--	>120	F	17.6	--	--	101.5	F	--	96.6	F	--
	PM	120	--	>120	F	0.0	--	--	>120	F	2.8	--	--	48.9	E	--	77.5	E	--
15 - University Ave and US 101 SB Off-Ramp ²	AM	76.5	E	>120	F	>60	--	--	>120	F	44.4	--	--	68.4	E	--	61.3	E	--
	PM	120	--	>120	F	19.5	--	--	>120	F	5.4	--	--	42.3	D	--	46.3	D	--

Table 3.16-5: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 2)

Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project										Cumulative Plus Project w/Improvements					
				Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
		Avg Delay (sec/veh)	LOS	Avg Delay (sec/veh)	LOS	Δ In Avg Delay	Δ In Avg Critical	Δ In Critical V/C	Avg Delay (sec/veh)	LOS	Δ In Avg Delay	Δ In Avg Critical	Δ In Critical V/C	Avg Delay (sec/veh)	LOS	Δ In Avg Critical	Avg Delay (sec/veh)	LOS	Δ In Avg Critical
16 - University Ave and Woodland Ave ²	AM	120	--	>120	F	39.5	--	--	>120	F	>60	--	--	91.8	F	--	83.5	F	--
	PM	120	--	>120	F	>60	--	--	>120	F	-23.1	--	--	>120	F	--	>120	F	--
17 - University Circle and Woodland Ave ²	AM	120	--	>120	F	>60	--	--	>120	F	>60	--	--	30.5	C	--	24.2	C	--
	PM	120	--	>120	F	46.6	--	--	>120	F	-3.9	--	--	>120	F	--	>120	F	--
18 - US 101 NB Off-Ramp and Donohoe St ^{2,5}	AM	120	--	>120	F	33.6	--	--	>120	F	>60	--	--	74.0	E	--	110.6	F	--
	PM	120	--	>120	F	<-60	--	--	>120	F	-25.7	--	--	56.8	E	--	84.3	F	--
19 - Cooley Ave and Donohoe St ^{2,5}	AM	120	--	>120	F	-13.3	--	--	>120	F	8.7	--	--	39.5	D	--	39.3	D	--
	PM	37.9	D	34.6	C	-3.3	--	--	35.9	D	-2.0	--	--	22.8	C	--	23.0	C	--
20 - East Bayshore Rd and Donohoe St ²	AM	120	--	>120	F	-27.0	--	--	>120	F	57.2	--	--	77.1	E	--	87.7	F	--
	PM	51.1	D	32.2	C	-7.1	--	--	34.5	C	-16.6	--	--	25.5	C	--	17.9	B	--
21 - Clarke Ave and Bay Rd ⁴ (All-way Stop)	AM	18.2	B	>120	F	--	>60	0.949	>120	F	--	>60	0.386	30.6	C	--	24.6	C	--
	PM	17.4	B	>120	F	--	>60	0.972	>120	F	--	>60	0.507	20.7	C	--	16.8	B	--
23 - Clarke Ave and Runnymede St ⁴ (All-way Stop)	AM	76.7	--	>120	F	--	>60	0.551	>120	F	--	>60	0.530	42.4	D	--	27.3	C	--
	PM	69.9	--	>120	F	--	>60	0.645	>120	F	--	>60	0.516	50.9	D	--	37.4	D	--
26 - Demeter St and Bay Rd ^{1,4} (Two-way Stop)	AM	12.5	B	>120	F	--	--	--	>120	F	--	--	--	16.7	B	--	17.4	B	--
	PM	17.9	B	>120	F	--	--	--	>120	F	--	--	--	36.3	D	--	23.6	C	--
27 - Pulgas Ave and Bay Rd ^{4,5} (All-way Stop)	AM	29.7	C	>120	F	--	>60	1.042	>120	F	--	>60	1.213	37.3	D	--	43.8	D	--
	PM	51.7	D	>120	F	--	>60	0.754	>120	F	--	>60	0.569	43.4	D	--	35.4	D	--

Table 3.16-5: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 2)

Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project										Cumulative Plus Project w/Improvements					
		Avg Delay (sec/veh)	LOS	Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical	Avg Delay (sec/veh)	LOS	Δ in Avg Critical
28 - Pulgas Ave and Weeks St ⁴ <i>(All-way Stop)</i>	AM	19.7	C	62.8	F	--	43.1	0.292	44.5	E	--	24.7	0.205	8.7	A	--	7.8	A	--
	PM	26.4	D	38.1	E	--	11.7	0.092	42.6	E	--	16.2	0.129	19.0	B	--	19.2	B	--
29 - Pulgas Ave and Runnymede St ^{4,5} <i>(All-way Stop)</i>	AM	96.9	--	>120	F	--	>60	0.332	>120	F	--	55.4	0.275	29.8	C	--	22.1	C	--
	PM	58.0	--	>120	F	--	>60	0.238	105.1	F	--	47.1	0.192	27.6	C	--	19.1	B	--
30 - Pulgas Ave and O'Connor St <i>(All-way Stop)</i>	AM	25.5	D	27.3	D	--	1.8	-0.001	29.6	D	--	4.1	0.023	16.3	B	--	16.3	B	--
	PM	33.2	D	46.3	E	--	13.1	0.149	47.2	E	--	14.1	0.144	14.9	B	--	14.9	B	--
34 - University Ave (SR 109) and Adams Dr ^{1,4} <i>(Two-way Stop)</i>	AM	120	F	>120	F	--	--	--	>120	F	--	--	--	9.5	A	--	8.6	A	--
	PM	120	F	>120	F	--	--	--	>120	F	--	--	--	40.6	D	--	29.1	C	--
35 - Clark Ave and Schembri Ln/Garden St <i>(All-way Stop)</i>	AM	26.1	D	60.0	F	--	33.9	0.236	58.6	F	--	32.5	0.229	8.8	A	--	8.9	A	--
	PM	17.9	C	14.2	B	--	-3.7	-0.108	16.2	C	--	-1.7	-0.049	5.2	A	--	5.0	A	--
39 - University Ave and 4 Corners Dwy <i>(Future Two-way Stop)</i>	AM	53.4	D	113.4	F	--	--	--	76.6	F	--	--	--	15.5	C	--	14.2	B	--
	PM	32.6	D	106.3	F	--	--	--	51.5	F	--	--	--	24.7	C	--	18.8	C	--

Table 3.16-5: Cumulative Plus Specific Plan Intersection Levels of Service (Scenario 2)

Intersection	Peak Hour	Cumulative No Project		Cumulative Plus Project										Cumulative Plus Project w/Improvements					
		Avg Delay (sec/veh)	LOS	Without Loop Road					With Loop Road					Without Loop Road			With Loop Road		
				Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Delay	Δ in Avg Critical	Δ in Critical V/C	Avg Delay (sec/veh)	LOS	Δ in Avg Critical	Avg Delay (sec/veh)	LOS	Δ in Avg Critical
40 - 4 Corners Dwy and Bay Rd <i>(Future Two-way Stop)</i>	AM	18.5	C	34.5	D	--	--	--	23.9	C	--	--	--	13.0	B	--	16.3	C	--
	PM	27.9	D	>120	F	--	--	--	>120	F	--	--	--	39.8	E	--	31.4	D	--
42 - Pulgas Ave and Emmerson St <i>(Future Two-way Stop)</i>	AM	19.7	C	47.2	E	--	--	--	65.3	F	--	--	--	7.1	A	--	6.9	A	--
	PM	13.8	B	25.2	D	--	--	--	23.1	C	--	--	--	5.2	A	--	4.8	A	--
45 - Tara Road and Bay Road ^{1,4} <i>(Two-way Stop)</i>	AM	22.4	C	>120	F	--	--	--	>120	F	--	--	--	13.5	B	--	9.6	A	--
	PM	16.9	C	>120	F	--	--	--	79.9	F	--	--	--	8.0	A	--	6.5	A	--

Source: Hexagon Transportation Consultants, Inc. Ravenswood Specific Plan Update Transportation Analysis. March 7, 2023.

Notes:

Bold indicates an adverse effect as a result of the project.

O ERSAT indicates that the result is out of software calculation limits

Δ = change

Based on East Palo Alto’s Mobility Study completed in June 2020, feasible physical improvements to roadways and/or multi-modal improvements to promote alternatives to single occupancy vehicle trips should be implemented to reduce the intersections’ deficiencies. The City has discretion, with the passage of SB 743 which mandates that vehicle delay no longer be considered an impact on the environment, whether to implement improvements to address the LOS deficiencies, and the relevant question under CEQA is whether those improvements would result in adverse physical changes to the environment (not whether LOS has degraded below the condition considered acceptable).

Table 3.16-6 below summarizes feasible improvements for the 25 intersections and existing plus project conditions (for development scenarios 1 and 2) and additional four intersections under cumulative plus project conditions. For those intersections outside of East Palo Alto which are subject to the jurisdiction of another agency, the decision whether and when to implement the identified improvements would be made by that jurisdiction. The detailed description of the improvements is included in Appendix F of this SEIR.

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
1	Willow Rd & Bayfront Expy	Y	Y	Y	Y	<ul style="list-style-type: none"> • An adaptive traffic signal coordination system, which adjusts traffic signal timing based on traffic demand at an intersection, on the Willow Road corridor shall be implemented to improve traffic flow. • Multimodal improvements: Install bicycle signals, high-visibility crosswalks and cross-bike markings, reconstruct the Willow Road (northbound) right-turn channelizing island to improve pedestrian access, removing the Bayfront Expressway (eastbound) channelizing island to provide space for shoulder-running bus lane, and implementing a right-turn overlap phase • The above improvements are a part of the Metropolitan Transportation Commission (MTC) Dumbarton Forward project and their effectiveness in addressing the project’s adverse effect on traffic operations at this intersection cannot be determined. Furthermore, implementation of the above improvements is uncertain at this time.
2	Willow Rd & Newbridge St (Menlo Park)	Y	Y	Y	Y	<ul style="list-style-type: none"> • Optimize signal timing • Modify the signal to include protected left-turn phasing on Newbridge Steet with lead/lag on the eastbound and westbound approaches. • The implementation of the above intersection modifications would not reduce the critical movement delay sufficiently to address the

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<p>intersection deficiency under project conditions both without and with the loop road. However future projects under the Specific Plan Update will make a fair share contribution toward the below multimodal improvements.</p> <ul style="list-style-type: none"> Improve this section of Willow Rd with multimodal improvements including the installation of a northbound Willow Road one-way Class IV separated bikeway between Hamilton Avenue and the US 101/Willow Road Interchange and a southbound Willow Road one-way Class IV separated bikeway between the Dumbarton Rail Corridor and the US 101/Willow Road Interchange.
3	University Ave & Bayfront Expy (Menlo Park)	Y	Y	Y	Y	<ul style="list-style-type: none"> Restriping of Bayfront Expressway to add bus only lanes. Installation of bus only lanes Implement signal timing improvements. The above improvements are a part of the Metropolitan Transportation Commission (MTC) Dumbarton Forward project and their effectiveness in addressing the project’s adverse effect on traffic operations at this intersection cannot be determined. Furthermore, implementation of the above improvements is uncertain at this time.
5	Euclid Ave & Donohoe St*	Y	Y	Y	Y	<ul style="list-style-type: none"> Signalize and restripe lane configuration on westbound Donohoe Street to accommodate one through lane and one right turn lane. With the above improvements, the intersection would operate at an acceptable level (LOS D or better) during the PM peak hour. During

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						the AM peak hour, the intersection would operate at an unacceptable LOS E with the recommended improvements but would have lower average delay than the existing LOS F conditions.
6	US 101 NB On Ramp & Donohoe St*	Y	Y	Y	Y	<ul style="list-style-type: none"> • Install new traffic signal. • US 101 northbound on ramp shall be shifted approximately 30 feet to the east to align with the proposed driveway for the University Plaza Phase II site on the north side of Donohoe Street. • Restripe the Donohoe Street westbound approach to US 101 northbound on ramp to accommodate a short left-turn pocket (approximately 60 feet in length), a shared left/through lane, and an exclusive through lane. • Widen the US 101 northbound on-ramp to two lanes • With the above improvements, the intersection would operate adequately (LOS C or better) during both peak hours.
7	University Ave & Loop Rd (future)	N/A	Y	N/A	Y	<ul style="list-style-type: none"> • Install new traffic signal • Add improvements to accommodate pedestrians and bicyclists including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. • With this improvement, the intersection would operate at an acceptable level (LOS C or better) during the AM and PM peak hours under existing plus project conditions with the planned Loop Road.
8	University Ave & Purdue Ave	N	N	Y	N	<p>Existing plus project without loop road, i.e. multi-use trail (Scenario 2)</p> <ul style="list-style-type: none"> • A new traffic signal shall be installed at this intersection.

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<ul style="list-style-type: none"> Add improvements to accommodate pedestrians and bicyclists including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. With the above improvements, this intersection would operate at an acceptable level (LOS B) during the PM peak hour under this scenario. <p>No improvements under the remaining scenarios are needed at this intersection.</p>
11	University Ave & Bay Road	Y	Y	Y	Y	<p>Existing plus project Scenarios 1 and 2, with loop road</p> <ul style="list-style-type: none"> Add a second westbound left-turn lane and second southbound left-turn lane. The second westbound left turn lane would result in two left turn lanes, one through lane, and one right turn lane in the westbound direction on Bay Road. Construction of the above turn lanes would require right-of-way acquisition from adjacent properties and roadway widening. At least two feet of additional right-of-way would be required on the east side of University Avenue. About 12 feet of additional right-of-way would be required on the north side of Bay Road. Roadway widening has the potential to make pedestrian and bicycle travel more difficult through the intersection. Therefore, appropriate pedestrian and bicycle accommodations shall be

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<p>provided at the intersection. This includes pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops.</p> <ul style="list-style-type: none"> • With the above improvements, the intersection would have a higher delay than existing conditions, but would continue to operate at an acceptable LOS D. <p>Existing plus project without loop road, Scenario 1</p> <ul style="list-style-type: none"> • Add an exclusive northbound right-turn lane plus implement the above Scenario 1 with loop road improvements on the southbound and westbound approaches. • With the above improvements, the intersection would operate at LOS D, however the delay would be higher than with the loop road. <p>Existing plus project without loop road, Scenario 2</p> <ul style="list-style-type: none"> • The improvements under the existing plus project conditions, Scenario 1 without the loop road, would partially address the deficiencies under the existing plus project without loop road, Scenario 2. • Additional improvements that would restore the intersection to an acceptable level of service are considered infeasible since it would require acquiring right-of-way from existing single-family houses on University Avenue to add a third northbound through lane. The Scenario 1 without the loop road improvements would only partially

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<p>offset the deficiency caused by buildout of the Specific Plan Update under this Scenario 2 without the loop road.</p> <p>Existing plus project, Scenarios 1 and 2, with and without the loop road</p> <ul style="list-style-type: none"> For all scenarios, modify signal phasing on Bay Road from split phase operation to a standard phase sequence with protected left turns.
14	University Ave & Donohoe St*	Y	Y	Y	Y	<ul style="list-style-type: none"> Widen westbound approach on Donohoe Street to accommodate dual left-turn lanes, one exclusive through lane, one shared through/right lane, and one exclusive right-turn lane to allow for simultaneous left-turn movements The traffic signal shall be modified to protected left turn phasing for the eastbound and westbound approaches. The above improvements would require right-of-way acquisition along the south side of Donohoe Street between University Avenue and the US 101 northbound off ramp. The changes to the westbound approach will require modifications to the eastbound approach to ensure proper lane alignment. One left turn lane and one shared through/right turn lane shall be added to the eastbound approach. New traffic signals shall be installed at the US 101 northbound on-ramp/Donohoe Street intersection and at the Euclid/Donohoe intersection.

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<ul style="list-style-type: none"> The above improvements would improve operations at the University Avenue/Donohoe Street intersection and would avoid the deficiencies caused by the Specific Plan Update at this intersection.
15	University Ave & US 101 SB Ramps*	Y	Y	Y	Y	<ul style="list-style-type: none"> Donohoe Street improvements at the Euclid Avenue, US 101 northbound on ramp, University Avenue, at the US 101 northbound off ramp, and Cooley Avenue would improve traffic flow on University Avenue and eliminate the queue spillback that extends from Donohoe Street to the US 101 southbound ramps. No additional improvements are required to be implemented to improve the deficiencies at this intersection. With the above improvements, the intersection would operate at LOS E during the AM peak hour and LOS D during the PM peak hour, which is better than under existing conditions.
16	University Ave & Woodland Ave*	Y	Y	Y	Y	<ul style="list-style-type: none"> Donohoe Street improvements at the Euclid Avenue, US 101 northbound on ramp, University Avenue, at the US 101 northbound off ramp, and Cooley Avenue would improve traffic flow on University Avenue and reduce delay at the University Avenue/Woodland intersection. Although the intersection would still operate at an unacceptable level (LOS E or F) during one or both peak hours, the average delay would be less than under existing no project conditions. No additional improvements are required to address the operational deficiencies at this intersection.

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
17	University Circle Driveway & Woodland Ave*	Y	Y	Y	Y	<ul style="list-style-type: none"> • Donohoe Street improvements at the Euclid Avenue, US 101 northbound on ramp, University Avenue, at the US 101 northbound off ramp, and Cooley Avenue would improve traffic flow on University Avenue and reduce delay at the University Circle/Woodland intersection. • The intersection would operate at an acceptable LOS C during the PM peak hour. • No additional improvements are required to address the operational deficiencies at this intersection.
18	US 101 NB Off-Ramp & Donohoe St*	Y	Y	Y	Y	<ul style="list-style-type: none"> • Widen westbound approach on Donohoe Street at the US 101 northbound off ramp to accommodate four through lanes to improve the vehicular throughput at this intersection. • This improvement would require median modifications and narrowing the eastbound Donohoe Street approach to Cooley Avenue to include two through lanes and a full length left turn lane. • Traffic signals shall be coordinated with adjacent traffic signals on Donohoe Street. • With the proposed improvements, the intersection of the US 101 northbound off ramp and Donohoe Street would operate at an acceptable LOS D or better during both peak hours.
20	East Bayshore Rd & Donohoe St*	Y	Y	Y	Y	<ul style="list-style-type: none"> • Donohoe Street improvements at the Euclid Avenue, US 101 northbound on ramp, University Avenue, at the US 101 northbound off ramp, and Cooley Avenue and result in the East

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<p>Bayshore/Donohoe intersection operating at an acceptable LOS D during both peak hours without the loop road.</p> <ul style="list-style-type: none"> • With the loop road, the intersection would continue to operate at an unacceptable LOS E during the AM peak hour, however the average delay would be less than that under existing conditions. • No additional improvements are required to address the operational deficiencies that would result from the Specific Plan Update effect at this intersection.
21	Clarke Ave & Bay Rd	Y	Y	Y	Y	<ul style="list-style-type: none"> • A new traffic signal shall be installed at this intersection. • Pedestrian and bicycle accommodation shall be added including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. • With the above improvements, this intersection would operate at an acceptable level (LOS C or better) during the AM and PM peak hours under existing plus project conditions both without and with the loop road.
23	Clarke Ave & Runnymede St	Y	Y	Y	Y	<ul style="list-style-type: none"> • A new traffic signal shall be installed at this intersection. • Pedestrian and bicycle accommodation shall be added including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. • With the above improvements, this intersection would operate at an acceptable level (LOS C or better) during the AM and PM peak hours

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						under existing plus project conditions both without and with the loop road.
26	Demeter St & Bay Rd	Y	Y	Y	Y	<ul style="list-style-type: none"> • A new traffic signal shall be installed at this intersection. • Pedestrian and bicycle accommodation shall be added including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. • With the above improvements, this intersection would operate at an acceptable level (LOS C or better) during the AM and PM peak hours under existing plus project conditions both without and with the loop road.
27	Pulgas Ave & Bay Rd	Y	Y	Y	Y	<p>Existing plus project conditions with the loop road (Scenario 1)</p> <ul style="list-style-type: none"> • A new traffic signal shall be installed at this intersection. • Pedestrian and bicycle accommodation shall be added including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. • For the intersection to operate acceptably with the traffic signal, the northbound approach on Pulgas Avenue shall be restriped to include one left-turn lane and one shared left/through/right-turn lane. • Removal of on-street parking on Pulgas Avenue would be required for the above improvement. • With the above improvements, this intersection would operate at an acceptable level (LOS D or better) during the AM and PM peak hours

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<p>under existing plus project conditions (Scenario 1) with the loop road.</p> <p>Existing plus project conditions with the loop road (Scenario 2)</p> <ul style="list-style-type: none"> • A traffic signal shall be installed at this intersection. <p>For a traffic signal to operate acceptably under this scenario, the Scenario 1, with loop road improvements shall be combined with widening of the westbound approach to include a left-turn lane and shared through/right-turn lane. Additional right of way would be required for the additional turn lane at the westbound approach</p> <ul style="list-style-type: none"> • With the above improvements, this intersection would operate at an acceptable level (LOS D or better) during the AM and PM peak hours under existing plus project conditions (Scenario 1) with the loop road. <p>Existing plus project conditions without the loop road (Scenarios 1 and 2)</p> <ul style="list-style-type: none"> • The above traffic signal and pedestrian/bicycle improvements shall be added to this intersection (without the loop road). • For the intersection to operate acceptably with the traffic signal, the northbound approach on Pulgas Avenue shall be restriped to include one left-turn lane and one shared left/through/right-turn lane and the westbound approach shall be widened to include a left-turn lane and a shared through/right-turn lane.

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<ul style="list-style-type: none"> An additional right-of-way (on the Ravenswood Health Center property) would be required for the additional turn lane on the westbound approach. With the above improvements, this intersection would operate at an acceptable level (LOS D or better) during the AM and PM peak hours under existing plus project conditions without the loop road. <p>Existing plus project conditions without the loop road (Scenarios 1) and with the loop road (Scenario 2)</p> <ul style="list-style-type: none"> Alternatively, a two-lane roundabout with a shared left-through lane and a shared through-right lane at all approaches would be required for the intersection to operate acceptably. To accommodate the roundabout, additional right-of-way would be required at the southeast and northwest corners of the intersection. Additional design work would be needed to determine if a roundabout could fit without affecting recent new projects on the southeast (EPA Center Arts) and northwest (Ravenswood Health Center) corners.
28	Pulgas Ave & Weeks St	N	N	Y	N	<p>Existing plus project, Scenario 2, without the loop road</p> <ul style="list-style-type: none"> A new traffic signal shall be installed at this intersection. Pedestrian and bicycle accommodations shall be added including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops.

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<ul style="list-style-type: none"> With the above improvements, this intersection would operate at an acceptable level (LOS B or better) during the AM and PM peak hours under existing plus project conditions, Scenario 2, without the loop road. <p>Existing plus project, Scenario 1, with and without loop road and Scenario 2 (with the loop road)</p> <ul style="list-style-type: none"> No improvements would be required under these scenarios.
29	Pulgas Ave & Runnymede St	Y	Y	Y	Y	<p>Existing plus project conditions, Scenario 1 (with and without the loop road) and Scenario 2 (with the loop road)</p> <ul style="list-style-type: none"> A new traffic signal shall be installed at this intersection. Pedestrian and bicycle accommodations shall be added including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. With the above improvements, this intersection would operate at an acceptable level (LOS D or better) during the AM and PM peak hours under existing plus project conditions Scenario 1 without and with the loop road and LOS C or better during the peak hours for Scenario 2, with the loop road. <p>Existing plus project conditions, Scenario 2 (without the loop road)</p> <ul style="list-style-type: none"> In addition to the improvements for the above scenarios, the northbound approach shall be restriped to include one northbound left-turn lane and one northbound shared through/right-turn lane.

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<p>There is sufficient right of way available to accommodate the additional turn lane, however, the improvement would require removal of on-street parking spaces on the south leg of Pulgas Avenue.</p> <ul style="list-style-type: none"> With the above improvements, this intersection would operate at LOS C or better under existing plus project conditions, Scenario 2, without the loop road.
34	University Ave & Adams Dr	Y	Y	Y	Y	<ul style="list-style-type: none"> A new traffic signal shall be installed at this intersection. Pedestrian and bicycle accommodations shall be added including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. With the above improvements, this intersection would operate at an acceptable level (LOS C or better) during the AM and PM peak hours under existing plus project conditions without and with the loop road.
39	University Ave & Four Corners Driveway (future)	Y	Y	Y	Y	<ul style="list-style-type: none"> The driveway shall be restricted to right turns only in and out of the Four Corners property. The Four Corners project applicant will be responsible for constructing these turn restrictions. With the above driveway restrictions, this intersection would operate at an acceptable level (LOS D or better) during the AM and PM peak hours under existing plus project conditions both without and with the loop road.

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
40	Four Corners Driveway & Bay Rd (future)	Y	Y	Y	Y	<p>All Scenarios</p> <ul style="list-style-type: none"> The driveway shall be restricted to right turns only in and out of the Four Corners property. The Four Corners project applicant will be responsible for constructing these turn restrictions. There are no other feasible improvements to address operational deficiencies, at this intersection, resulting from buildout of the Specific Plan Update. <p>Existing plus Project Conditions Scenario 1 (with and without the loop road)</p> <ul style="list-style-type: none"> With the above driveway restrictions, this intersection would operate at an acceptable level (LOS D or better) during the PM peak hour under existing plus project conditions without the loop road. With the loop road, this intersection would continue to operate at an unacceptable LOS E during the PM peak hour. <p>Existing plus project conditions Scenario 2 (with and without the loop road)</p> <ul style="list-style-type: none"> The above right-turn only restrictions would address the operational deficiencies under existing plus project (Scenario 2.) conditions during the AM peak hour both without and with the loop road. During the PM peak hour, the intersection would continue to operate at an unacceptable LOS E both without and with the loop road.

Table 3.16-6: Summary of Affected Intersections – Existing Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
42	Pulgas Ave & Emmerson St (future)	N	Y	Y	Y	<ul style="list-style-type: none"> • With the loop road for Scenarios 1 and 2 and without the loop road for Scenario 2, a new east-west roadway (Emmerson Street) is planned to extend from Demeter Street to Tara Road (north of Bay Road). A single-lane roundabout shall be installed at the future Emmerson Street and Pulgas Avenue intersection. A roundabout would require the adjacent properties (currently industrial and vacant parcels) to dedicate right-of-way. With the above improvement, this intersection would operate at LOS A. • No improvements are necessary under Scenario 1, without loop road.
45	Tara Rd and Bay Rd	Y	Y	Y	Y	<ul style="list-style-type: none"> • A single-lane roundabout shall be installed at this intersection. A roundabout would require the adjacent industrial properties to dedicate right-of-way as a part of redevelopment. With the above improvement, this intersection would operate at LOS A.

Notes: NB = northbound; WB = westbound; SB = southbound; EB = eastbound; L/T/R = left/through/right
 *These intersections have been analyzed using a simulation model due to their proximity to each other.
 Improvements proposed along Donohoe Street and University Avenue would affect the delay at all these intersections.

The intersection improvements under existing plus Specific Plan conditions, scenarios 1 and 2 shall also be implemented under cumulative plus Specific Plan conditions (scenarios 1 and 2). Improvements for intersections 7, 8, 21, 27, 28, and 42 would be the same for cumulative plus Specific Plan conditions (as they would be for existing plus Specific Plan conditions) except the scenarios they would be applicable to differ or additional improvements would be required. Refer to Table 3.16-7. Improvements at four new intersections (Intersections 4, 19, 30, and 35) would be added under cumulative plus Specific Plan conditions (refer to Table 3.16-8).

Table 3.16-7: Summary of Improvements for Affected Intersections – Existing and Cumulative Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
7	University Ave & Loop Rd (future)	N/A	Y	N/A	Y	<p>Cumulative plus project conditions with loop road (Scenario 1)</p> <ul style="list-style-type: none"> Installation of a new traffic signal and pedestrian/bicyclists accommodations would be the same as existing plus project conditions for both scenarios. <p>Cumulative plus project conditions with loop road (Scenario 2)</p> <ul style="list-style-type: none"> In addition to installing new traffic signal and pedestrian/bicyclists accommodations as described under the existing plus project conditions (see Table 3.16-6), the westbound approach at this intersection shall be constructed with two lanes (one left turn lane and one right turn lane). With the above improvements, this intersection would operate at an acceptable level (LOS D or better) during the AM and PM peak hours.
8	University Ave & Purdue Ave	Y	N	Y	N	<p>Cumulative plus project without loop road (Scenarios 1 and Scenario 2)</p> <ul style="list-style-type: none"> A new traffic signal shall be installed at this intersection as well as pedestrian and bicyclists accommodations described under existing plus project condition, scenario 2, without the loop road. With the above improvements, this intersection would operate at an acceptable level (LOS C or better) during both peak hours under this scenario.

Table 3.16-7: Summary of Improvements for Affected Intersections – Existing and Cumulative Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<p>Cumulative plus project with loop road (Scenarios 1 and Scenario 2)</p> <ul style="list-style-type: none"> Similar to existing plus project conditions with the loop road, no improvements are required under the cumulative plus project with loop road scenarios.
21	Clarke Ave & Bay Rd	Y	Y	Y	Y	<p>Cumulative plus project conditions, Scenario 1 (with the loop road)</p> <ul style="list-style-type: none"> A new traffic signal shall be installed at this intersection as well as pedestrian and bicycle accommodations described under existing plus project conditions (all scenarios), is required under this scenario. <p>Cumulative plus project conditions, Scenario 1 (without the loop road)</p> <ul style="list-style-type: none"> In addition to the above improvements, a southbound left-turn lane shall be added, which would require the removal of a landscaped median. With the above improvements, this intersection would operate at an acceptable level (LOS D or better) during the AM and PM peak hours under existing plus project conditions both without and with the loop road.
27	Pulgas Ave & Bay Rd	Y	Y	Y	Y	<p>Cumulative plus project conditions with the loop road (Scenarios 1 and 2)</p> <ul style="list-style-type: none"> This intersection could operate at an acceptable level under traffic signal control. The westbound approach shall need to be widened to include a westbound left-turn lane and a shared westbound through/right

Table 3.16-7: Summary of Improvements for Affected Intersections – Existing and Cumulative Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<p>turn lane. Also, the northbound approach shall be restriped to one northbound left-turn lane and one northbound shared left/through/right-turn lane.</p> <ul style="list-style-type: none"> • Additional right-of-way would be required for the additional turn lane at the westbound approach. On-street parking would need to be removed on the south leg to accommodate the improvement on the northbound Pulgas Avenue approach. • With the above improvements, this intersection would operate at an acceptable level (LOS D) during the AM and PM peak hours under cumulative plus project conditions with the loop road. <p>Cumulative plus project conditions without the loop road (Scenarios 1 and 2)</p> <ul style="list-style-type: none"> • The improvements under existing plus project conditions without the loop road (Scenarios 1) will address the deficiencies at this intersection under the above scenarios. • With the above improvements, this intersection would operate at an acceptable level (LOS D or better) during the AM and PM peak hours under existing plus project conditions without the loop road.

Table 3.16-7: Summary of Improvements for Affected Intersections – Existing and Cumulative Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<p>Cumulative plus project conditions without the loop road (Scenarios 1) and with the loop road (Scenario 2)</p> <ul style="list-style-type: none"> Alternatively, a two-lane roundabout with a shared left-through lane and a shared through-right lane at all approaches would be required for the intersection to operate acceptably (refer to existing plus project conditions improvements at this intersection in Table 3.16-6).
28	Pulgas Ave & Weeks St	Y	Y	Y	Y	<p>Cumulative plus project conditions (all scenarios)</p> <ul style="list-style-type: none"> The new traffic signal and pedestrian and bicyclists accommodations described under existing plus project conditions without the loop road (Scenario 2) will address the deficiencies at this intersection. A new traffic signal shall be installed at this intersection under all cumulative plus project conditions (all scenarios). With the above improvements, this intersection would operate at an acceptable level (LOS B or better) during the AM and PM peak hours under cumulative plus project conditions (all scenarios).

Table 3.16-7: Summary of Improvements for Affected Intersections – Existing and Cumulative Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
42	Pulgas Ave & Emmerson St (future)	N	N	Y	Y	<p>Cumulative plus project conditions (Scenario 1 and 2 with the loop road, and Scenario 2 without the loop road)</p> <ul style="list-style-type: none"> The single-lane roundabout improvement described under existing plus project conditions for Scenarios 1 and 2 with the loop road, and Scenario 2, without the loop road will address the deficiencies at this intersection under cumulative plus project conditions (Scenario 2). No improvements are necessary under cumulative plus project conditions, Scenario 1, with or without loop road.
<p>Notes: NB = northbound; WB = westbound; SB = southbound; EB = eastbound; L/T/R = left/through/right *These intersections have been analyzed using a simulation model due to their proximity to each other. Improvements proposed along Donohoe Street and University Avenue would affect the delay at all these intersections.</p>						

Table 3.16-8: Summary of Improvements for Affected Intersections – Cumulative Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
4	Newbridge Street and Bay Road/Ralmar Ave.	N	N	Y	Y	<p>Cumulative plus project conditions with and without loop road (Scenario 2)</p> <ul style="list-style-type: none"> A new traffic signal shall be installed at this intersection. Pedestrian and bicycle accommodations shall be added including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. With the above improvements, this intersection would operate at an acceptable level (LOS B or better) during the AM and PM peak hours under cumulative plus project conditions (Scenario 2) without and with the loop road. <p>Cumulative plus project conditions with and without the loop road (Scenario 1)</p> <ul style="list-style-type: none"> No improvements are required under cumulative plus project conditions, Scenario 1.
19	Cooley Ave. and Donohoe Street	Y	N	Y	N	<p>Cumulative plus project with loop road (Scenarios 1 and Scenario 2)</p> <ul style="list-style-type: none"> The eastbound approach on Donohoe Street at Cooley Avenue shall be restriped to include one full length left-turn lane from the upstream intersection and two through lanes. In addition, the traffic signals shall be coordinated with adjacent traffic signals on Donohoe Street. With the above improvements and improvements at Euclid Avenue, US 101 northbound on ramp, University Avenue, and US 101 northbound off ramp (described under existing plus project

Table 3.16-8: Summary of Improvements for Affected Intersections – Cumulative Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	
						<p>conditions), this intersection would operate at an acceptable level (LOS D or better) during both peak hours under these scenarios.</p> <p>Cumulative plus project without the loop road (Scenarios 1 and Scenario 2)</p> <ul style="list-style-type: none"> No improvements are required under the above scenarios.
30	Pulgas Ave. and O'Connor St.	Y	Y	Y	Y	<ul style="list-style-type: none"> A new traffic signal shall be installed at this intersection. Pedestrian and bicycle accommodations shall be added including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. With the above improvements, this intersection would operate at an acceptable level (LOS B or better) during the AM and PM peak hours under all cumulative plus project conditions scenarios.
35	Clarke Ave. and Schembri Lane/Garden St.	N	N	Y	Y	<p>Cumulative plus project with and without the loop road (Scenario 2)</p> <ul style="list-style-type: none"> A new traffic signal shall be installed at this intersection. Pedestrian and bicycle accommodations shall be added including pedestrian countdown timers, ADA compliant curbs, and bicycle detection loops. With the above improvements, this intersection would operate at an acceptable level (LOS A) during the AM and PM peak hours under cumulative plus project conditions (Scenario 2). <p>Cumulative plus project conditions with and without the loop road (Scenario 1)</p> <ul style="list-style-type: none"> No improvements at this intersection are required under the above scenario.

Notes: NB = northbound; WB = westbound; SB = southbound; EB = eastbound; L/T/R = left/through/right

Table 3.16-8: Summary of Improvements for Affected Intersections – Cumulative Plus Specific Plan Conditions

No.	Intersection	Requires Improvement (Y/N)				Improvements
		Scenario #1		Scenario #2		
		Without Loop Road	With Loop Road	Without Loop Road	With Loop Road	

*These intersections have been analyzed using a simulation model due to their proximity to each other. Improvements proposed along Donohoe Street and University Avenue would affect the delay at all these intersections.

Future projects under the Specific Plan Update shall make fair share contributions towards these identified improvements, as per the development impact fees established by the Nexus Study. The installation of new traffic signals, and associated improvements to accommodate pedestrian and bicycles such as pedestrian countdown times, ADA compliant ramps and bicycle detection loops, would be implemented at 14 of the 28 intersections, occur within an existing right-of-way, and would not result in significant environmental impacts (e.g., such as removal of a sidewalk or a substantial number of trees). Improvements requiring adjustments to signal timing are related to LOS and would not result in a significant environmental impact.

The restriping of roadways to accommodate through lanes and to add turn lanes would not result in ground disturbance or significant environmental impacts. At Intersection #11, University Avenue and Bay Road, the addition of a second westbound left turn lane and south southbound left turn lane would require right-of-way acquisition of Bay Road and University Avenue. The roadway widening at this intersection has the potential to affect pedestrian and bicycle travel. However, appropriate pedestrian and bicycle accommodations will be provided with the improvements to offset the impacts. Intersection #14, University Avenue and Donohoe Street improvements would require right-of-way acquisition along the south side of Donohoe Street, between the US 101 northbound on-ramp and University Avenue. The acquisition and improvements could require the removal of several trees on an undeveloped parcel. Compliance with the City's Tree Regulations (Municipal Code Chapter 18, Section 18.28.040) would be required, resulting in a less than significant impact to biological resources (trees). Intersection #18 US 101 Off-Ramp and Donohoe Street improvements to widen the westbound approach on Donohoe Street would require non-landscaped median modifications which would not result in a significant environmental impact.

An additional turn lane at the westbound approach of Intersection #27 Pulgas Avenue and Bay Road would require right of way acquisition at the northwest corner (adjacent to the Ravenswood Health Center) and the alternative roundabout would require right of way acquisition at the northwest and southeast (adjacent to the EPA Center of Arts) corners. Additional design work would be required to determine if a roundabout could fit without affecting the adjacent developments. The Ravenswood Health Center and EPA Center of Arts include sensitive receptors. Impacts such as construction-related TACs and noise would need to be assessed at the time the design was determined and the details of construction methods and duration were known. With the implementation of mitigation measures presented throughout this EIR related to avoiding and minimizing construction impacts, e.g. air quality, noise, vibration, etc., on nearby sensitive receptors, the impacts would be reduced to less than significant.

Separate environmental review would be required for these improvements when designed and proposed. Based on preliminary review of the improvements described in Tables 3.16-2 through 3.16-8, conformance with existing regulations and General Plan policies (including those pertaining to biological resources, water quality, and the discovery of unknown cultural resources) would be expected to reduce construction-related impacts to less than significant levels.

In addition, the results of the TA showed buildout of the Specific Plan Update would result in operational deficiencies at the following 47 freeway segments:

Existing Plus Specific Plan Conditions (Scenarios 1 and 2, with the loop road or multi-use trail, which has no effect on freeway volumes)

Mixed-Flow Freeway Segments

- US 101, northbound from Santa Clara County Line to Whipple Avenue (AM and PM peak hours)
- US 101, northbound from Whipple Avenue to SR 92 (PM peak hour)
- US 101, northbound from SR 92 to Peninsula Avenue (PM peak hour)
- US 101, southbound from Peninsula Avenue to SR 92 (AM peak hour)
- US 101, southbound from SR 92 to Whipple Avenue (AM peak hour)
- US 101, southbound from Whipple Ave. to Santa Clara County Line (both peak hours without loop road, AM peak hour only with loop road)
- SR 84, eastbound at Dumbarton Bridge (AM and PM peak hours)
- SR 84, westbound at Dumbarton Bridge (AM and PM peak hours)
- US 101, northbound from N. Mathilda Avenue to SR 237 (AM peak hour)
- US 101, northbound from SR 237 to Moffett Boulevard (AM and PM peak hour)
- US 101, northbound from Moffett Boulevard to SR 85 (AM and PM peak hour)
- US 101, northbound from SR 85 to N. Shoreline Boulevard (AM peak hour)
- US 101, northbound from N. Shoreline Blvd. to Rengstorff Ave. (AM and PM peak hours)
- US 101, northbound from Rengstorff Ave. to San Antonio Ave. (AM and PM peak hours)
- US 101, northbound from San Antonio Ave. to Oregon Expressway (AM and PM peak hours)
- US 101, northbound from Oregon Expressway to Embarcadero Rd. (AM and PM peak hours)
- US 101, southbound from Embarcadero Road to Oregon Expressway (PM peak hour)
- US 101, southbound from Oregon Expressway to San Antonio Road (PM peak hour)
- US 101, southbound from San Antonio Road to Rengstorff Avenue (PM peak hour)
- US 101, southbound from Rengstorff Avenue to N. Shoreline Boulevard (PM peak hour)
- US 101, southbound from N. Shoreline Boulevard to SR 85 (PM peak hour)
- US 101, southbound from SR 85 to Moffett Boulevard (PM peak hour)
- US 101, southbound from Moffett Boulevard to SR 237 (PM peak hour)
- US 101, southbound from SR 237 to N. Mathilda Avenue (PM peak hour)
- SR 85, southbound from US 101 to Central Expressway (PM peak hour)
- SR 85, southbound from Central Expressway to SR 237 (PM peak hour)
- SR 85, southbound from SR 237 to El Camino Real (PM peak hour)

HOV Freeway Segments

- US 101, northbound from San Antonio Avenue to Oregon Expressway (PM peak hour, only without loop road)
- US 101, northbound from Oregon Expressway to Embarcadero Road (AM and PM peak hours)

Additional Freeway Segments under Cumulative Plus Specific Plan Conditions (Scenarios 1 and 2)

Mixed-Flow Freeway Segments

- US 101 northbound from Santa Clara County Line to Whipple Avenue (PM peak hour)
- US 101 southbound from Whipple Avenue to Santa Clara County Line (AM peak hour)
- SR 84, eastbound at Dumbarton Bridge (PM peak hour)
- SR 84, westbound at Dumbarton Bridge (AM peak hour)
- US 101, northbound from N. Shoreline Boulevard to Rengstorff Avenue (AM peak hour, without loop)
- SR 85 northbound from Central Expressway to US 101 (AM peak hour)
- US 101 southbound from Oregon Expressway to San Antonio Avenue (PM peak hour)
- US 101 southbound from San Antonio Avenue to Rengstorff Avenue (PM peak hour)
- US 101 southbound Rengstorff Avenue to N. Shoreline Boulevard (PM peak hour)
- SR 85 southbound from US 101 to Central Expressway (PM peak hour)
- SR 85 southbound from Central Expressway to SR 237 (PM peak hour)

HOV Freeway Segments

- US 101 northbound from Santa Clara County Line to Whipple Avenue (PM peak hour)
- US 101 southbound from SR 92 to Whipple Avenue (AM peak hour)
- US 101 southbound from Whipple Avenue to Santa Clara County Line (AM peak hour)
- SR 85, northbound from El Camino Real to SR 237 (AM peak hour)
- SR 85, northbound from SR 237 to Central Expressway (AM peak hour)
- SR 85, northbound from Central Expressway to US 101 (AM peak hour)
- SR 85, southbound from US 101 to Central Expressway (PM peak hour)

To address freeway congestion, the VTA's Valley Transportation Plan (VTP) 2040 includes freeway express lane projects along US 101 between Cochrane Road and Whipple Avenue, and along all of SR 85. On all identified freeway segments, the existing high occupancy vehicle (HOV) lanes would be converted to express lanes. On US 101, a second express lane would be implemented in each direction for a total of two express lanes. Similarly, C/CAG's Countywide Transportation Plan identifies a highway improvement project to accommodate an HOV lane or express lane on US 101 from Whipple Avenue to I-380. The Phase 3 portion of the Silicon Valley Express Lane Project, which extends along US 101 from SR 237 to San Mateo County and on SR 85 from SR 237/Grant Road to US 101, and the Phase 1 portion of the San Mateo US 101 Express Lane Project, which extends from Santa Clara County to Whipple Avenue, was completed in February 2022. The Phase 5 portion of the Silicon Valley Express Lanes Project, which extends along US 101 from SR 237 to I 880, is expected to be completed in 2025. Separate environmental review has been completed for these improvements by the public agencies responsible for the design and implementation.

Future projects under the Specific Plan Update shall make a fair share contribution towards any identified improvements. Express lane projects would not resolve congestion and LOS F on the affected freeway segments; however, they would improve freeway traffic flow. Additional freeway

improvements such as the addition of mixed-flow lanes are generally not feasible due to right of way constraints and secondary impacts associated with induced travel.

Based on the above discussion, the Specific Plan Update is consistent with General Plan Policies, City's Mobility Study, and CMP Guidelines. The environmental impacts from roadway improvements would be evaluated under supplemental environmental review at the time the design and construction details were developed; however, based on preliminary environmental using available information, applicable mitigation measures and policies, the impacts would be reduced to a less than significant level.

(Less than Significant Impact)

-
- b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?
-

The 2013 Specific Plan EIR evaluated the Specific Plan's transportation impacts using level of service/congestion/delay as the CEQA threshold. As of December 2018, the CEQA Guidelines, based on SB 743, were amended and state that vehicle miles traveled (VMT) is the appropriate measure of transportation impacts and a project's effects on automobile delay shall not constitute a significant environmental impact. Since the 2013 Specific Plan EIR was prepared prior to state requiring VMT to be included as the CEQA threshold, the 2013 EIR did not analyze VMT impacts.

CEQA Guidelines Section 15064.3, subdivision (b) describes the criteria for analyzing transportation impacts using a VMT metric. The City of East Palo Alto adopted a VMT policy on July 1, 2020. Per the City's VMT policy, the VMT impact threshold for residential developments is equal to the existing citywide average home-based VMT per resident and the VMT impact threshold for office and retail developments is 15 percent below the existing citywide average home-based work trip VMT per employee. Using the East Palo Alto Travel Demand Model (EPA Model), the citywide average home-based VMT is 11.68 per resident and the citywide average home-based work trip is 19.27 per employee. Therefore, the VMT impact threshold for residential development is equal to 11.68. The VMT impact threshold for office, R&D, industrial, and civic developments (all non-residential developments) is equal to 16.38, 15 percent below citywide average of 19.27. Therefore, the VMT impact threshold for the non-residential uses equal to 16.38 VMT per employee.

The loop road would have a negligible effect on VMT/capita and VMT/job given the traffic volumes on this service road would be negligible. Therefore, to be consistent with the roadway network under existing conditions, the VMT under existing plus project conditions reflects the without loop road scenario. Also, for consistency with the roadway network under cumulative no project conditions, the VMT reported under cumulative plus project conditions reflects the with Loop Road scenario. The results of the VMT analysis under the Specific Plan buildout Scenario #1 and Scenario #2 are shown in Table 3.16-9.

Table 3.16-9: VMT Results

	Existing	Significance Threshold ⁶	Existing Plus Project (without Loop Road) ⁷		Cumulative No Project (includes 2013 Specific Plan with Loop Road) ⁸	Cumulative Plus Project (with Loop Road) ⁸	
			Scenario #1	Scenario #2		Scenario #1	Scenario #2
Residential VMT ¹	377,064		45,148	52,704	30,394	43,698	50,148
Households	8,107		1,350	1,600	868 ^{1a}	1,350	1,600
Total Population	32,278		4,519	5,352	2,894	4,519	5,352
Residential VMT per Capita before TDM ²	11.68		9.99	9.85	10.50	9.67	9.37
Residential VMT per Capita after TDM⁵	N/A	11.68	6.69	6.74	7.04	6.72	6.70
Employment VMT ³	89,158		151,570	179,563	87,849	147,762	166,009
Number of Jobs	4,626		9,914	11,609	5,366	9,914	11,609
Employment VMT per Job before TDM ⁴	19.27		15.29	15.47	16.37	14.40	14.30
Employment VMT per Job after TDM⁵	N/A	16.38	10.60	10.82	10.35	10.34	10.39

Notes: ¹ Residential VMT determined from the EPA Model. Residential VMT = Home-Based Trip Productions x Distance
^{1a} The traffic analysis assumed 868 units for the 2013 Specific Plan under the cumulative no project. This provided a slight over estimate of VMT as the number of residential units under the 2013 Plan is 835 units, which would result in 2,781 residents . The VMT per capita would be 10.90 (without the TDM reduction) and 7.3 VMT per capita with the TDM reduction
² Residential VMT per Capita = Residential VMT / Population
³ Employment VMT determined from the EPA Model. Employment VMT = Home-Based Work Trip Attractions x Distance
⁴ Employment VMT per Job = Employment VMT / Jobs
⁵ The reduction in VMT that may be achieved by satisfying the City’s TDM requirement was estimated based on a comparison of the vehicle trips per person estimated by the model without TDM compared to the estimated vehicle trips per person with a 40 percent trip reduction below baseline conditions. The TDM reduction in this table is based on a 30 percent reduction in VMT which provides a conservative estimate for VMT per capita and VMT per employee.
⁶ The VMT impact significance threshold is equal to the existing citywide average home-based VMT per resident for residential developments and 15 percent below the existing citywide average home-based work trip VMT per employee for office and other employment developments.
⁷ The Loop Road is expected to have a negligible effect on VMT/capita and VMT/job. Thus, for simplicity and for consistency with the roadway network under existing conditions, the VMT reported under existing plus Specific Plan conditions reflects the without Loop Road scenario given this option results in lower traffic volumes.
⁸ The Loop Road is expected to have a negligible effect on VMT/capita and VMT/job. Thus, for simplicity and for consistency with the roadway network under cumulative no project conditions, the VMT reported under cumulative plus project conditions reflects the with Loop Road scenario.

Table 3.16-9: VMT Results							
	Existing	Significance Threshold ⁶	Existing Plus Project (without Loop Road) ⁷		Cumulative No Project (includes 2013 Specific Plan with Loop Road) ⁸	Cumulative Plus Project (with Loop Road) ⁸	
			Scenario #1	Scenario #2		Scenario #1	Scenario #2
Personal Communications. Email: van den Hout, At. Hexagon Transportation Consultants. Re: Ravenswood Specific Plan Update – VMT for 2013 Adopted Plan. May 24, 2024. Under the Cumulative plus project, scenario the average trip length is shorter because there are more job opportunities nearby, and, because of improved transit service, the future residents/employees of the Specific Plan Update would experience higher transit mode shares.							

(Less than Significant Impact)

- c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The 2013 Specific Plan EIR does not include an analysis of the Specific Plan’s impacts related to geometric design features or incompatible uses.

The Specific Plan Update does not include specific design features for individual development projects. Vehicular access to and from the plan area would be provided via Embarcadero Road, University Avenue, Willow Road, Demeter Street, Pulgas Avenue, Bay Road, and Clarke Road. All driveways proposed under the Specific Plan would be required to comply with the City’s minimum driveway width and would not result in a hazardous design feature. In addition, future projects under the Specific Plan Update would be required to implement the Chapter 8 Street Design Standards of the Specific Plan Update to reduce hazards due to geometric design. The street design standards include standards for the widths of streets, bicycle, and pedestrian facilities in the Specific Plan area.

As discussed in Section 3.16-3, conditions of approval/improvements have been identified for intersections with adverse effects. These improvements include pedestrian countdown timers, Americans with Disabilities Act (ADA) compliant curbs, bicycle detection loops, lane restriping, street widening, etc. With implementation of Specific Plan Update Street Design Standards and conditions of approval requiring improvements, build out of the Specific Plan Update would not substantially increase hazards due to geometric design features on-site and would not introduce incompatible uses.

(Less than Significant Impact)

d) Would the project result in inadequate emergency access?

The 2013 Specific Plan EIR concluded that compliance with 2013 Specific Plan Policy LU-8.3 which ensures that Menlo Park Fire Protection District (MPFPD) reviews construction plans for roadway modifications, and establishes, if needed, temporary emergency routes to be used during construction of the project. During design review, the MPFPD would ensure the roads and driveways are established and meet all applicable requirements for emergency access. It was concluded that with the implementation of the above policy, buildout of the 2013 Specific Plan would not result in inadequate emergency access.

Emergency vehicles would access the individual developments from the streets within and surrounding the Specific Plan area and all streets would be designed to accommodate emergency vehicles. The Specific Plan Update Scenarios 1 and 2, with the loop road, would provide additional emergency access to properties along the eastern end of the Specific Plan area. During the environmental review process of future development, site plans shall be reviewed by the Menlo Park Fire Protection District for compliance with the CBC, Fire Code, Emergency Operations Plan and other applicable codes/plans, so that emergency access and safety would not be compromised. Any design features required to reduce or avoid such impacts due to inadequate emergency access would be identified during the site-specific environmental review.

(Less than Significant Impact)

3.16.2.2 *Cumulative Impacts*

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

The cumulative effects in the 2013 Specific Plan EIR were evaluated using LOS as a threshold; as discussed under Impact TRN-2, LOS is no longer a CEQA threshold.

Consistency with Circulation System Programs, Plans, Ordinances, or Policies

The geographic area for consistency with local programs, plans, ordinances, or policies is citywide. As discussed under Impact TRN-1, implementation of the Specific Plan Update would be consistent with and build upon the City's General Plan policies and City of East Palo Alto Bicycle Transportation Plan, by supporting multimodal options and encouraging street designs that promote safety, connectivity, and bicycle/pedestrian permeability. Therefore, buildout of the Specific Plan Update would comply with existing plans and policies, and would not contribute to a cumulative impact.

(Less than Significant Cumulative Impact)

VMT

The geographic area for cumulative impacts to transportation is the City of East Palo Alto. All cumulative projects in the City would be required to comply with City's VMT policy. Under cumulative plus Specific Plan conditions, the VMT impact significance threshold for office and retail developments would not be exceeded under Scenario #1 or Scenario #2 as shown in Table 3.16-9 As mentioned previously, the City's TDM Ordinance requires new developments to reduce average daily vehicle trips 40 percent below ITE baseline conditions. With a 40 percent reduction in daily trips, it is estimated that the VMT per resident would range from 6.72 under Scenario #1 and 6.70 under Scenario #2 and the VMT per employee would range from 10.34 under Scenario #1 and 10.39 under Scenario #2. Therefore, the Specific Plan update would not result in a cumulatively considerable contribution to a significant cumulative VMT impact. **(Less than Significant Cumulative Impact)**

Design Hazards, Incompatible Uses, and Emergency Access

The geographic area for cumulative design hazards, incompatible uses, and emergency access is the general vicinity near the Specific Plan area. Future development projects (inside or outside the Plan area boundary) would be subject to the City's standard development review process to ensure design standards are met and there are no design hazards, no incompatible uses, and adequate emergency access. The lands located west of the Specific Plan area, which fall under the jurisdiction of the City of Menlo Park, would be subject to a similar development review process to prevent design hazards, incompatible uses, and provide adequate emergency access. Therefore, cumulative projects (including the Specific Plan) would not result in a significant cumulative impact due to design hazards, incompatible uses, or emergency access.

(Less than Significant Cumulative Impact)

3.17 Tribal Cultural Resources

3.17.1 Environmental Setting

3.17.1.1 *Regulatory Framework*

State

Assembly Bill 52

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

Under AB 52, TCRs are defined as follows:

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

3.17.1.2 *Existing Conditions*

As discussed in Section 3.5 Cultural Resources, there are four known prehistoric archaeological resources within the Specific Plan area. All of the Specific Plan area has a has an overall moderate to very high level of cultural sensitivity to known and potential Native American prehistoric and archaeological resources.

On July 9, 2021, Tamien Nation requested the City send notification letters to the tribe for all future projects within the City's geographical jurisdiction. In accordance with AB 52, the City submitted a notification letter to Tamien Nation regarding the Specific Plan Update on April 18, 2022. In addition, the City issued notification letters regarding the Specific Plan Update to other tribes recommended by the NAHC for other projects within the Specific Plan area.

On May 12, 2022, the City requested a Sacred Land File (SLF) search for evidence of cultural resources or traditional properties of potential concern that might be known on lands within or adjacent to the Specific Plan area by the NAHC. On June 26, 2022, the NAHC stated the results of

the SLF search were positive and recommended the City to contact the tribes included in the results letter. The tribes included in the July 26, 2022 NAHC results letter were the same tribes the SB 18/AB 52 notification of the Specific Plan Update was sent to on April 18, 2022. No tribes responded to the notification letters (issued under AB 52). AB 52 only requires formal consultation with a tribe if the tribe requests a consultation. In August 2022, given Tamien Nation's interest in previous projects within the Specific Plan area, the City reached out to Tamien Nation to determine if the tribe would like to set up a consultation for the Specific Plan Update. The City and Tamien Nation had a formal consultation on September 22, 2022. No known tribal cultural resources were identified based on the consultation. Tamien Nation requested a copy of the cultural resources assessment, once it became available, and the City provided this information to Tamien Nation on July 2, 2024. The City did not receive feedback from Tamien Nation.

3.17.2 Impact Discussion

For the purpose of determining the significance of the project's impact on tribal cultural resources, would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- 1) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?
- 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The 2013 Specific Plan EIR concluded the Plan area has an overall moderate to very high level of cultural sensitivity in regard to known and potential prehistoric and archaeological resources. The 2013 Specific Plan EIR predated the effective date of AB 52, which took effect in 2015. With the implementation of 2013 Specific Plan Policy CUL-1.3 which requires future projects to prepare project-specific Archaeological Resources Assessments (ARAs), future projects would have a less than significant impact on archaeological resources. No AB 52 tribal consultation was completed as a part of the 2013 Specific Plan EIR since AB 52 was not enacted until 2014.

3.17.2.1 *Project Impacts*

- a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?
-

As discussed in Section 3.18.1.2 Existing Conditions, no known TCRs are located within the Specific Plan area, but the areas is considered moderate to very high level of cultural sensitivity. Future development under the Specific Plan Update would comply with existing regulations, including AB 52 (as applicable), and Specific Plan Update Policies LU-7.1 through LU-7.11 (described in section 3.5 Cultural Resources) to protect TCRs that may be discovered during construction. There is no difference in the development footprint of Scenarios 1 and 2. Scenarios 1 and 2 would require the same amount of ground disturbance; as a result, there are not meaningful differences in the level of impact to tribal cultural resources between the 2013 Specific Plan and the Specific Plan Update Scenarios 1 and 2. The construction a loop road (which would accommodate vehicles) could result in more ground disturbance than the construction of a multi-use path (which would accommodate pedestrians and bicyclists). The construction of the loop road would be subject to the same mitigation and Specific Plan Policy (noted above) to reduce impacts to tribal cultural resources.

In addition, future projects shall implement the following Specific Plan Update policies to protect tribal cultural resources.

Proposed Specific Plan Update Tribal Cultural Resources Policies

- **Policy LU-7.12:** The City of East Palo Alto, Community and Economic Development Department, Planning Division will complete outreach to members of the Native American community identified by the Native American Heritage Commission (NAHC) in association with City for Initial Studies/Mitigated Negative Declarations and other higher level environmental review during the development permitting process. Project specific AB 52 consultation shall be required if tribes that are traditionally and culturally affiliated with the City's geographic area request a formal consultation.
- **Policy LU-7.13:** If the City determines a project has a potential to cause a substantial adverse change to a tribal cultural resources identified through project-specific AB 52 consultation, and measures are not otherwise identified in the consultation process required under PRC Section 21080.3.2, the project applicant shall implement the following measures to address site specific impacts to avoid or minimize potentially significant impacts:
 - Avoidance and preservation of the identified tribal cultural resource(s) in place, including but not limited to: planning and construction to avoid the resource(s) and protect the cultural and natural context, or planning greenspace, parks, or

other open space, to incorporate the resource(s) with culturally appropriate protection and management criteria

- Treatment of the resource(s) with culturally appropriate respect with an emphasis on the tribal cultural values and meanings of the resource, including but not limited to:
 - Protecting the cultural character and integrity of the resource;
 - Protecting the traditional use of the resource;
 - Protecting the confidentiality of the resource; and
 - Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

Future Specific Plan Update development in conformance with the above mentioned mitigation and Specific Plan Update Policies would not result in significant impacts to TCRs by researching, exploration, and monitoring for potential unknown resources, halting construction if a resource is encountered, and treating the find appropriately to reduce impacts to a less than significant level.

(Less than Significant Impact)

- b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource that is determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?
-

As discussed under Impact TCR-1, no TCRs are identified within Specific Plan Update and future development would comply with existing regulations and the Specific Plan Update policies to protect TCRs that may be discovered during future construction activities.

(Less than Significant Impact)

3.17.2.2 Cumulative Impacts

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

The geographic area for cumulative TCR impacts is the Specific Plan area and the adjacent areas, as it is assumed development in the area would affect similar resources. Future development projects that would occur during the 20-year timeframe for buildout of the Specific Plan (inside or outside the Specific Plan boundary) would comply with all applicable regulations, including AB 52, mitigation measures, and Specific Plan Policies under Impact TCR-1 (if applicable) to protect

unrecorded TCRs. For these reasons, cumulative projects (including the Specific Plan), would not result in a significant cumulative TCR impact.

(Less than Significant Cumulative Impact with Mitigation Incorporated)

3.18 Utilities and Service Systems

The following discussion is based, in part, on the Utility Impact Study (UIS) prepared for the Specific Plan Update by Schaaf & Wheeler in April 2023, and the Water Supply Assessment (WSA) prepared by Schaaf & Wheeler in June 2024. The UIS and WSA are included as Appendix G and Appendix H of this Draft SEIR, respectively.

3.18.1 Environmental Setting

3.18.1.1 *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 East Palo Alto 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 1383.¹¹²

California Green Building Standards Code

In January 2010, the State of California adopted the California Green Building Standards Code, establishing mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resources efficiency, and indoor environmental quality. These standards include the following mandatory set of measures, as well as more rigorous voluntary guidelines, for new construction projects to achieve specific green building performance levels:

Reducing indoor water use by 20 percent;

¹¹² 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.)

- Reducing wastewater by 20 percent;
- Recycling and/or salvaging 50 percent of nonhazardous construction and demolition debris; and
- Providing readily accessible areas for recycling by occupants.

Model Water Efficient Landscape Ordinance

The California Department of Water Resources requires all local agencies to adopt, implement, and enforce the Model Water Efficient Landscape Ordinance (MWELO) or a local Water Efficient Landscape Ordinance (WELO) that is as effective as or more stringent as the MWELO. Usually, local agencies that adopt WELOs create a more stringent ordinance than MWELO. The purpose of water efficient landscape ordinances is to not only increase water efficiency but to improve environmental conditions in the built environment. The City has adopted landscaping and irrigation conservation measures (refer to the City’s Municipal Code 13.24 below) and a Water Shortage Contingency Plan (as a part of the UWMP) in compliance with MWELO.

Local

Vista 2035 East Palo Alto General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating utilities and service systems impacts resulting from planned development within the City, including the following:

Policy	Description
<i>Economic Development</i>	
3.2	Concurrency. Require that infrastructure is in place or planned and funded prior to approval of new development projects that require such infrastructure, including water availability.
<i>Infrastructure, Services, and Facilities</i>	
1.3	Stormwater infrastructure for new development. Require development projects to pay for their share of new stormwater infrastructure or improvement necessitated by that development.
2.2	Water supply infrastructure. Improve infrastructure to ensure the provision of a clean, reliable citywide water supply sufficient to serve existing and planned development.
2.4	Water supply planning and demand offset regulations for new or intensified development. Consider and adopt a water offset ordinance or other policy to reduce the water demand and to ensure adequate water supply exists to meet the needs of new projects or intensified development. Allow the City the right to require a Water Supply Assessment of any development project. The policy will consider the type and size of projects that might be exempt, the water offset ratio, the method for analyzing the projected water demand and methods for offsetting demand, the types of demand reduction/mitigation implementation options (e.g., on-site or off-site design or building

modification), including an in-lieu fee, that will be required, a method for estimating the savings from on-site or off-site efficiency measures, and the appropriate regulatory instruments to enforce, implement, and monitor the offset policy.

2.6 **Water infrastructure for new development.** Require development projects to pay for their share of new water infrastructure or improvements necessitated by that development, including but not limited to water supply, storage, and conservation, and recycled water.

2.7 **Municipal water conservation and efficiency.** Seek to reduce municipal water use through the following strategies:

- Implement aggressive indoor and outdoor water efficiency measures in all new city developments, substantial rehabs and remodels.
- Prioritize water efficiency upgrades to existing buildings, such as water efficient fixtures.

Reduce potable water used for parks, by planting drought-tolerant species and implementing other water saving practices.

2.8 **Citywide water conservation and efficiency.** Encourage and promote community water conservation and efficiency efforts, including indoor and outdoor efforts that exceed CALGreen requirements.

4.2 **Waste reduction.** Seek to reduce East Palo Alto's rate of waste disposal per capita, and to increase the diversion rate of recycling and green waste.

4.4 **Construction waste.** Encourage all construction projects to divert 80% of their construction waste away from landfills, exceeding CALGreen requirements.

City of East Palo Alto Urban Water Management Plan

The East Palo Alto UWMP was developed based on the growth projections and land use changes included in the Vista 2035 General Plan and based on the Water Supply Assessment prepared in support of the General Plan. The UWMP concluded that the City would have adequate supplies during normal years through 2045. However, under both single- and multiple-dry years beginning in 2025, the City would experience water supply shortages. Additionally, from 2023 through 2025, if the Bay-Delta Plan Amendment is implemented, under single- and multiple dry-years, water supplies from SFPUC are expected to be reduced further contributing to additional water supply shortages.¹¹³ To address these potential water shortages, the UWMP identifies water conservation measures such as restricting the time and duration of potable water use for irrigation, requiring hotels and motels to limit laundry service to at the end of a guests stay or at the guest's request, requiring restaurants to only serve water when requested by customers, as well as limiting the number and times of day when agricultural and commercial nursery operations are allowed to use potable water. Implementation of water conservation measures identified in the UWMP would ensure adequate water supplies would be available during single- and multiple-dry years.

¹¹³ The Bay-Delta Plan Amendment requires the release of waters in SFPUC supplies to three San Joaquin River tributaries (the Stanislaus, Merced, and Tuolumne Rivers) and the Bay-Delta, reducing the amount of water available to serve SFPUC customers during single and multiple-dry years. Source: City of East Palo Alto. *Final Urban Water Management Plan*. June 2021.

East Palo Alto Municipal Code 13.24 Landscape and Irrigation

The City's Municipal Code 13.24.330 states that no building permit is issued for buildings until the Department of Public Works Superintendent or designee reviews and approves a landscape plan for the project. A certificate of occupancy is issued only if landscaping and an irrigation system is installed in compliance with the approved landscape plan consisting of the elements set forth below:

- The landscape plan shall include:
 - a calculation of water consumption for the landscaped area; a planting scheme;
 - an irrigation plan; and
 - a grading plan if found to be necessary by the City's Community Development Director.

Projects required to comply with the above standards are apartments developments, condominiums, any multiple-unit residential developments; commercial developments; industrial developments; single-family residential and recreational developments. In addition, Municipal Code 13.24.370 requires projects to submit an irrigation plan which includes measures for irrigation systems designed to be water efficient and water conserving.

3.18.1.2 *Existing Conditions*

Water Service and Supply

The City of East Palo Alto water system receives its domestic water from the County of San Francisco's Regional Water System operated by the San Francisco Public Utilities Commission (SFPUC). Supply comes from the Sierra Nevada mountain range and is delivered through Hetch Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo counties. Limited groundwater is produced for non-potable uses such as street sweeping and construction.

The SFPUC supplies to both retail and wholesale customers located within the City and County of San Francisco, and outside of San Francisco at Treasure Island, the Town of Sunol, San Francisco International Airport, and Lawrence Livermore Laboratory. The SFPUC also sells water on a wholesale basis to 26 water agencies in San Mateo, Santa Clara, and Alameda counties (including the City of East Palo Alto). The amount of imported water available to the SFPUC's retail and wholesale customers is constrained by hydrology and physical facilities. Due to hydrological and physical facilities constraints, the SFPUC is dependent on reservoir storage to firm-up its water supplies.

The majority of East Palo Alto, including the Specific Plan area is served by the City's water system, which is operated as a public-private partnership between the City and Veola.¹¹⁴ According to water demand calculations completed for the proposed Specific Plan Update, the water demand for existing development within the Specific Plan area is approximately 136,700 gallons per day.¹¹⁵

Water System and Fire Flow

Water Storage

Potable water storage facilities are typically used within distribution systems to meet peak demands and provide emergency and fire flow storage. The City's distribution system currently does not include any water storage facilities. Peak demands and fire flows are met through supplies from the SFPUC. The City is currently required by the State Water Resources Control Board (SWRCB) Department of Drinking Water (DDW) to install storage facilities to meet emergency and fire flows.

Water storage capacity includes equalization storage, fire storage, and emergency storage. Water storage is typically used to meet peak demands and then is refilled during low demand periods when the water supply is greater than water demand. The storage volume used to meet these high demand periods is called operational or equalization storage. The recommended equalization storage in the City's Water System Master Plan (WSMP) is equal to 25 percent of maximum daily demand (MDD).

Emergency storage is required to supply demands during various emergencies, such as natural disasters, pipeline failures, treatment failures, power outages or pump station failures. Based on the WSMP, the recommended emergency storage requirement is 100 percent of average daily demand (ADD). The City's groundwater basin can account for a portion of the City's emergency storage requirement. Groundwater credit for emergency storage is defined as the quantity of groundwater which can reliably be produced in the event of an emergency over an 18-hour period. Fire storage is required to meet a commercial fire flow 4,000 gallons per minute (gpm) for 4 hours, which is equivalent to 0.96 million gallons (MG). The total existing required storage is 3.02 MG. The City currently does not have any storage tanks within its system; however, the City is working with local developers to construct 1.65 MG of storage (at the Pad D pump station 0.15 MG at 1791 East Bayshore Road at and the 1.5 MG, 375 Donohoe Avenue tank). The City has an existing groundwater credit of 0.16 MG.¹¹⁶ Therefore, the City has an existing water storage deficit of 2.86 MG.

¹¹⁴ City of East Palo Alto. "Utilities." Accessed January 28, 2021. <https://www.ci.east-palo-alto.ca.us/publicworks/page/utilities>. Other purveyors within City limits include the Palo Alto Park Municipal Water Company, serving customers in the western portion of the City, and the O'Connor Tact Co-operative Water Company, serving the southwestern portion of the City.

¹¹⁵ City of East Palo Alto. Water Supply Assessment for the Ravenswood Business District. February 7, 2024.

¹¹⁶ Groundwater credit for emergency storage is defined as the quantity of groundwater which can reliably be produced in the event of an emergency over an 18-hour period. The groundwater credit is calculated based on the groundwater supply of facilities equipped with backup power.

Fire Flow and Hydraulic Conveyance

The Menlo Park Fire District establishes minimum fire flow requirements and durations based on the California Fire Code, which the City is responsible for providing in its water distribution system. Required fire flows are based on land use designations and are designed to be conservative for long-term planning. A minimum fire flow of 4,000 gpm for four hours should be provided in all areas except those designated as low-density residential in the City's General Plan Zoning Map. In low-density residential areas consisting of single-family residential units, a fire flow of 1,000 gpm for two hours is required. These fire flows must be available for a minimum of two hours in conjunction with MDD conditions while maintaining a minimum residual pressure of 20 psi at all service connections.

The WSMP uses peaking factors to estimate MDDs and peak hour demands (PHDs) for purposes of evaluating the City's water distribution system performance under peak demand conditions. The distribution system's ability to maintain adequate system pressures is the primary indicator of acceptable system performance. System performance is evaluated against the following pressure criteria:

- A minimum pressure of 40 psi at all service connections is targeted at all service line connections during normal operating conditions (PHD conditions).
- A minimum pressure of 20 psi is required at all service line connections at all times, including fire flow conditions (MDD plus fire flow conditions)
- A maximum pressure of 80 psi is required at all service connections where there are not individual service PRVs installed

System pressures are evaluated under peak hour demand (PHD) under existing conditions). Under existing conditions, multiple nodes in the southern portion of the City do not meet the minimum pressure requirements. Modeled fire flow availability (MDD plus fire flow) under existing conditions is shown on Figure 3.18-1. Large areas of the system cannot meet the enhanced fire flow requirements established by Menlo Park Fire District with existing infrastructure. Under existing conditions, the City's water system does not meet system design criteria at PHD conditions, nor does it meet fire flow requirements.

Wastewater Services and Sanitary Sewer Flow

Wastewater Treatment

Wastewater services in the Specific Plan area are provided to the City of East Palo Alto by the East Palo Alto Sanitary District (EPASD).¹¹⁷ EPASD infrastructure includes approximately 30 miles of sewer lines and 560 manholes. According to the General Plan EIR, the average dry weather flow for the EPASD is 1.5 million gallons per day (mgd) and average wet weather flow for the EPASD is

¹¹⁷ City of East Palo Alto. *Water, Garbage, & Sewer Services*. Accessed January 27, 2020. <http://www.ci.east-palo-alto.ca.us/index.aspx?NID=512>

unknown. Wastewater from the EPASD service area is treated at the Palo Alto Regional Water Quality Control Plant (PARWQCP).¹¹⁸

The City of Palo Alto owns, maintains, and upgrades the PARWQCP, based on the RWQCB permit, and the contributing jurisdictions purchase capacity rights. Discharge from the PARWQCP is required to meet stringent standards to protect the health of the South Bay, where the water is discharged. The PARWQCP operates under the conditions of a RWQCB discharge permit that regulates discharge limits. The PARWQCP has a dry weather capacity of 39 mgd and a wet weather capacity of 80 mgd.¹¹⁹ Of this total, the EPASD is allocated a total treatment capacity of 2.9 mgd for average dry weather flow. Peak dry weather flows into the plant are currently 35 mgd and peak wet weather flows typically do not exceed 70 mgd.

Sanitary Sewer Flow

Existing development within the Specific Plan area currently has a sewer flow of 124,120 gallons per day (gpd).¹²⁰ Sewer capacity is analyzed under Peak Wet Weather Flow (PWWF) and Average Dry Weather Flow (ADWF). The EPASD has standard performance and design criteria to ensure no pipes are flowing completely full. PWWF is used to determine hydraulic deficiencies according to the performance criteria, which is for sewer pipes to have a maximum flow depth/pipe diameter (d/D) of less than one inch. The existing sewer system does not have sufficient capacity for peak wet weather flows for the City's existing development. Approximately 12,789 feet of pipe within the Specific Plan area does not meet the d/D performance criteria.

To address the deficiencies, three capital improvement projects (CIPs) will be implemented by the EPASD by 2030: Bay Road CIP, Eastern Main Trunk CIP, and Dual Trunk to RWQCP CIP. The CIPs were developed using the 2020 EPASD Sewer Master Plan Update CIPs and were further modified to ensure all pipes in the system meet the hydraulic requirements. The three CIPs include 21 pipe segments totaling approximately 8,500 feet. The Bay Road CIP includes upsizing 745 feet of 12-inch to 14-inch pipes. Eastern Main Trunk CIP includes upsizing 1,855 feet of 18-inch and 21-inch pipes to 24-inch and 28-inch. Dual Trunk to RWQCP CIP includes installing 5,935 feet of 18-inch parallel to the existing trunk. With these CIPs, the sewer system meets EPASD's current d/D performance criteria for existing conditions.

¹¹⁸ City of East Palo Alto. *General Plan Update Draft Environmental Impact Report*. April 2016.

¹¹⁹ City of Palo Alto. *City Council Staff Report (ID#9485): Design Services for RWQCB Secondary Treatment Process Upgrades*. October 1, 2018. Accessed January 27, 2020.

<https://www.cityofpaloalto.org/civicax/filebank/documents/66788>

¹²⁰ City of East Palo Alto. *Ravenswood Business District Specific Plan Update Utility Impact Study*. Table 4-1 EPASD Sewer Generation Rates April 21, 2023.

Existing sewer generation rates were calculated using the Utility Impact Study sewer generation rates and the existing conditions square footage in Table 2.3-1 of this SEIR.

Storm Drainage

The City of East Palo Alto's storm drainage system is composed of networks of pipes, channels, storage ponds, and pump stations which outlet to San Francisquito Creek and the San Francisco Bay.¹²¹ Stormwater in the City drains into two major drainage systems: the Runnymede Storm Drain System and the O'Connor Storm Drain System. Due to their proximity to the San Francisco Bay, portions of the drainage systems are influenced by tide. Many of the streets do not have storm drains, and those that do are unable to handle stormwater during peak events, resulting in flooding during 10-year storm events.

The Specific Plan area is primarily served by storm drain systems that convey flow to O'Connor Pump Station during periods of high tide when gravity outfalls are not active. The northern portion of the Specific Plan area (approximately areas north of Bay Road) is comprised of watersheds that discharge directly to the San Francisco Bay and are not currently connected to the O'Connor Pump Station. The City prepared a Storm Drain Master Plan (SDMP) in 2014. The SDMP identified CIPs for the City of East Palo Alto to alleviate or minimize flooding during a 10-year storm event. The existing conditions SDMP model was updated to reflect new infrastructure built as part of the Bay Road Storm Drain Improvement Project (which was a recommended CIP in the SDMP within the Specific Plan area), completed in 2018. No other high priority storm drain improvements were identified to serve the existing development.

Solid Waste

East Palo Alto is a member of the South Bay Waste Management Authority (SBWMA), a joint powers authority whose other members include Atherton, Belmont, Burlingame, Foster City, Hillsborough, Menlo Park, Redwood City, San Carlos, San Mateo, the West Bay Sanitary District, and San Mateo County.¹²² The Shoreway Environmental Center (SEC) serves as a regional solid waste and recycling facility for the receipt, handling, and transfer of solid waste and recyclables collected from the SBWMA service area.

Uses within the existing Specific Plan area generate approximately 888 tons (3,286 cubic yards) of solid waste per year.¹²³ Solid waste generated by uses in the Specific Plan area (as well as other SBWMA member communities) is transported to the Ox Mountain Landfill near Half Moon Bay. The remaining permitted capacity of the landfill is 15,741,826 cubic yards (as of December 31, 2023).¹²⁴

¹²¹ City of East Palo Alto. *Vista 2035 East Palo Alto General Plan*. October 2016

¹²² Personal Communications. Devincenzi, Monica G., Republic Services. Re: Ox. Mtn. – Remaining Landfill Capacity. March 20, 2024.

¹²³ California Air Pollution Control Officers Association. User Guide for CalEEMod Version 2022.1
0.930 tons/1,000 sf x 125,000 sf office= 116 tons. 1.240 tons/1,000 sf x 125,000 sf light industrial = 155 tons. 1.050 tons/1,000 sf x 200,000 sf retail = 210 tons. 0.930 tons/1,000 sf x (75,000 sf civic + 25,000 sf amenity) = 93 tons.
0.274 tons/unit x 1,020 multi-family units = 279 tons. 0.247 tons/unit x 140 single family units = 35 tons.
1 metric ton = 3.7 cubic yards

¹²⁴ CalRecycle. SWIS Facility Detail: Corinda Los Trancos Landfill (Ox Mtn) (41-AA-0002). Accessed August 1, 2022.
<https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/3223>

Based upon current waste disposal rates, the estimated closure date for the landfill is January 1, 2047.

3.18.2 Impact Discussion

For the purpose of determining the significance of the project's impact on utilities and service systems, would the project:

- 1) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
- 2) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- 3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
- 4) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
- 5) Be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste?

3.18.2.1 *Project Impacts*

-
- a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
-

The below discussion analyzes the impacts of the Specific Plan Update, Scenarios 1 and 2 (including the multi-use path, with and without the loop road). The multi-use path and the loop road would not result in utility demand, with the exception of electricity for street lighting. Future projects could construct additional utilities within the loop road right-of-way to serve future project sites on the western border the Specific Plan area. With the implementation of the Specific Plan Policies listed below, the installation of utilities within the loop road right-of-way would not result in the relocation/construction of new or expanded utilities that would cause a significant environmental impact.

Water System and Fire Flow

The 2013 Specific Plan EIR concluded that new groundwater wells and recycled water pipelines would be needed to provide the additional water supplies required to meet demand from buildout

of the Specific Plan. The 2013 Specific Plan EIR also concluded the environmental effects of obtaining an increased water supply from groundwater wells would require supplemental environmental review. Analysis of the use of recycled water would need to include verification that the water quality is adequate and that there would be no adverse health effects from its use. The EIR concluded that the environmental effects of these improvements would be reduced to a less than significant level with implementation of 2013 Specific Plan Policy UTIL-2.1.

2013 Specific Plan Policy UTIL-2.1:

- Prior to developing an increased municipal water supply, conduct a project-level environmental analysis of the environmental effects of obtaining the increased supply. For any proposed new groundwater well, or increase in pumping from existing wells, ensure that the analysis considers, at a minimum, a) land subsidence and exacerbation of existing flood risks; b) salt-water infiltration of the aquifer; c) entrainment of contamination; d) cumulative effects from drawdown of the aquifer; e) impacts from construction of a new treatment facility, including storage reservoirs; and f) installation of additional piping. For any proposed recycled water usage, ensure that the analysis contains, at a minimum, verification that the water quality is adequate and that there would be no adverse health effects from its use.

The City of East Palo Alto, including the Specific Plan area, does not currently have access to recycled water lines. Therefore, part f) of Policy UTIL-2.1 regarding recycled water usage is not applicable to future projects under the Specific Plan Update, unless the City obtains access to recycled water lines prior to buildout of the Specific Plan Update.

Water Storage

The impact of the Specific Plan Update buildout on the utility system for water storage was analyzed under cumulative conditions. The Citywide total water storage required (which includes the 2013 Specific Plan water storage required) would be 3.14 MG, assuming buildout of Scenario 1 would be 4.17 MG, and assuming buildout of Scenario 2 would be 4.37 MG. The water storage requirement for buildout of the 2013 Specific Plan alone would be 1.5 MGD, the Specific Plan Update (under Scenario 1, with and without the loop road) would be 2.1 MGD, and the Specific Plan Update (under Scenario 2) would be 2.3 MGD. Buildout of Scenario would require 0.6 MG more water storage and Scenario 2 requires 0.8 MG more water storage compared to the 2013 Specific Plan storage requirement accounted for in the City's Water System Master Plan.

As described in Section 3.18.1, there is no existing storage in the City's water system. The City has an existing groundwater well (groundwater credit of 0.16 MG) and plans to construct an additional well in the future to increase the groundwater credit to 0.7 MG. The location of where the additional well would be located is currently unknown. The City plans to complete a tank siting study to determine an appropriate location of the well. The additional well is considered a Priority 3 project in the WSMP, which likely means the well would be constructed within 15 to 20 years (of when the 2023 WSMP was prepared); improvements identified in the WSMP, including the

additional well, would be constructed by 2040. Multiple tanks are currently being designed to provide 1.65 MG of storage. However, a water storage deficit of 1.8 MG would occur under development Scenario 1 and 2.0 MG under development Scenario 2.

Two additional tanks considered high priority CIPs in the WSMP are planned for construction. New water storage tanks are required to meet the City's water storage requirements. Water storage tanks and booster stations were included as a portion of the 2023 WSMP CIP. Based on the WSMP, the storage tanks are a Priority 1A project, which is a project in which the City has a goal to complete within five years of when the WSMP was completed in 2023. The WSMP states the storage tanks would be located east of U.S. 101, however, the exact location of where the tanks would be located is unknown.

Future developers under the Specific Plan Update Scenarios 1 and 2 would be required to comply with the following proposed Specific Plan Update Policy.

Proposed Specific Plan Update Policy:

- **Policy UTIL-1.2:** Ensure that utility improvements are constructed per the standards identified in this Specific Plan Update and other applicable City standards (including Veolia and EPASD), and that each project contributes at least its proportionate fair share towards infrastructure, as detailed in the Nexus Study.

The City has completed a Nexus Study which outlines the Specific Plan Update utility improvements required and the fair share contribution required by future developers. In accordance with Specific Plan Update Policy UTIL-1.2, future project applicants would be required to make a fair share contribution toward the construction of the new water storage tanks. With the future storage tanks, the City would have adequate storage capacity to serve the Specific Plan Update buildout under both development scenarios.

The City assesses water storage capacity every five years, as a part of the updates to the Urban Water Management Plan, to determine if and when improvements are necessary to provide adequate storage capacity. Future improvements to increase water storage capacity could include use of groundwater wells with backup power as additional storage, construction of additional storage tanks, and structurally retrofitting existing tanks to allow full use of existing tank volumes. At the time the design and construction details of these improvements are known, the City shall complete environmental review and require mitigation measures to reduce the environmental impacts to a less than significant level. Compliance with existing regulations and proposed Specific Plan Update Policy UTIL-1.2 would reduce impacts from water storage projects in infill locations to a less than significant level.

(Less than Significant Impact)

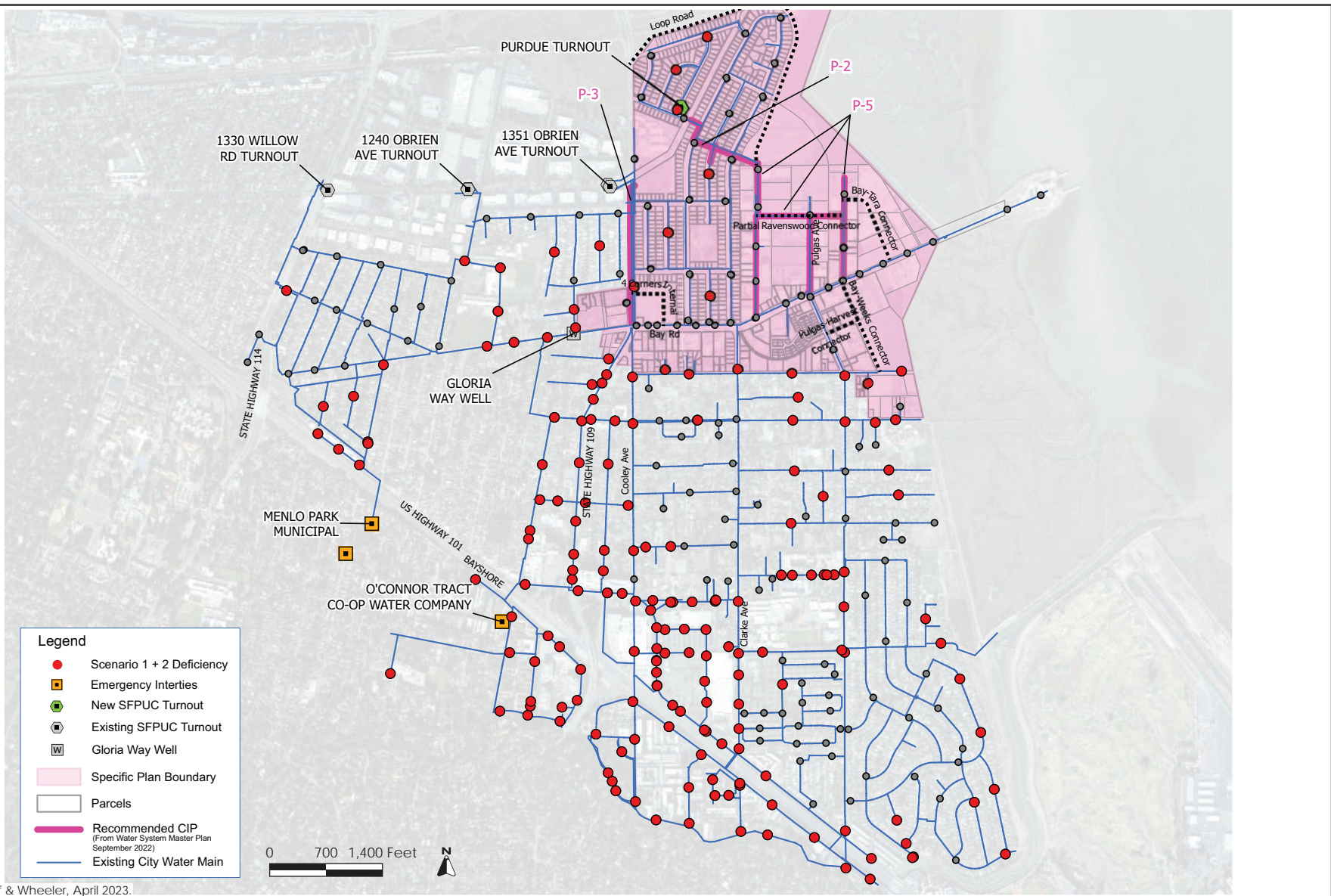
Fire Flow and Hydraulic Conveyance

Modeling was completed to evaluate the capacity of the existing water system to serve buildout of the Specific Plan Update (refer to Appendix G for details about the modeling and inputs). Based on model results, the water system does not meet minimum pressure requirements at many of the southern nodes. Assuming the CIPs required to reduce the impacts of the maximum daily demand plus fire flow deficiencies are constructed; the system meets the minimum pressure requirements for peak hour demands for development scenarios 1 and 2. Table 3.18-1 and Figure 3.18-1 show the CIPs required to reduce impacts of the Specific Plan Update buildout on the water system/fire flow to less than significant.

Table 3.18-1: Fire Flow CIPs Required			
CIPs	Location Description	Existing Diameter (inches)	Development Scenarios 1 and 2 Proposed Diameter (inches)
P-2	New Purdue Turnout and Pipeline along Purdue Avenue 1,280 feet	N/A	16
P-3	University Avenue between O'Brien Drive and Bay Road 1,800 feet	N/A	12
P-5	In-Tract Piping, 8,180 feet	6, 8, and 10	12 and 16

With the buildout of the Specific Plan Update Scenarios 1 and 2, CIPs P-3 and P-5 would be required. In addition to the two CIPs, the installation of the SFPUC supply turnout and associated 16-inch transmission main in Purdue Avenue proposed as a portion of CIP P-2, would be required to be installed to provide the required fire flows in the Specific Plan area and mitigate impacts throughout the remainder of the City.

The water system CIPs are funded through the collection of water connection fees. Future developers will be required to pay the water connection fee prior to development or redevelopment of a property.



FIRE FLOW CIPS SCENARIOS 1 AND 2

FIGURE 3.18-1

With the implementation of these improvements, the City's water system would meet the minimum service pressure requirements to provide reliability under maximum daily demand plus fire flow, accommodating future demands in the Specific Plan area. At the time construction details are known, the City shall complete environmental review and future development projects shall contribute a fee toward improvements. Based on previous analyses for utility improvements located within existing rights-of-way in developed East Palo Alto locations, the environmental effects associated with construction can be mitigated to less than significant levels. Therefore, buildout of the Specific Plan Update would not result in the relocation or expansion of water facilities that would cause significant environmental effects.

(Less than Significant Impact)

Wastewater Collection and Sanitary Sewer System

The 2013 Specific Plan EIR concluded that buildout of the 2013 Specific Plan would include a new system of sanitary sewer main pipes that would be installed as part of the Specific Plan along Demeter Street, Pulgas Avenue (south of the new connector road), Tara Street (to the end of the existing street), Bay Road and Weeks Street, which would not result in significant environmental impacts. The 2013 EIR does not include an analysis of the Specific Plan's buildout impact on the performance of the existing sewer system.

The capacity of the existing sanitary sewer system to serve the Specific Plan area, with buildout of the Specific Plan Update under both scenarios, was evaluated based on wastewater collection and sanitary sewer system pipeline design criteria developed for pipelines within the Specific Plan area (refer to Appendix G for extensive information regarding design criteria for pipe diameter, maximum flow depth, and minimum and maximum slopes). The model showed that under future flows from buildout of the Specific Plan Update, several pipelines would exceed maximum flow depth design criteria (discussed under Section 3.19.1.2 Existing Conditions) under peak wet weather flows.

The existing sewer mains would not meet demands associated with buildout of the Specific Plan Update (under either development scenario). Under existing conditions, 12,789 feet of pipe does not meet the d/D performance criteria. The CIPs to address these deficiencies, discussed in Section 3.18.1, are assumed to be installed in the existing plus Specific Plan Update buildout conditions (as stated in the proposed Specific Plan Update Policy UTIL-1.7 below).

Proposed Specific Plan Update Policy:

- **Policy UTIL-1.7:** Ensure future projects will make a fair share contribution toward the Bay Road, Eastern Main Trunk, and Dual Trunk to RWQCP capital improvement projects (CIPs) identified in Table 5-4 Recommended RBD Sewer CIPs for Existing Conditions of the Utility Impact Study, which address the deficiencies in the City's existing sewer pipe maximum flow depth/pipe diameter (d/D). EPASD (or the City's current sanitary sewer service provider) will implement these improvements prior to the Specific Plan Update buildout (2040).

The three CIPs (discussed in Specific Plan Update Policy UTIL-1.7) include 21 pipe segments totaling approximately 8,500 feet. The Bay Road CIP includes upsizing 745 feet of 12-inch to 14-inch pipes. Eastern Main Trunk CIP includes upsizing 1,855 feet of 18-inch and 21-inch pipes to 24-inch and 28-inch. Dual Trunk to RWQCP CIP includes installing 5,935 feet of 18-inch parallel to the existing trunk. As stated in Policy UTIL-1.7, EPASD (or the City's current sanitary sewer service provider) will implement these improvements prior to the Specific Plan Update buildout.

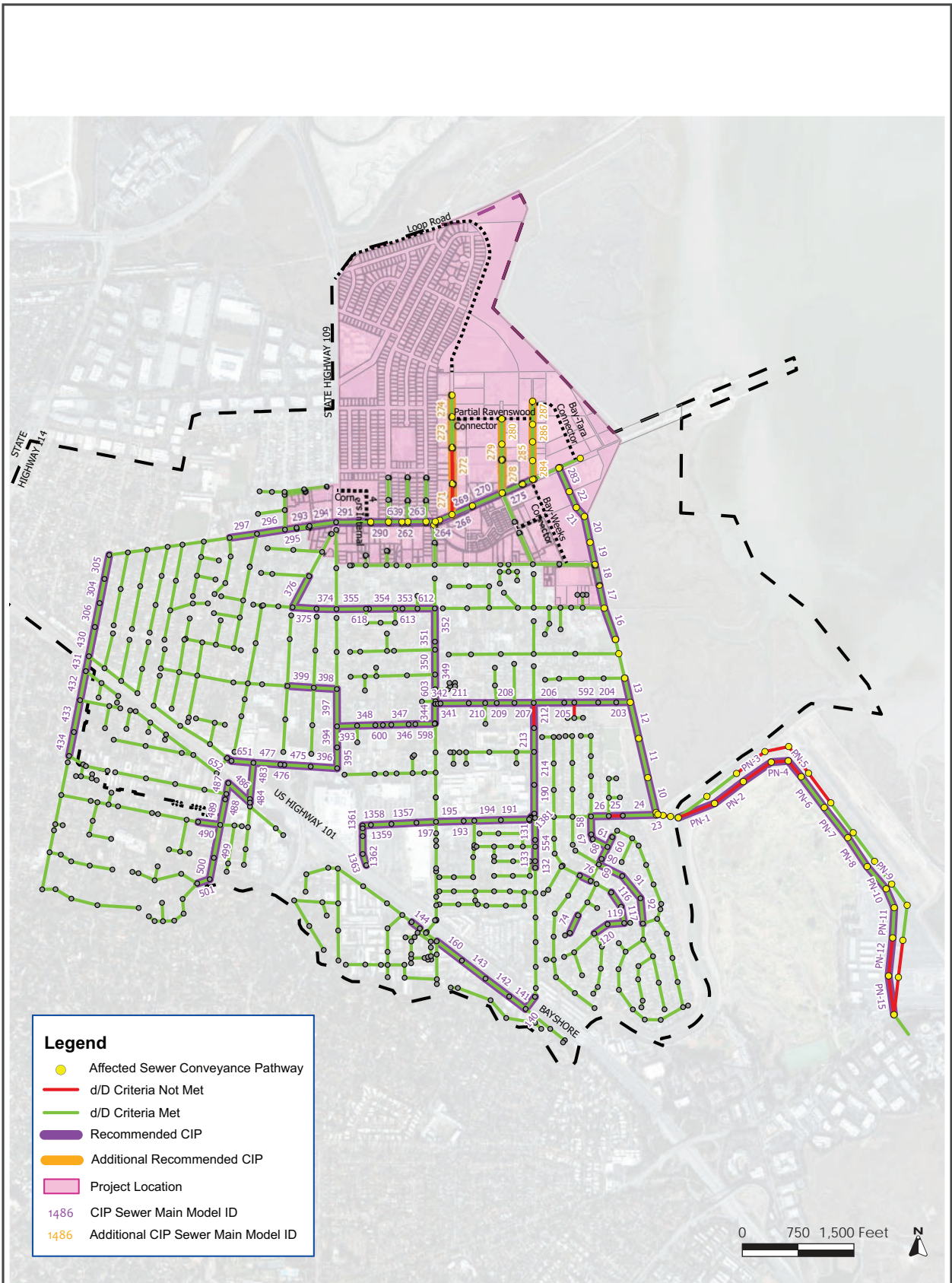
The Specific Plan Update Scenario 1 would add 638,244 gallons per day of sanitary sewer flow, Scenario 2 would add 819,038 gallons per day of sanitary sewer flow, compared to 310,038 gallons per day for the 2013 Specific Plan. The sanitary sewer flow would almost double for Scenario 1 and would be 2.6 times greater for Scenario 2, when compared to the sewer flow for the 2013 Plan.

With the increase in wastewater flow above existing conditions from development scenario 1, an additional 3,490 feet of pipe would not meet the d/D performance criteria compared to existing conditions. With the increase in flow from development scenario 2 above existing conditions, an additional 3,806 feet of pipe would not meet the d/D performance criteria compared to existing conditions. The deficient pipes for development Scenarios 1 and 2 are identified in Figures 3.18-2 and 3.18-3.

As a result, additional CIPs would be required for Specific Plan Update buildout development Scenarios 1 and 2 to address these deficiencies. For Scenario 1, five pipe segments identified in the WSMP would need to be upsized and an additional 7,660 feet of piping is required to be upgraded. For Scenario 2, 23 pipe segments need to be larger and an additional 8,030 feet of piping would need to be upgraded (refer to Figures 3.18-2 and 3.18-3, as well as Table 5-4 in Appendix G of this SEIR).

Implementation of these improvements would increase pipeline capacity to meet design criteria under cumulative buildout peak wet weather flow conditions, accommodating Specific Plan Update development Scenarios 1 and 2 (assuming the existing CIPs are implemented as stated in the above Specific Plan Update Policy UTIL-1.7). These improvements have not been implemented, are not fully funded, and are subject to separate project specific environmental review. At the time construction details are known, EPASD shall complete environmental review and future development projects shall contribute a fee toward improvements. Based on previous analyses for utility improvements located within existing rights-of-way in developed East Palo Alto locations, the primary environmental effects associated with construction, such as ground disturbance encountering cultural resources, temporary air quality impacts, temporary noise impacts, etc. can be mitigated to less than significant levels. Thus, buildout of the Specific Plan Update would not result in the relocation or expansion of wastewater and sewer system facilities that would cause significant environmental effects, in that significant effects would be avoided or reduced by commonly employed mitigation discussed throughout this Draft SEIR for construction impacts.

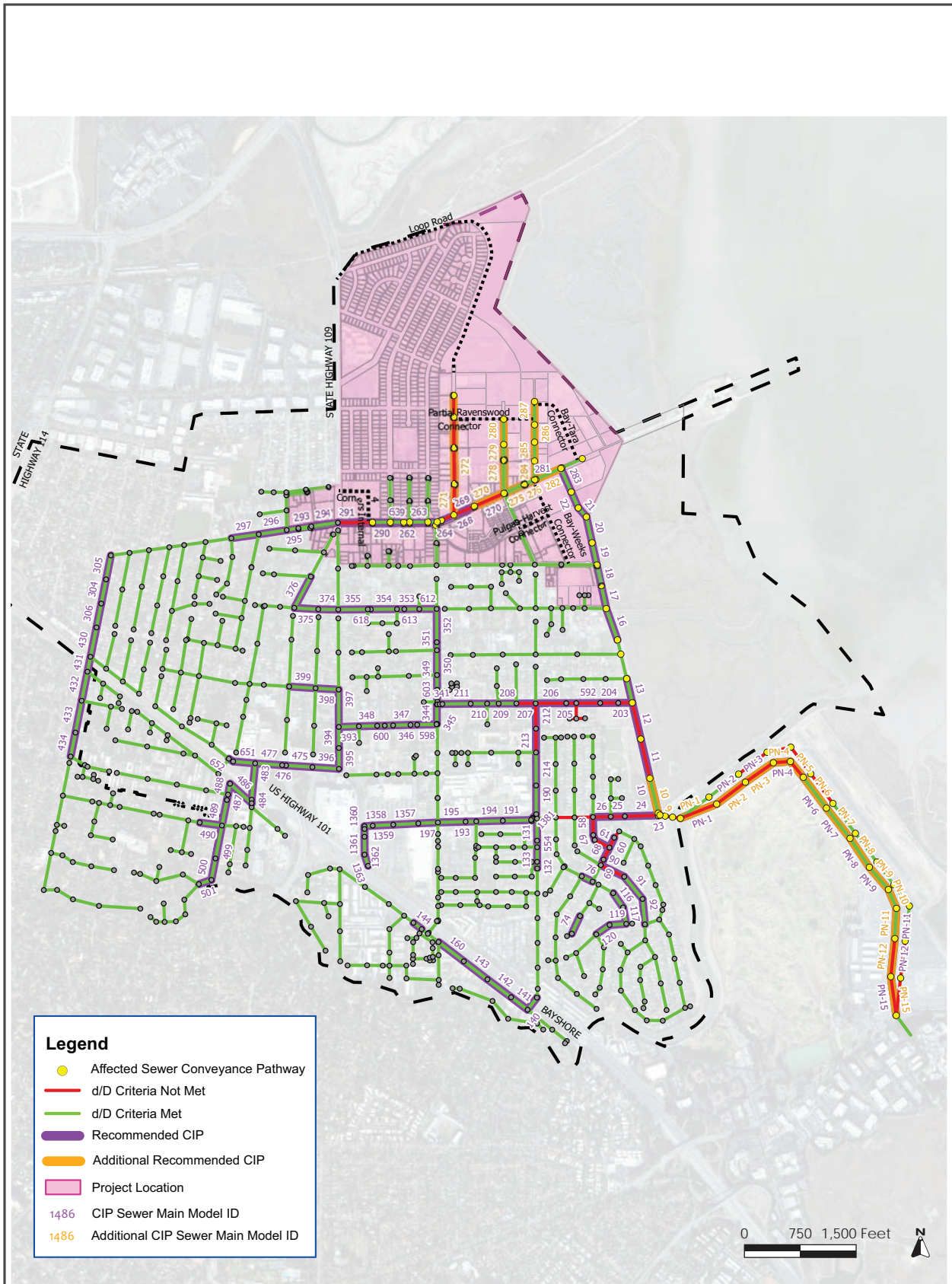
(Less than Significant Impact)



Source: Schaaf & Wheeler, April 2023.

SEWER SYSTEM DEFICIENCIES AND CIPS SCENARIO 1

FIGURE 3.18-2



Source: Schaaf & Wheeler, April 2023.

SEWER SYSTEM DEFICIENCIES AND CIPS SCENARIO 2 FIGURE 3.18-3

Stormwater Drainage

The 2013 Specific Plan EIR concluded that any development in the northern part of the Specific Plan area (including 391 Demeter Street and the University Village neighborhood), which was not analyzed in the 2013 Specific Plan EIR could cause environmental impacts, however, those impacts would be analyzed in separate CEQA reviews. The northern part of the Specific Plan area is the undeveloped area north of the Demeter Street terminus. The 391 Demeter Street property is the vacant grassland area just north of the Demeter Street terminus. Placing new development on the 391 Demeter Street Property in the path of floods would be a new impact. Implementation of the below 2013 Specific Plan Policy UTIL-3.2 as new development occurs within the northern part of the Specific Plan would reduce drainage impacts from flooding to less than significant.

2013 Specific Plan Policy UTIL-3.2:

- Ensure that a storm water system for the northern part of the Plan Area, including 391 Demeter and the University Village neighborhood, is designed in a coordinated manner to provide adequate capacity for peak rain events, and maintain functionality of existing storm water infrastructure.

The 2013 The southern section of the Plan area is the developed area south of the 391 Demeter Street property. The 2013 Specific Plan EIR concluded that with the implementation of 2013 Specific Plan Policy UTIL-3.1 (presented below), the 2013 Specific Plan would have less than significant impacts on stormwater drainage systems.

2013 Specific Plan Policy UTIL-3.1:

- Ensure that the storm sewer system described in the 2008 Draft Engineering Plan (DEPLAN) for the Ravenswood Business District (RBD), or one that is functionally similar, is built.

The DEPLAN reviewed the capacity of the existing stormwater system in the southern portion of the Plan Area and proposed construction of a new, additional, Ravenswood Storm Sewer System to join the Runnymede system at the point of discharge into the existing surface channel at the end of Runnymede Street. Thus, project-level impacts associated with the provision of stormwater drainage infrastructure within the southern portion of the Specific Plan area would be less than significant and program level impacts throughout the whole Specific Plan area would be less than significant.

The 2023 Utility Impact Study (UIS) completed for the Specific Plan Update would replace the above-mentioned DEPLAN as the 2023 UIS provides an updated analysis of storm drainage impacts in the Specific Plan area. University Village is no longer a part of the Specific Plan area. Therefore, the 2013 Specific Policy UTIL-3.2 would only apply to the 391 Demeter Property (undeveloped land north of the Demeter Street terminus) to be developed under the Specific Plan Update.

The City prepared a Storm Drain Master Plan (SDMP) in 2014, which analyzed existing storm drain capacity under 10-year design storm events and was used as the basis of the UIS storm drain system analysis (Appendix G). The Utility Impact Study concluded that under existing conditions and existing plus Specific Plan conditions (both Scenario 1 and 2), the existing storm drain system does not have sufficient capacity, as the storm drain system is significantly affected by the San Francisco Bay tides and the low-lying topography of East Palo Alto. The SDMP identifies CIPs to improve the storm drain system by conveying stormwater south towards the existing O'Connor Pump Station and away from outfalls along San Francisco Bay, thereby eliminating the influence of tides. Stormwater in areas north of Bay Road, comprised of wetland/watershed areas, discharges directly into the San Francisco Bay and are not connected to the O'Connor Pump Station.

The stormwater system model analysis in Appendix G identified two new pump station CIPs for Specific Plan scenarios 1 and 2. One of the CIPs includes construction of a new Bay Road Pump Station, which will be required as soon as development is constructed on the north side of Bay Road, which will require new public storm drain infrastructure that is unable to drain to the existing public system by gravity.

The construction of the new Bay Road Pump Station, however, would result in flooding along Pulgas Avenue and Bay Road. The addition of discharge from the Bay Road Pump Station to Bay Road and Pulgas Avenue systems would raise the downstream hydraulic grade line causing flooding, at depths greater than one foot, along Bay Road. The Bay Road and Pulgas Avenue piping systems (constructed in 2018) would need to be upsized/replaced or a pump station on Runnymede Street (Runnymede Pump Station) would need to be constructed to reduce the hydraulic grade line in the system and eliminate flooding. Development in the northern area of the Specific Plan area, north of the Demeter Street terminus, and additional drainage from the new Bay Road Pump Station worsen flooding significantly. Impacts of over 0.5 foot are found in the neighborhoods draining to the channel to O'Connor Pump Station (refer to Figure A-27 in Appendix G Utility Impact Study). Smaller impacts of approximately 0.1 foot would occur as far west as the Euclid Avenue Pipe in Runnymede Street, which is a significant path for drainage from all areas of East Palo Alto which flow to the O'Connor Pump Station. Added drainage to the system has the effect of raising the hydraulic grade line along that path and increasing flood depths throughout the City.

The Runnymede Pump Station would be located at the east end of Runnymede Street and would discharge to the San Francisco Bay. The pump station would also improve the function of the existing stormwater system in Runnymede and the use of existing pipe capacity. The Runnymede Pump Station would also improve flooding throughout the East Palo Alto storm drain system. With the above improvements, the City's storm drainage system would adequately serve the Specific Plan area and would not result flooding. Future developers will make a fair share contribution toward the storm drainage improvements. The timing of the required improvements will be reviewed by the City prior to issuance of permits for future development of properties within the Plan area.

The amount of impervious surfaces would increase with the Specific Plan Update, compared to the existing conditions. Scenarios 1 and 2 would have a similar amount of impervious surfaces and

would generate a similar amount of stormwater runoff. The loop road which includes a multi-use path, would add more impervious surfaces due to the increased width of pavement than the option that includes the multi-use path without the loop road.

Future projects under the Specific Plan Update will implement the following proposed Specific Plan Update Policy.

Proposed Specific Plan Update Policy:

- **Policy UTIL-1.6:** Ensure that the future storm water system in the Plan Area is designed and built to provide adequate capacity for peak rain events, including both the southern and northern parts of the Plan Area, as well as the University Village neighborhood. functionality of existing storm water infrastructure.

Consistent with Specific Plan Policy UTIL-1.6, the City would ensure stormwater systems are adequate to manage peak rain events within the northern and southern portions of the Specific Plan areas.¹²⁵ The CIPs needed to improve the storm drain system within the Specific Plan area, once sufficiently designed to allow for meaningful project-level CEQA analysis, would be subject to separate environmental review as plans are developed and any significant environmental impacts mitigated to the extent feasible. **(Less than Significant Impact)**

Electricity, Natural Gas, and Telecommunications

The 2013 Specific Plan EIR did not include an analysis of impacts associated with the construction of new or relocated electricity, natural gas, or telecommunications facilities associated with buildout of the Specific Plan.

Existing natural gas, electricity, and telecommunications utility infrastructure would continue to serve future development under the Specific Plan Update. Future development under the Specific Plan Update would be subject to subsequent environmental review to confirm if all site-specific and project-specific impacts were evaluated in this SEIR, including the need for new or expanded infrastructure for natural gas, electricity, and telecommunications. In the event additional electrical or telecommunication infrastructure is identified as needed during environmental review for future development, the construction-related impacts would be less than significant in conformance with regulations, including General Plan and Specific Plan policies, identified in Sections 3.3 Air Quality, 3.4 Biological Resources, 3.5 Cultural Resources, 3.7 Geology and Soils, 3.9 Hazards and Hazardous Materials, 3.10 Hydrology and Water Quality, and 3.13 Noise and Vibration.

¹²⁵ Policy UTIL-3.1: Ensure that the storm sewer system described in the 2008 Draft Engineering Plan (DEPLAN) for the Ravenswood Business District (RBD), or one that is functionally similar, is built. Policy UTIL-3.2: Ensure that the storm water system for the northern part of the Plan Area, including 391 Demeter and the University Village neighborhood, is designed in a coordinated manner to provide adequate capacity for peak rain events, and maintain functionality of existing storm water infrastructure.

Implementation of the Specific Plan Update would include undergrounding of existing power lines. The construction-related impacts of undergrounding existing overhead power lines would also be less than significant in conformance with the regulations mentioned above. Thus, implementation of the Specific Plan Update would not result in a significant environmental effect from the construction or relocation of natural gas, electricity, or telecommunication utilities.

(Less than Significant Impact)

-
- b) Would the project have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
-

The 2013 Specific Plan EIR concluded that buildout of the Specific Plan would increase water demand in the City by 820-acre-feet annually (or 267 million gallons per year, MGY) and the City’s existing water supplies are not sufficient to meet this demand in normal or drought years. However, implementation of Specific Plan Policy UTIL-2.1 and 2.2, which prevent development from occurring within the Specific Plan area until new water supplies are obtained and require separate CEQA analysis of the environmental effects of obtaining new water supplies, would reduce this impact to a less than significant level.

The total water demand projected was estimated for Specific Plan Update buildout, under Scenarios 1 and 2, using the City’s water demand factors (refer to Table 2-1 of Appendix G Utility Impact Study). The existing 2013 Specific Plan, and estimated increase in demands from the Specific Plan Update buildout are included in Table 3.18-2.

Table 3.18-2: Specific Plan Water Demand		
2013 Specific Plan (gallons per day)	Development Scenario 1 (gallons per day)	Development Scenario 2 (gallons per day)
381,792	854,937	1,110,790

The Specific Plan Update would create an increase of approximately 473,145 gallons per day of water demand for Scenario 1 and 728,998 gallons per day of water demand over demands assumed for the 2013 Specific Plan. Buildout of Scenario 1 would more than double the water demand and Scenario 2 would be almost three times compared to the 2013 Specific Plan. These estimates are conservative as they do not account for on-site water conservation efforts such as landscaping with low water use plants.

The City of East Palo Alto’s water service has sufficient existing water supply to adequately serve and support the Specific Plan and other reasonably foreseeable growth based on General Plan buildout under normal years. The SFPUC would provide 99 percent of the City’s water supply and approximately one percent of the supply would come from groundwater wells in future years. During a normal dry year, the SFPUC will provide the City up to 3.46 mgd (1,264 mgy) of potable

water and 7.0 mgd of potable water would come from local groundwater through 2040. The City's cumulative potable water demand (which includes the 2013 Specific Plan buildout) would be 927 mgd in 2040 (which was accounted for in the 2020 UWMP) and the Specific Plan Update buildout (development scenario 2) would increase this cumulative demand amount by 100 mgd, resulting in a total potable water demand of 1,027 mgd for the City. Thus, there would be sufficient water supply (1,264 mgd) to serve the City including the Specific Plan Update buildout (for both development scenarios).

In the single dry and multiple dry water years, the City would not have sufficient capacity to meet the anticipated cumulative demands based on General Plan buildout, including the Specific Plan Update under both scenarios. The City is projected to experience supply shortfalls under single dry-year conditions and multiple dry-year conditions due to anticipated water supply shortfalls from the SFPUC. The deficit between potable supply and cumulative demand during a single dry year is estimated to be between 44 and 51 percent with the Specific Plan Update, depending on the scenario. This is greater than the expected deficit without the Specific Plan Update which ranges from 36 to 46 percent based on the 2020 UWMP. This deficit is primarily due to the adoption of the Bay Delta Plan Amendment, which is projected to reduce supplies to East Palo Alto (and other local agencies) up to 54 percent if the Bay Delta Plan Amendment is implemented. Shortfalls of up to 58 percent are projected for single dry- and for multiple dry-years assuming the Bay Delta Plan Amendment is implemented. In all future multiple dry years, projected water demands exceed the available potable supply by between 44 percent and 58 percent of the total City potable water demand, depending on the Specific Plan Update scenario. This is greater than the expected deficit without the Specific Plan Update, i.e. buildout of the General Plan Update growth, including the 2013 Specific Plan, which deficit ranges from 36 to 54 percent based on the 2020 UWMP).

However, the City would implement the staged Water Shortage Contingency Plan described in the 2020 UWMP, which includes a mix of voluntary and mandatory rationing actions. Levels 1 through 5 of the Contingency Plan can mitigate shortfalls of up to 50 percent. Level 6 can mitigate shortfalls above 50 percent.

- Stage 1 of the Contingency Plan requires a demand reduction of up to five percent through increased public education and outreach, mandatory shut-off valves, immediate repairs of broken and defective water systems, covering of recreational water, and reduction of water use for landscaping and cleaning to reduce water use.
- Stage 2 requires a demand reduction of up to 15 percent through several mandatory water use restrictions and requirements, such as limiting landscape irrigation to two days per week at off-peak times.
- Stage 3 requires a reduction in water demand of up to 25 percent through enforcement such as limiting landscape irrigation to one day per week during off-peak hours.
- Stage 4 requires a water demand reduction of greater than 35 percent by restricting all outdoor irrigation and additional, prohibiting all recreational water use, and reducing water not required for public health and safety and fire protection.

- Stage 5 requires a demand reduction of greater than 45 percent by restricting water use above an established water budget for each customer.
- Stage 6 requires a demand reduction of greater than 55 percent by restricting water uses above and beyond the requirements outlined in the previous stages.

The implementation of these Water Shortage Contingency Plan measures would result in water supply sufficient for the Specific Plan Buildout water demands in single- and multiple dry-years.

Future projects developed under the Specific Plan Update would comply with the City’s UWMP, General Plan policies, and East Palo Alto Municipal Code 13.24 (which requires future projects to prepare a landscape and irrigation plan prior to the issuance of a building permit) related to water conservation. Additionally, future development projects would comply with the Specific Plan Update policies pertaining to water conservation including the proposed Specific Plan Update Policy UTIL-3.4, below.

Proposed Specific Plan Update Policy

- **Policy UTIL-3.4:** Ensure that new development in the Specific Plan area complies with the City’s Water Conservation and Landscaping Ordinance and maximizes the use of features such as permeable paving, roof catchment systems, irrigated landscaping, or other means to enhance on-site infiltration of runoff or landscape irrigation water.

The WSA prepared for the Specific Plan Update concluded that, while the Specific Plan Update (development scenarios 1 and 2) would result in an increase in water demand within the City of East Palo Alto, the City’s water supply contract with the SFPUC and local groundwater would meet the City’s projected cumulative water demand and the Specific Plan Update’s water demands under normal years. As described in the WSA, the City’s available potable and non-potable water supplies are expected to be sufficient to meet demands of existing uses and future uses under normal conditions. Under dry and multiple-dry years, the City would need to impose water conservation measures, through execution of water contingency shortage plans, to reduce demand. Therefore, there would be sufficient water supply available to serve buildout of the Specific Plan Update.

(Less than Significant Impact)

-
- c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?
-

The 2013 Specific Plan EIR concluded buildout of the Specific Plan would not result in a determination by a wastewater treatment provider that it does not have adequate capacity to serve the project’s projected demand in addition to existing commitments because the PARWQCP has sufficient capacity to serve the community for 30 years without the need for expansion.

The City’s wastewater flow under existing conditions plus Specific Plan Update buildout (for development scenarios 1 and 2) was evaluated and compared to the PARWQCP treatment capacity allocated for the City. Sewage generated within the City and collected by EPASD is treated at the PARWQCP in Palo Alto. Table 3.18-3 shows the City’s projected flows based on Average Dry Weather Flow and Average Annual Flow (defined as 1.05 times Average Dry Weather Flow) The contractual treatment capacity is based upon the EPASD and PARWQCP Joint Sewer System agreement that is based upon Average Annual Flow.

Table 3.18-3: Wastewater Treatment Capacity (MGD)				
PARWQCP Joint Facility	East Palo Alto Contractual Capacity	Existing Treatment Demands	Specific Plan Update Buildout plus Existing Treatment Demands	
Treatment Capacity (millions of gallons per year, Average Dry Weather Flow)	2.89	1.53	2.17 ¹	2.35 ²
Treatment Capacity (millions of gallons per year, Average Annual Flow)	3.06	1.62	2.30 ¹	2.49 ²
¹ Development scenario 1 adds 0.64 mgd for average dry weather flow; adds 0.80 mgd for average annual flow ² Development scenario 2 adds 0.82 mgd for average dry weather flow; adds 0.87 mgd for average annual flow Source: Schaaf & Wheeler. <i>Ravenswood Business District Specific Plan Update Utility Impact Study</i> . June 2024.				

Based on the results in Table 3.18-3, the buildout of the Specific Plan Update under development Scenario 1 would add 0.64 mgd and under Scenario 2 would add 0.80 mgd of wastewater flow (average dry weather flow) or 0.82 mgd for Scenario 1 and 0.87 mgd for Scenario 2 in average annual flow to the PARWQCP compared to existing conditions. Implementation of the Specific Plan Update (for development scenarios 1 and 2) plus existing conditions wastewater flows would be below the City’s contractual treatment capacity at the PARWQCP’s . As a result, there would be sufficient treatment capacity at the PARWQCP to serve the Specific Plan Update buildout (for both development scenarios) and existing treatment demands.

(Less than Significant Impact)

-
- d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
-

The 2013 Specific Plan EIR concluded that buildout of the Specific Plan would not generate solid waste in excess of capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals because the City's waste accounts for approximately 2.3 percent of the waste disposal at Ox Mountain Landfill which had capacity until 2028, and future development would be required to reduce per capita waste disposal volumes consistent with General Plan. The implementation of the 2013 Specific Plan would result in a solid waste generation of 2,424 tons (3,175 cubic yards) per year.

Implementation of the Specific Plan Update is estimated to generate approximately 3,702 tons (13,697 cubic yards) of solid waste per year for development scenario 1 and 4,226 tons (15,636 cubic yards) for development scenario 2, which is a net increase of 1,278 tons (Scenario 1) and 1,802 tons compared to buildout of the 2013 Specific Plan, and 2,814 tons (10,412 cubic yards, scenario 1) and 3,338 tons (12,351 cubic yards, scenario 2) compared to existing uses.¹²⁶ In accordance with SB 1383, the City has a waste reduction goal to divert 75 percent of solid waste out of the landfills by 2025. The City's General Plan Policy ISF-4.4 Construction Waste requires future development projects under the proposed Specific Plan Update would divert 80 percent of its construction waste away from landfills. The City's contract with Recology of San Mateo County (Recology) for solid waste disposal is through December 31, 2035. Therefore, the Specific Plan Update buildout (under both development scenarios, with and without the loop road) would be consistent with the waste diversion requirements under state law or the City's General Plan Policy ISF-4.4.

Given the project's estimated net increase in solid waste generation (and Ox Mountain Landfill's remaining capacity of 15.7 million cubic yards), Ox Mountain Landfill has sufficient capacity to accommodate the Specific Plan Update's solid waste disposal needs. When the City's current contract with Recology terminates in 2035, the City could choose to extend its contract with Recology or contract with a different hauler. There are local landfills with projected capacity, including Ox Mountain Landfill, that could accommodate buildout of the Specific Plan Update post 2035. Therefore, future developments in the Specific Plan area would not result in a substantial increase in waste landfilled at Ox Mountain or be served by a landfill without sufficient capacity. Compliance with the SB 1383 goals and General Plan Policy ISF-4.4 Construction Waste related to solid waste would further ensure that implementation of the Specific Plan Update does not conflict with state and federal solid waste regulations and statutes.

(Less than Significant Impact)

¹²⁶ Illingworth & Rodkin, Inc. *Ravenwood Specific Plan Update Air Quality/GHG Analysis*. May 2024. Attachment 2.

-
- e) Would the project be noncompliant with federal, state, or local management and reduction statutes and regulations related to solid waste?
-

The 2013 Specific Plan EIR concluded that future development allowed under the Specific Plan would be subject to existing Municipal Code and General Plan policies which would ensure compliance with existing federal, state, and local statutes and regulations pertaining to solid waste.

Future projects under the Specific Plan Update would comply with the SB 1383 goals and General Plan Policy ISF-4.4 to reduce waste, as future projects would meet the waste reduction goal to divert 75 percent of solid waste out of the landfills and the goal to divert 80 percent of construction waste away from landfills. . Consistent with the conclusions of the 2013 Specific Plan EIR, future developments under the Specific Plan Update would be compliant with applicable regulations related to solid waste.

(Less than Significant Impact)

3.18.2.2 *Cumulative Impacts*

Would the project result in a cumulatively considerable contribution to a cumulatively significant utilities and service systems impact?

Water Supply and Demand

The geographic area for cumulative water supply impacts is the City's service area. As described under Impact UTL-2, the WSA evaluated cumulative water demand over a 20 year period, and concluded that the City would have sufficient water supply to serve buildout of the Specific Plan Update (development scenarios 1 and 2) under normal years, and would reduce water demand enough to have sufficient supply in single dry and multiple dry years with implementation of water shortage contingency plans as necessary. Thus, buildout of the Specific Plan would not contribute to a cumulatively significant water supply impact. **(Less than Significant Cumulative Impact)**

Water System and Fire Flow

Water Storage

The geographic area for water storage capacity impacts is the City's service area. The cumulative impact, including buildout of the Specific Plan under both scenarios, to water storage is discussed under Impact UTL-1 and concluded to be less than significant.

(Less than Significant Cumulative Impact)

Hydraulic Conveyance and Fire Flow

The geographic area for cumulative hydraulic conveyance and fire flow impacts is the City's service area. Under cumulative conditions, it is assumed all CIPs recommended in the WMP are constructed. Consistent with Specific Plan Policy UTIL-2.1, project-level CEQA analysis for these CIPs shall be completed prior to installation and all potential significant environmental impacts mitigated to the extent feasible. The UIS concluded that under cumulative without the Specific Plan Update buildout and cumulative with the Specific Plan Update buildout (under either development scenario) conditions, the City's water system would meet minimum water pressure requirements for hydraulic conveyance and fire flows within the Specific Plan area. The water system would also meet the fire flow requirements within the Specific Plan area. These nodes show minimal (less than one percent) impact due to Specific Plan Update buildout (for both development scenarios). With the implementations CIPs identified in the 2022 WSMP, the City-wide system would have adequate pressures and would be able to meet the fire flow requirements within the Specific Plan area (with the buildout of the Specific Plan Update under cumulative conditions). The Specific Plan Update would not result in a cumulative impact to the City's water conveyance system.

(Less than Significant Cumulative Impact)

Sanitary Sewer System

In the cumulative condition, it is assumed all CIPs in the Sewer Master Plan Update and the additional CIPs identified in Impact UTL-1 (Bay Road CIP, Eastern Main Trunk CIP, and the Dual Trunk to RWQCP CIP) would be constructed. Under cumulative without Specific Plan conditions, the UIS concluded that the wastewater system would contain no deficiencies; however, under cumulative with Specific Plan conditions (under either development scenario), the wastewater system would require an additional CIP and pipe upgrades. Under either development scenario, the In-Tract CIP would be required. Under Scenario 1, an additional 3,648 feet of piping would be required to be upgraded. Under Scenario 2, 17 of the previously identified pipe segments above (Bay Road CIP, Eastern Main Trunk CIP, and the Dual Trunk to RWQCP CIP) would need to be larger and an additional 4,050 feet of piping would be required to be upgraded (see Table 5-5 of Appendix G for details). With these improvements, there would be sufficient capacity to convey the increased wastewater generated by the project under cumulative with Specific Plan Update conditions (under either development scenario). Future developers will pay a fair share contribution toward these improvements. Future project-level CEQA analysis for these CIPs, including the additional CIPs identified in the Utility Impact Study (Appendix G), shall be completed prior to installation and all potential significant environmental impacts mitigated to the extent feasible. The Specific Plan Update would result in a less than significant cumulative impact to the sanitary sewer system.

(Less than Significant Cumulative Impact)

Stormwater System

Under cumulative conditions, the same CIPs identified under Impact UTL-1 above, would be required to be constructed in order to convey stormwater from the Specific Plan area. As discussed under Impact UTL-1, future development under the Specific Plan would comply with Specific Plan Policies UTIL-3.1 and UTIL-3.2 and ensure stormwater systems are adequate to manage peak rain events within the northern and southern portions of the Specific Plan areas.¹²⁷ The CIPs needed to improve the storm drain system within the Specific Plan area would be subject to separate environmental review as plans are developed and any significant environmental impacts mitigated to the extent feasible. Based on the above discussion, the project (under either development scenario) would not result in a significant cumulative impact. **(Less than Significant Cumulative Impact)**

Wastewater Treatment Capacity

The 2013 Specific Plan EIR concluded that cumulative impacts related to wastewater treatment capacity would be less than significant because EPASD accounted for Specific Plan wastewater contributions in their long-term planning and the Specific Plan would implement Policy UTIL-1.2.¹²⁸

The total system-wide wastewater treatment capacity for East Palo Alto was evaluated under future cumulative conditions with and without Specific Plan Update buildout under both scenarios. Table 3.18-4 shows the City's projected flows compared to the PARWQCP Joint Facilities capacity, based on Average Dry Weather Flow.

¹²⁷ Policy UTIL-3.1: Ensure that the storm sewer system described in the 2008 Draft Engineering Plan (DEPLAN) for the Ravenswood Business District (RBD), or one that is functionally similar, is built. Policy UTIL-3.2: Ensure that a storm water system for the northern part of the Plan Area, including 391 Demeter and the University Village neighborhood, are designed in a coordinated manner to provide adequate capacity for peak rain events, and maintain functionality of existing storm water infrastructure.

¹²⁸ Policy UTIL-1.2: Work with EPASD to ensure that additional wastewater treatment capacity is available as development occurs under the Specific Plan.

Table 3.18-4: Cumulative Wastewater Treatment Capacity (MGD)							
PARWQCP Joint Facility	East Palo Alto Contractual Capacity (mgd)	Existing Treatment Demand (mgd)	Future Cumulative (General Plan Buildout, includes 2013 Specific Plan) (mgd)	Specific Plan Update plus Existing Treatment Demands (mgd)		Future Cumulative Conditions (includes Specific Plan Update plus General Plan Buildout) (mgd)	
Treatment Capacity Average Dry Weather Flow	2.89	1.53	2.63	2.17 ¹	2.35 ²	2.96 ¹	3.14 ²
Treatment Capacity Average Annual Flow	3.06	1.62	2.79	2.30 ¹	2.49 ²	3.13 ¹	3.33 ²
¹ Development scenario 1 adds 0.64 mgd for average dry weather flow; adds 0.80 mgd for average annual flow ² Development scenario 2 adds 0.82 mgd for average dry weather flow; adds 0.87 mgd for average annual flow Source: Schaaf & Wheeler. <i>Ravenswood Business District Specific Plan Update Utility Impact Study</i> . June 2024.							

Buildout of the Specific Plan Update plus existing conditions would result in an increase of 0.64 mgd (Scenario 1) and 0.82 mgd (Scenario 2) average dry weather flow and 0.82 mgd (Scenario 1) and 0.87 mgd (Scenario 2) average annual flow in wastewater compared to existing conditions without the Specific Plan Update buildout. Under cumulative conditions which includes General Plan buildout, including the 2013 Specific Plan (which generates approximately 0.31 mgd, and not including the Specific Plan Update buildout), the wastewater flow to the PARWQCP would be 2.63 mgd for average dry weather flow and 2.79 for average annual flow, within the contractual capacity of 2.89 average dry weather flow and 3.06 mgd average annual flow.

Buildout of the Specific Plan Update plus cumulative conditions would result in a 1.43 mgd increase in wastewater flow with the buildout of Scenario 1, and 1.61 mgd with the Scenario 2 buildout for average dry weather flow and a 1.51 mgd increase for Scenario 1 and 1.71 mgd for Scenario 2 in average annual flow. The wastewater flow for average dry weather flow under future cumulative conditions, General Plan buildout and Specific Plan Update buildout, would be 2.96 mgd (Scenario 1) and 3.14 mgd (Scenario 2), which would exceed the existing contractual capacity. The wastewater flow for average annual flow under future cumulative conditions, General Plan buildout

and Specific Plan Update buildout, would be 3.13 mgd for Scenario 1 and 3.33 mgd for Scenario 2 , which would exceed contractual capacity. Buildout of the Specific Plan Update under cumulative conditions would contribute 45 percent (development scenario 1) toward the increase and 52 percent (development scenario 2) toward the increase over existing conditions. Buildout of the Specific Plan Update would exceed the current contractual wastewater treatment capacity available to the City (under both development scenarios).

The fact that cumulative development within East Palo Alto, considering General Plan buildout and both Specific Plan Update scenarios, could generate wastewater that exceeds the existing contractual capacity available to the City is not an indication of an environmental impact per se, but rather a potential future infrastructure constraint on the feasibility of implementing the Specific Plan Update, as the City would not issue entitlements for individual projects that would exceed the available contractual treatment capacity. This means absent some change in the contractual capacity available to East Palo Alto, the cumulative growth identified above could not be entitled due to a lack of available treatment capacity.

The PARWQCP wastewater treatment facilities are owned and operated by another public agency (i.e. Palo Alto). The PARWQCP has a wastewater treatment capacity of 39 mgd, in average dry weather flow.¹²⁹ If unused capacity that is allocated to other contributing agencies was available in the future, the City will attempt to purchase that capacity to allow for cumulative growth, including within the Specific Plan, for which current contractual capacity does not exist. In the event that unused capacity was not available in the future for purchase, the City would be dependent on expansion or modification of the PARWQCP, the details of which would be determined by the City of Palo Alto as lead agency, and the environmental impacts that might result from such expansion or modification cannot be determined by East Palo Alto in the context of this EIR.

As noted above, that lack of current contractual capacity for cumulative wastewater treatment is a potential infrastructure constraint for full implementation of the Specific Plan Update and build out of the General Plan, but it does not represent a direct or reasonably foreseeable indirect significant environmental impact, as whether or how the PARWQCP would be expanded or modified in the future by the City of Palo Alto, and what environmental impacts would result, are currently unknown.

To ensure no development occurs without sufficient treatment capacity at the PARWQCP, future projects under the Specific Plan Update would be required to comply with the following Specific Plan Update Policy .

¹²⁹ San Francisco Bay Regional Water Quality Control Board. Palo Alto Regional Water Quality Control Plant and Wastewater Collection System. Order No. R2-2019-0015, NPDES No. CA0037834. 2019-2024 permit.

Proposed Specific Plan Update Policy

- **Policy UTIL-2.3:** Future project applicants under the Specific Plan Update shall work with the City or the sanitary sewer provider to ensure that adequate wastewater treatment capacity is available.

In addition, based on an Agreement the City has in place with the EPASD, once the City exceeds 80 percent of the allocated treatment capacity at the PARWQCP, an engineering study shall be prepared which will redefine the anticipated future needs of the treatment plant. Future project developers will provide a fair share contribution towards the preparation of the engineering study. Future project applicants under the Specific Plan Update will be required to work with the City and the EPASD to ensure there is sufficient wastewater treatment capacity and the City would need to find, based on substantial evidence, that adequate treatment capacity exists at the time individual projects are entitled. **(Less than Significant Cumulative Impact)**

Solid Waste

The 2013 Specific Plan EIR concluded that cumulative impacts related to solid waste would be less than significant because cumulative solid waste generated within the collection area for Ox Mountain Landfill has been accounted for in long-term planning and it was determined that there is sufficient capacity at the Ox Mountain Landfill until 2028.

The geographic area for cumulative solid waste impacts is the County of San Mateo. The 2016 General Plan EIR stated the Ox Mountain Landfill Facility had sufficient capacity to accommodate waste materials for the next 20 years (under December 31, 2035). The Specific Plan Update would add annually 2,814 tons (10,412 cubic yards, scenario 1) and 3,338 tons (12,351 cubic yards, scenario 2) of solid waste not accounted for in the General Plan. The City of East Palo Alto accounts for two percent of the waste received at Ox Mountain Landfill per year. Given the remaining capacity at Ox Mountain Landfill (15,741,826 cubic yards) and available capacity at other local landfills, there is sufficient landfill capacity to serve the cumulative projects (including the proposed Specific Plan Update buildout). Compliance with SB 1383 and General Plan policies related to solid waste would ensure that cumulative projects including the Specific Plan Update does not conflict with state and federal solid waste regulations and statutes. For these reasons, the cumulative projects (including the proposed Specific Plan Update) would not result in a significant cumulative solid waste impact.

(Less than Significant Cumulative Impact)

Section 4.0 Growth-Inducing Impacts

Would the project foster or stimulate significant economic or population growth in the surrounding environment?

The CEQA Guidelines require that an EIR identify the likelihood that a proposed project could “foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment” (Section 15126.2[d]). As stated in the CEQA Guidelines, a project is considered growth-inducing if it would:

- Directly or indirectly foster economic or population growth, or the construction of additional housing in the surrounding environment.
- Remove obstacles to population growth or tax community service facilities to the extent that the construction of new facilities would be necessary.
- Encourage or facilitate other activities that would cause significant environmental effects.

This section of the SEIR is intended to evaluate the impacts of such growth in the surrounding environment. Examples of projects likely to have significant growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or industrial parks in areas that are currently only sparsely developed or are undeveloped.

The 2013 Specific Plan EIR concluded the 2013 Specific Plan could generate demand for jobs outside the area which could have growth-inducing effect in other areas of the city (outside the Specific Plan area) or nearby cities. However, given the 2013 Specific Plan would result in mixed-use infill development within the Specific Plan area, it was concluded the Specific Plan area could absorb any demand for additional employment opportunities, and this effect would not be significant. The 2013 Specific Plan EIR concluded the Specific Plan would not result in significant growth-inducing impacts.

The Specific Plan Update is not intended specifically to generate new growth, but rather to allow the City of East Palo Alto to direct or provide opportunity for regionally projected population and job growth to occur in an area of the City that is for the most part already developed and served with infrastructure. The Specific Plan Update would result in direct economic growth because the proposed uses allowed include new employment and other land uses that generate tax revenues for public services.

The existing Specific Plan area has 350 residential units, 125,000 square feet of office space, 125,000 square feet of industrial space, 75,000 square feet of civic/community space, 25,000 square feet of tenant amenity space, and 200,000 square feet of retail space.

The 2013 Specific Plan would allow up to 1.4 million square feet of office/R&D space,¹³⁰ 176,000 square feet of industrial space, 112,400 square feet of retail, and 36,000 square feet of civic/community space.¹³¹ The Specific Plan Update would allow 2.8 million square feet of office and R&D, 250,000 square feet of light industrial, 112,400 square feet of retail, 129,700 square feet of civic/community space,¹³² and 43,870 square feet of tenant amenity space would be allowed under Scenario 1 and 3.3 million of office and R&D, 300,000 square feet of light industrial, 53,500 square feet of tenant amenity space, and the same additional square footage for retail and civic/community space as Scenario 1, under Scenario 2. The current allowed development within the Specific Plan area does not allow the same density as the proposed development, which, if the proposed growth were not to occur in the Specific Plan area, would likely result in increased growth pressure elsewhere in the City, outlying areas, or in surrounding communities. In this aspect, the Specific Plan Update could reduce the pressure for growth in other locations.

The Specific Plan Update, Scenario 1 would result in a net increase in 1,250 households, approximately 4,190 residents, and 9,645 jobs when compared to existing conditions (and considering the existing conditions to be redevelopment). Scenario 2 would result in a net increase of 1,500 households, approximately 5,015 residents, and 11,340 jobs.

Compared to existing conditions, the Specific Plan Update would allow for substantial growth. The direct impacts of this growth are discussed throughout this SEIR. While the Specific Plan Update is intended to provide a more balanced development with jobs and housing, the Specific Plan Update would not have an equal amount of new housing to serve the net new jobs generated from implementation of the Specific Plan Update. For this reason, additional housing development would likely occur outside of the Specific Plan area.

Opportunity sites for new housing within the City in and outside of the Specific Plan area are identified in the City's 2023-2031 Housing Element adopted in March 2024. Also, given the proximity of other cities to Specific Plan area, potential new workers could choose to live outside the City of East Palo Alto. Suitable or likely locations for new housing were identified in these jurisdictions based on their respective General Plans (including Housing Elements) and Specific Plan documents and are intended to reflect long-term increases in housing development already anticipated in those communities. Such other projects would undergo their own environmental review under CEQA at the time they are proposed. As discussed in Section 3.13 Population and Housing, the amount of growth that the Specific Plan Update would accommodate is consistent with the growth projected for the City and South San Mateo County.

Updated regional growth projections are provided in Plan Bay Area 2050. However, population projections and projections at the city-level are not provided in Plan Bay Area 2050. The updated Plan Bay Area 2050 projections for the South San Mateo County area (which includes the City of

¹³⁰ 32,650 square foot Ravenswood Health Center (office) has been subtracted from allowed office development all scenarios since it has been constructed and in operation since 2015 (under the 2013 Specific Plan).

¹³¹ The 25,000 square foot EPACenter (civic) was subtracted from the allowed development given it has been constructed and in operation since 2022 (under the 2013 Specific Plan).

¹³² Ibid.

East Palo Alto, Atherton, Menlo Park, Redwood City, Woodside, Portola Valley, and San Carlos) estimate a total of 106,000 households and 196,000 jobs by 2050. Of the growth projected for the South San Mateo County area in 2050, the net growth associated with the Specific Plan Update represents one percent of the projected 106,000 households and five percent of the projected 196,000 jobs for Scenario 1, and one and one-half percent of projected households and five percent of projected jobs for Scenario 2. In general, growth is estimated to continue and the amount of development that would result from the Specific Plan Update reflects and accommodates that projected growth. The Specific Plan Update is consistent with Plan Bay Area 2050 by:

- Proposing mixed-use residential development
- Providing affordable housing options;
- Creating additional employment opportunities within the City and regionally;
- Conserving natural resources and contributing additional parks/open space and recreation areas within the City; and
- Increasing connectivity by improving transportation infrastructure.

The beneficial effects of directing projected growth to the Specific Plan area include proactively planning a more sustainable community, developing previously developed land, developing within the existing urban service area, taking advantage of existing infrastructure including transit infrastructure, improving multi-modal transportation infrastructure, and providing housing to address the City's fair-share housing allocation requirements. The development of dense residential and mixed-use districts, as proposed by the Specific Plan Update, is a more sustainable approach for accommodating a projected growth and reducing sprawl, resulting in beneficial effects on both local and regional levels. The Specific Plan Update (Scenarios 1 and 2, with and without the loop road) includes infrastructure improvements to specifically serve the buildout of the Specific Plan Update. The possible loop road would provide access to the Specific Plan area and would not induce substantial population growth. The Specific Plan Update does not include improvements that would remove obstacles to population growth or accommodate more development than what is proposed. For these reasons, the Specific Plan Update would not foster or stimulate significant, unplanned economic or population growth in the surrounding environment.

(Less than Significant Impact)

Section 5.0 Significant and Irreversible Environmental Changes

Section 15126.2(c) of the CEQA Guidelines requires a discussion of the significant irreversible changes that would result from implementation of a proposed project. Potential significant irreversible changes include the (1) irreversible use of nonrenewable resources, (2) commitment of future generations to similar use, (3) irreversible damage resulting from environmental accidents associated with the project and (4) irretrievable commitments of resources.

5.1 Use of Nonrenewable Resources and Irretrievable Commitments of Nonrenewable Resources

Implementation of the Specific Plan Update (Scenarios 1 and 2, including the multi-use path, with and without the loop road) would involve construction and operational activities that require the use and consumption of nonrenewable resources, including fossil fuels and metals, which cannot be generated over time. Renewable resources, such as lumber and other wood byproducts, could also be used.

As discussed in Section 3.6 Energy, energy would be consumed during both the construction and operational phases of future Specific Plan Update development. The construction phases of future development would require the use of nonrenewable construction material, such as concrete, metals, plastics, and glass. Nonrenewable resources and energy would also be consumed for the manufacture and transport of building materials, preparation of sites (e.g., demolition of existing buildings and grading), and construction of the buildings, infrastructure, and other improvements. The operation of future uses could consume energy in the form of electricity and natural gas for building heating and cooling, lighting, water heating, and operation of appliances, electronic equipment, and commercial machinery. Energy, in the form of electricity (for charging of electric vehicles) and fossil fuel, would also be consumed during each vehicle trip associated with the future uses.

Implementation of the Specific Plan Update would result in a substantial increase in demand for nonrenewable resources; however, the Specific Plan Update promotes efficient energy use given its infill location, availability of existing infrastructure, high-density mix of uses, and colocation of housing and jobs. Future Specific Plan Update development would comply with all applicable regulations aimed to reduce energy consumption and promote energy efficiencies including CALGreen requirements (which requires construction and demolition recycling), Title 24 energy efficiency standards, and the City's Green Building Program requirements, Reach Code, and Construction and Demolition Waste Diversion goals.

5.2 Commitment of Future Generations to Similar Uses

The intensification of development and proposed mix of uses that would occur as a result of the Specific Plan Update would serve several purposes including increased use of underutilized land, greater diversity of complimentary uses in the area, increased housing in the City, improved infrastructure, and greater connectivity between the Specific Plan area and the surrounding communities.

Although implementation of the Specific Plan Update would commit future generations to more intense development in this area, these land uses at the proposed higher density would benefit the City and the region by providing a sustainably-developed and cohesively-planned community within an existing urban area.

5.3 Irreversible Damage from Environmental Accidents

Implementation of the Specific Plan Update would not include any new or uniquely hazardous uses, and operation of the future uses are not expected to cause environmental accidents. As discussed in Section 3.9 Hazards and Hazardous Materials, implementation of the Specific Plan Update in compliance with mitigation and existing regulations, and policies, (including General Plan policies and Specific Plan Update policies) would not substantially affect the public and surrounding environment. Nor would the implementation of the Specific Plan Update result in significant geology and soil hazards, with mitigation (refer to Section 3.7 Geology and Soils). For these reasons, the Specific Plan Update would not result in irreversible damage that may result from environmental accidents.

Section 6.0 Significant and Unavoidable Impacts

The analysis in the SEIR concluded that the implementation of the Specific Plan Update would result in significant and avoidable impacts as follows:

- **Impact AIR-2:** The Specific Plan Update would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard. **(Significant and Unavoidable Impact)**
- **Impact AIR-C:** The project would result in a cumulatively considerable contribution to a significant cumulative air quality impact. **(Significant and Unavoidable Cumulative Impact)**
- **Impact GHG-1:** The project would generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Significant and Unavoidable Impact)**
- **Impact GHG-2:** The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. **(Significant and Unavoidable Impact)**
- **Impact GHG-C:** The project would result in a cumulatively considerable contribution to a significant cumulative GHG emissions impact. **(Significant and Unavoidable Cumulative Impact)**
- **Impact NOI-1:** The project would 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. The Specific Plan Update buildout would result in an increase of three dBA CNEL at two roadway segments on Bay Road **(Significant and Unavoidable Cumulative Impact)**
- **Impact NOI-C:** The project would result in a cumulatively considerable contribution to a cumulatively significant noise impact. The Specific Plan Update buildout would result in an increase of three dBA CNEL at two roadway segments on Bay Road **(Significant and Unavoidable Cumulative Impact)**

Section 7.0 Alternatives

7.1 Introduction

CEQA requires that an EIR identify alternatives to a project as it is proposed. The CEQA Guidelines specify that the EIR should identify alternatives which “would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project.” The purpose of the alternatives discussion is to determine whether there are alternatives of design, scope, or location which would substantially lessen the significant impacts, even if those alternatives “impede to some degree the attainment of the project objectives” or are more expensive (CEQA Guidelines Section 15126.6).

In order to comply with the purposes of CEQA, it is important to identify alternatives that reduce the significant impacts anticipated to occur if the project is implemented and try to meet as many of the project’s objectives as possible. The Guidelines emphasize a commonsense approach – the alternatives should be reasonable, “foster informed decision making and public participation,” and focus on alternatives that avoid or substantially lessen the significant impacts. The range of alternatives selected for analysis is governed by the “rule of reason,” which requires the SEIR to discuss only those alternatives necessary to permit a reasoned choice. An EIR is not required to consider alternatives which are infeasible. Rather, the EIR must only set forth a number of alternatives that permit a reasoned choice and only examine in detail those alternatives the City has determined meets most of the objectives of the project.

The three critical factors to consider in selecting and evaluating alternatives are, therefore, the: (1) significant impacts from the proposed project which could be reduced or avoided by an alternative, (2) project objectives, and (3) feasibility of the alternatives available. These factors are discussed below.

7.2 Factors in Selecting and Evaluating Alternatives

7.2.1 Significant Impacts of the Project

As explained above, the CEQA Guidelines state that the alternatives analysis in an EIR should be limited to alternatives that would avoid or substantially lessen any of the significant effects of the project and achieve most of the basic project objectives. Section 6.0 above identifies the several significant and unavoidable impacts that would result from buildout of the Specific Plan, all of which result from operation of the planned development under both development scenarios. Table 7.3-2 at the conclusion of this section summarizes the impacts of the Specific Plan and the several Specific Plan Update alternatives presented below.

7.2.2 Project Objectives

While CEQA does not require that alternatives must be capable of meeting all of the project objectives, their ability to meet most of the basic objectives is considered relevant to their consideration. As identified in Section 2.4 Project Objectives, the City's objectives for the Specific Plan Update are as follows:

1. Blend office, R&D, industrial, retail, and residential uses together with public open space, amenities, and civic uses to create a complete neighborhood defined by increased diversity of activity, mobility choices, numerous high-quality parks, and vibrant community-serving spaces in the Specific Plan area.
2. Create smaller, more walkable blocks through the addition of publicly accessible streets, greenways, alleys, and multiuse pathways
3. Maintain key view corridors to the Bay through building setbacks, stepbacks, and linear greenway networks.
4. Evolve Bay Road into a series of vibrant, community-serving nodes that are lined with active business and civic spaces through the use of frontage design standards.
5. Improve circulation and mobility in the Plan area by increasing the interconnectedness of the network and increasing opportunities to access the Bay/waterfront. Promote walkability through wide sidewalks covered with tree canopy, buffered bicycle facilities on key public streets, and a welcoming network of open space.
6. Enhance pedestrian and bicycle connections to the surrounding region, light rail, services, housing, and employers, creating a range of new public spaces and transportation options.
7. Achieve a 40 percent or greater reduction in single-occupancy vehicle trips to and from the plan area through improvements to transit service such as a public shuttle system and a multimodal connection to the planned Willow Village rail station.
8. Respect the existing single-family neighborhoods by requiring careful height and massing transitions for new buildings adjacent to single-family houses. Buildings would be smallest adjacent to existing neighborhoods and designed to respect their scale and character.
9. Ensure that the local community benefits significantly from new development, and that new developments specifically prioritize those benefits identified by the City.
10. Expand economic opportunity for residents through workforce development that provide consistent access to both skilled jobs (trainings and internships, subsidized spaces for new businesses) and attainable living wage jobs (funding and space for local merchants, vocational classes, PDR/fabrication/makerspaces & light industrial spaces).
11. Seek to address the current jobs-housing imbalance and maximize production of affordable housing units in the Plan area through a minimum linkage ratio between new housing units and office space that requires office developers to pay an Affordable Housing Commercial Linkage Fee.
12. Minimize displacement of existing residents by expanding the availability of income-restricted rental housing (with a focus on very low and low incomes as is appropriate for East Palo Alto, and to a lesser extent moderate incomes) and through support from developers for home ownership programs and funds.

13. Support the City’s sustainability goals by promoting green buildings, aggressive water and energy conservation, and adherence to the City’s Reach Code standards.
14. Broaden the City’s tax base by attracting multiple large-scale commercial and/or industrial development projects.
15. Stabilize the City’s finances and fiscal health over the long term through a significant increase over time (as development occurs) in the value of property taxes, Measure HH taxes, and other revenues collected in the Specific Plan area.
16. Facilitate the construction of the maximum amount of (deed-restricted) affordable housing by subsidizing it with linked non-residential development, in order to lessen indirect displacement and meet Regional Housing Needs Allocation (RHNA) housing goals and the General Plan Housing Element.
17. Enable substantial improvements to the utility systems and other infrastructure in the Specific Plan area, by maximizing the amount of development that can fund these upgrades.

7.3 Selection of Alternatives

7.3.1 Alternatives Considered but Rejected for Further Analysis

The CEQA Guidelines encourage consideration of an alternative site when significant effects of the project might be avoided or substantially lessened (Section 15126.6(f)(2)(A)). Only locations that would avoid or substantially lessen any of the significant impacts of the project and meet most of the project objectives need to be considered for inclusion in the EIR.

A Location Alternative would need to be at least of comparable size and have the potential to accommodate similar uses as the Specific Plan area (approximately 207 acres) within the City of East Palo Alto. There are no alternative locations that are of similar size to the Ravenswood Plan area within the City. In addition, given that the main objective of the project is to establish an updated long-term strategy to guide future development in the Specific Plan area, it would not be feasible to evaluate an alternative location in the City. The Specific Plan Update must, by its nature, guide future development located in the Specific Plan area. CEQA Guidelines Section 15126.6(a) allows for consideration of alternative to a project, *or its location* (emphasis added), but does not mandate inclusion of a location alternative in an EIR. Accordingly, to evaluate another location for the Specific Plan area development would not be meaningful for the purposes of making a decision about the proposed project. The 2013 Specific Plan EIR did not evaluate a Location Alternative. Therefore, a Location Alternative is not discussed further in this SEIR.

7.3.2 Alternatives Selected

A discussion of the alternatives selected is provided below and a summary of the development assumed under the alternatives compared to the Specific Plan Update is shown in Table 7.3-1.

Table 7.3-1: Development Summary of Project and Alternatives Selected

	Land Use					Tenant Amenity (square footage)
	Residential (units)	Industrial (square footage)	Office/R&D (square footage)	Retail (square footage)	Civic/Comm. (square footage)	
Net Increase SPU Scenario #1	1,250 ^a	215,000 ^b	2,726,350 ^c	87,400 ^d	129,700 ^f	43,870
Net Increase SPU Scenario #2	1,500 ^e	265,000 ^e	3,237,350 ^e	87,400 ^e	129,700 ^f	53,500
Alternatives Selected						
No Project/ No New Development Alternative ^c	0	0	0	0	0	0
Net Increase No Project/Adopted 2013 Specific Plan Alternative	735 ^g	140,910 ^g	1,346,760 ^g	87,400 ^g	36,000 ^f	0
Net Increase Reduced Scale Alternative ^h	900	159,000	1,424,4100	52,440	77,820	32,100

Notes:

SPU = Specific Plan Update

Square feet = sf

^a SPU Scenario 1 residential units (1,350 units) – 100 units to be redeveloped = 1,250 resid. Units.

^b SPU Scenario 1 industrial (250,000 square feet) – 35,000 square feet industrial to be redeveloped = 215,000 square feet

^c SPU Scenario 1 office/R&D (2,824,000 sf) – 65,000 sf office to be redeveloped – 32,650 sf Ravenswood Health Center (built out) = 2,759,000 sf

^d SPU Scenario 1 retail (112,400 sf) – 25,000 sf to be redeveloped = 87,400 sf

^e SPU Scenario 2 includes increase – existing conditions to be redeveloped (same as SPU Scenario 1)

^f 25,000 square foot EPACenter (civic use) was constructed and in operation in 2022 under the 2013 Specific Plan.

^g 2013 Specific Plan sf/unit increase – existing conditions to be redeveloped (same as SPU Scenarios 1 and 2) - 32,650 sf Ravenswood Health Center (built out)

^h SPU Scenario #2 units/sf net increase – (SPU Scenario #2 units/sf net increase * 0.40) = 40 percent reduced development in units/sf

7.3.2.1 *No Projects Alternative*

The CEQA Guidelines specifically require consideration of a “No Project” Alternative. The purpose of including a No Project Alternative is to allow decision makers to compare the impacts of approving the project with the impacts of not approving the project. The Guidelines specifically advise that the No Project Alternative is “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.” The Guidelines emphasize that an EIR should take a practical approach, and not “...create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment (Section 15126.6[e][3][B]).”

In the discussion below two No Project Alternatives are analyzed: (1) a No Project/No New Development Alternative and (2) a No Project/Adopted 2013 Specific Plan Alternative. Under the first, the No Project/No Development Alternative, the Specific Plan area would remain as it is today (i.e., developed with a total of 125,000 square feet of office, 125,000 of light industrial, 200,000 square feet of retail, 75,000 square feet of civic/community, and 25,000 square feet of tenant amenity space). The No Project/Adopted 2013 Specific Plan Alternative assumes what would be reasonably expected to occur in the foreseeable future if the Specific Plan Update were not approved, based on current plans, i.e. the existing adopted 2013 Specific Plan is implemented. The No Project/Adopted 2013 Specific Plan Alternative would result in net new development of 735 units, 1,346,760 square feet of office/R&D space, 140,910 square feet of industrial space, 87,400 square feet of retail space, and 36,000 square feet of civic/community space. For these reasons,

7.3.2.2 *No Project/No New Development Alternative*

The No Project/No New Development Alternative assumes the Specific Plan area would remain as it is today (as described above and shown in Table 2.3-1).

Comparison of Environmental Impacts

Because the No Project/No New Development Alternative would not result in changes to existing conditions, this alternative would avoid all of the significant environmental impacts of the Specific Plan Update Scenarios 1 and 2 (with and without the loop road), presented above in Section 6.0. A summary comparison of the environmental impacts of the Specific Plan Update and the No Project/No New Development Alternative is provided in Table 7.3-2 below. This alternative would be environmentally superior to the proposed Specific Plan Update by maintaining baseline conditions within and near the Plan area.

Relationship to Project Objectives

In regard to the project objectives, the No Project/No New Development Alternative would:

- Partially meet Objective 1 as existing uses includes a mix of residential, office, R&D, retail, public open space and civic uses.

- Not meet Objective 2 since there would be no addition of publicly accessible streets greenways, alleys, or multi-use pathways.
- Meet Objective 3 as the existing view corridors of the San Francisco Bay would remain.
- Not meet Objective 4 since no changes to the Bay Road frontage would occur.
- Not meet Objectives 5 and 6 since improvements to the circulation and mobility or pedestrian and bicycle connections would not occur outside of what is included in the General Plan and the City's Bicycle Master Plan.
- Not meet Objective 7 since existing developments are not subject to the City's TDM Ordinance which requires a 40 percent reduction in vehicles trips.
- Partially meet Objective 8 since no new development would occur to impact single-family residences.
- Not meet Objective 9 since there would be no community benefits associated with new development added.
- Not meet Objective 10 since no new jobs would be added to expand economic opportunity for residents
- Not meet Objective 11 since existing developments are not subject to the Affordable Housing Commercial Linkage Fee program.
- Meet Objective 12 as no residents would be displaced.
- Not meet Objective 13 as existing development is not subject to the City's current green building, water/energy conservation, or Reach Code standards.
- Not meet Objective 14 as the existing development in the Specific Plan area does not consist of multiple large scale commercial and/or industrial projects.
- Not meet Objective 15 as long-term development would not occur.
- Not meet Objective 16 because no additional construction of housing would occur.
- Partially meet Objective 17 since existing CIPs for utility systems would be implemented.

Conclusion

The No Project/No New Development Alternative would avoid all of the environmental impacts of the Specific Plan Update (Scenarios 1 and 2, with and without the loop road). The No Project/No New Development Alternative would meet Objectives 3 and 12, partially meet Objectives 1, 8, and 17, and would not meet the other nine objectives (Objectives 2, 4, 5, 6, 7, 9, 10, 11 and 13).

7.3.2.3 *No Project/Adopted Specific Plan Alternative*

This alternative assumes the Specific Plan area would continue to be built out consistent with the adopted 2013 Specific Plan. The No Project/Adopted 2013 Specific Plan Alternative would result in a net increase of 735 residential units, 1,346,760 square feet of office/R&D space, 140,910 square feet of industrial space, 87,400 square feet of retail space, and 36,000 square feet of civic/community space. This alternative assumes there would be construction of the multi-use path with the loop road, as described in Section 2.3.4 of this SEIR. Compared to the Specific Plan Update Scenarios 1 and 2, the No Project/Adopted 2013 Specific Plan Alternative would include:

- 515 fewer residential units than the Specific Plan Update Scenario 1, and 715 fewer residential units than Scenario 2
- 1,379,650 less square feet of office /R&D space than Specific Plan Update Scenario 1, and 1,890,590 less square feet than Scenario 2
- The same amount of retail square footage as Specific Plan Update Scenarios 1 and 2
- 74,090 less square feet of industrial space than Specific Plan Update Scenario 1, and 124,090 less square feet than Scenario 2
- 93,700 less square of civic/community space than Specific Plan Update Scenarios 1 and 2
- No tenant amenity space resulting in 43,870 less square feet of tenant amenity space for Specific Plan Update Scenario 1, and 53,500 less square feet of tenant amenity space for Scenario 2.

Comparison of Environmental Impacts

A summary comparison of the environmental impacts of the Specific Plan Update and the No Project/Adopted 2013 Specific Plan Alternative is provided in Table 7.3-2 below.

The No Project/Adopted 2013 Specific Plan Alternative would result in less overall development than the Specific Plan Update, roughly half the overall amounts of development as Scenarios 1 and 2 (with and without the loop road). Lesser development equates to less overall light and glare from new development, less overall energy use, less overall construction and operational criteria air pollutant emissions, less overall GHG emissions being generated, less construction and project-generated traffic noise, less demand on public services (including recreational facilities), and less demand on utilities and service systems.

As shown in Tables 3.3-4 and 3.3-5, the Specific Plan Update Scenarios 1 and 2 operational criteria pollutant emissions, primarily from vehicle emissions, would exceed BAAQMD thresholds for ROG, NO_x, and PM₁₀, resulting in significant unavoidable impacts. The Adopted 2013 Specific Plan would result in reduced operational criteria pollutant emissions for PM₁₀, which would be below the BAAQMD threshold, avoiding the significant and unavoidable impact for this criteria pollutant, but not for ROG (which would result in an emissions of 109.49 pounds per day, exceeding the 54 pounds per day BAAQMD threshold) or NO_x (which would result in an emissions of 55.18 pounds per day), exceeding the BAAQMD threshold of 54 pounds per day. However, the operational ROG emissions for the 2013 Specific Plan is about 78 pounds per day less than emissions resulting from the Specific Plan Update Scenarios 1, and 107 pounds per day less than emissions resulting from Scenario 2. Operational NO_x emissions for the 2013 Specific Plan would be 37 pounds per day less than emissions from Scenario 1 and 50 pounds less per day than Scenario 2. The emissions for PM_{2.5} would be below BAAQMD thresholds for the 2013 Specific Plan and the Specific Plan Update. The No Project/Adopted 2013 Specific Plan Alternative would be environmentally superior due to substantially reduced operational criteria pollutant emissions compared to the two Specific Plan Update scenarios.

Although the 2013 Specific Plan would result in less overall operational GHG emissions (as shown in Table 3.8-2), with the 2013 Specific Plan estimated to result in 2.5 times less emissions than Scenario 1 and almost three times less emissions than Scenario 2, similar to these scenarios, this

alternative would not attain BAAQMD's Plan-level threshold to reach carbon neutrality by 2045 and, therefore, the No Project/Adopted 2013 Specific Plan Alternative would result in a significant and unavoidable GHG impact.

As shown in Table 3.18-4, the 2013 Specific Plan, under cumulative conditions, would not exceed the City's contractual wastewater treatment allocation at the PARWQCP Joint Facility. The 2013 Specific Plan plus General Plan buildout would result in a 2.63 million gallons per day (mgd) average dry weather flow for wastewater and 2.89 mgd average annual flow for wastewater, which is below East Palo Alto's contractual treatment capacity of 2.89 mgd average dry weather flow and 3.06 average annual flow. As discussed in Section 3.18 Utilities and Service Systems, under cumulative conditions with the General Plan buildout plus Specific Plan Update (both Scenario 1 and Scenario 2), wastewater flows would exceed the City's current contractual treatment capacity. The No Project/Adopted 2013 Specific Plan Alternative would be environmentally superior due to substantially reduced wastewater generation compared to the two Specific Plan Update scenarios. The 2013 Specific Plan would avoid the significant and unavoidable operational traffic noise impacts on the Bay Road segments from University Avenue to Clark Avenue, and from Clark Avenue to Pulgas Avenue (shown in Table 3.12-6), as the 2013 Specific Plan produces less new vehicle trips and the resulting traffic noise increase compared to existing conditions would be less than three dBA. The No Project/Adopted 2013 Specific Plan Alternative would be environmentally superior due to substantially reduced traffic noise impacts on Bay Road compared to the two Specific Plan Update scenarios.

The 2013 Specific Plan would result in a cumulative daily VMT per capita of 7.04 and VMT per employee of 10.35 (with the 30 percent trip reduction), which result in a less than significant VMT impact. As shown in Table 3.16-2 VMT Results, the Specific Plan Update, under buildout of Scenarios 1 and 2, would result in a cumulative daily VMT per capita and employee below the City's thresholds of 11.68 and 16.38, respectively (therefore, both buildout scenarios would result in a less than significant VMT impact). The residential VMT per capita Scenarios 1 and 2 would be 6.72 and 6.70, respectively (which includes an approximate 30 percent trip reduction from implementation of a TDM Plan). The VMT per employee would be 10.34 for Scenario 1 and 10.39 for Scenario 2 (with the 30 percent trip reduction). The traffic analysis included a conservative 30 percent trip reduction, however, the City's TDM Ordinance requires a 40 percent reduction. Therefore, the VMT per capita for the 2013 Specific Plan and Specific Plan Update would be lower than the results in Table 3.16-2.

New development under the No Project/Adopted 2013 Specific Plan Alternative would result in the same impacts to cultural resources (including TCRs), geology and soils, as the Specific Plan Update Scenarios 1 and 2, given that these resources are part of the existing environmental conditions and the same amount of redevelopment of existing uses, e.g. building demolition and ground disturbance, would occur. Significant impacts would be reduced to a less than significant level with mitigation measures presented in Section 3.5 Cultural Resources.

For biological resources, the 2013 Adopted Specific Plan Alternative assumes a loop road (with a multi-use path) would be constructed which would impact 6.3 acres of salt marsh/open water/tidal

slough habitat. The 2013 Specific Plan would result in similar biological resources impacts to the Specific Plan Update under both scenarios 1 and 2. However, the 2013 Specific loop road (with the multi-use path) would impact more salt marsh/open water/tidal slough habitat than the Specific Plan Update Scenarios 1 and 2 multi-use path options without the loop road (which would impact 3.8 acres of this habitat). However, the No Project/Adopted 2013 Specific Plan Alternative and the Specific Plan Update would require future projects to implement the same mitigation (MM BIO-1.4 through MM BIO-1.11) to protect the salt marsh harvest mouse and salt marsh wandering shrew to reduce impacts to these species to less than significant.

The No Project/Adopted 2013 Specific Plan Alternative would result in similar less than significant impacts, with the implementation of Specific Plan Policies and mitigation, on hazards and hazardous materials, hydrology and water quality, land use, and transportation impacts as the Specific Plan Update as new development under either would: a) implement policies that require the cleanup of contaminated sites b) comply with water quality regulations c) not physically divide an established community and comply with a land use plan/policy/regulation adopted to avoid or mitigate an environmental effect, and d) not result in a significant VMT impact.

Relationship to Project Objectives

The No Project/Adopted 2013 Specific Plan Alternative would:

- Meet Objective 1 as existing uses includes a mix of residential, office, R&D, retail, public open space and civic uses.
- Meet Objective 2 since this alternative would add of publicly accessible streets greenways, alleys, or multi-use pathways.
- Meet Objective 3 as the existing view corridors of the San Francisco Bay would remain.
- Meet Objective 4 since Bay Road would include active businesses changes to the Bay Road frontage would occur.
- Meet Objectives 5 and 6 since improvements to the circulation and mobility or pedestrian and bicycle connections would be implemented, but not to the same extent as the Specific Plan Update.
- Meet Objective 7 since this alternative would be subject to the City's TDM Ordinance which requires a 40 percent reduction in vehicles trips.
- Meet Objective 8 since this alternative would require height and massing transitions for new buildings adjacent to single-family houses.
- Partially meet Objective 9 since community benefits such as funding for home ownership programs, funding and/or below market rate subsidized space for entrepreneurs and other small local businesses, and construction of deed-restricted rental affordable housing for lower income earning 35 to 60 percent area median income (AMI) would be added but not to the same extent as Specific Plan Update (e.g., the City requires 15 percent affordable housing; with more housing being added under the Specific Plan Update compared to the 2013 Specific Plan, more affordable housing would be added to the Plan area).

- Partially meet Objective 10 since this alternative would add new jobs to expand economic opportunity for residents but not to the same extent as the Specific Plan Update, which would add more office, R&D, industrial, and civic/space than the 2013 Specific Plan.
- Meet Objective 11 since office developers would be subject to the Affordable Housing Commercial Linkage Fee program.
- Partially meet Objective 12 as this alternative would provide affordable housing (at least 122 units) to minimize the impacts to displaced residents but not to the same extent since to but not the Specific Plan Update which would add at least 176 affordable units for Scenario 1 and 206 units for Scenario 2.
- Meet Objective 13 as this alternative's future developments would be consistent with the City's current green building, water/energy conservation, or Reach Code standards.
- Partially meet Objective 14 to attract multiple large scale commercial and/or industrial projects, but not to the same extent as the Specific Plan Update scenarios.
- Partially meet Objective 15 by increasing development over time to improve revenues from property taxes, but not to the same extent as the Specific Plan Update scenarios.
- Partially meet Objective 16 by constructing deed restricted affordable housing to meet General Plan Housing Element goals, but not to the same extent as the Specific Plan Update scenarios (as stated above regarding Objective 12).
- Partially meets Objective 17 to enable substantial improvements to utility systems but not to the same extent as the Specific Plan Update scenarios (such construction of the Runnymede Pump Station that would improve flooding issues throughout the City).

Conclusion

The No Project/Adopted 2013 Specific Plan Alternative would result in roughly half the overall amount of development as the Specific Plan Update, resulting in lesser aesthetics, air quality, energy, GHG, noise, population and housing, public services, recreation, and utilities and services systems impacts. This alternative would avoid the Specific Plan Update's significant and unavoidable operational criteria pollutants impacts (No_x and PM₁₀); however ROG emissions would remain significant and unavoidable, yet substantially below the Specific Plan Update's ROG emissions. This alternative would not, in combination with cumulative growth, exceed the City's wastewater treatment contractual capacity This alternative would avoid the Specific Plan Update's significant and unavoidable operational noise impact, since traffic noise would increase by less than three dBA under the 2013 Specific Plan when compared to existing conditions.

The No Project/Adopted 2013 Specific Plan Alternative would result in the same or similar impacts to cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use, and transportation. This alternative, which would include the loop road, could result in more biological resources impacts than Scenarios 1 and 2 without the loop road given the loop road would impact more sensitive habitat.

The No Project/Adopted 2013 Specific Plan Alternative would meet Objectives 1 through 8, 11, and 13, and partially meet Objectives 1 ,9, 10, 12, 14, 15, 16, and 17.

7.3.2.4 *Reduced Scale Alternative*

The purpose of the Reduced Scale Alternative is to allow for more development than currently allowed by the 2013 Specific Plan yet avoid some of the Specific Plan Update's significant and unavoidable impacts that result from the overall scale of development. The amount of development that could occur without resulting in a significant traffic noise impact on Bay Road would be approximately 40 percent, as that would reduce trip volumes a sufficient amount to avoid a three (3) dBA increase, the level below which a traffic noise increase is not perceptible. Therefore, the Reduced Scale Alternative assumes a 40 percent decrease in the development allowed under Scenario 2 (with and without the loop road). As shown in Table 7.3-1, this alternative would result in a net increase over existing conditions of 900 residential units, 1,424,410 square feet of office/R&D space, 159,000 square feet for industrial space, 52,440 square feet of retail space, 77,820 square feet of civic/community space, and 32,100 square feet of tenant amenity space. This alternative assumes there could be construction of the multi-use path with the loop road and without the loop road (described in Section 2.3.4 of this SEIR). Compared to the Specific Plan Update Scenarios 1 and 2, the Reduced Scale Alternative would result in:

- 350 fewer residential units than Scenario 1, and 600 fewer residential units than Scenario 2
- 1,301,940 less square feet of office /R&D space than Specific Plan Update Scenario 1, and 1,812,940 less square feet than Scenario 2
- 35,000 less square feet of retail space than Scenarios 1 and 2
- 56,000 less square feet of industrial space than Specific Plan Update Scenario 1, and 106,000 less square feet than Scenario 2
- 51,880 square feet less square of civic/community space than Specific Plan Update Scenarios 1 and 2
- 11,770 less square feet of tenant amenity space for Specific Plan Update Scenario 1, and 21,400 less square feet of tenant amenity space for Scenario 2.

Comparison of Environmental Impacts

A summary comparison of the environmental impacts of the Specific Plan Update and the Reduced Scale Alternative is provided in Table 7.3-2.

The Reduced Scale Alternative would result in 40 percent less development than the Specific Plan Update, Scenario 2 (with and without the loop road). The reduction in development would result in less overall light and glare from new development, less overall energy use, less overall construction and operational criteria air pollutant emissions, less overall GHG emissions, less construction and project-generated traffic noise, less demand on public services (including recreational facilities), and less demand on utilities and service systems.

As shown in Tables 3.3-4 and 3.3-5, the Specific Plan Update Scenarios 1 and 2 operational criteria pollutant emissions would exceed BAAQMD thresholds for ROG, NO_x, and PM₁₀ primarily from vehicle emissions, resulting in significant unavoidable impact. The Reduced Scale Alternative would result in approximately 40 percent less operational criteria pollutant emissions for NO_x and PM₁₀,

which would be below BAAQMD thresholds, avoiding the significant and unavoidable impact for these criteria pollutants, but not for ROG which would be reduced to approximately 130 pounds per day for Scenario 2 with and without the loop road, still exceeding the 54 pounds per day BAAQMD threshold, or NO_x. The NO_x emissions would be reduced to 63 pounds per day with and without the loop road (exceeding the 54 pounds per day threshold) and PM₁₀ would be reduced to 70 pounds per day for Scenario 2 with and without the loop road, which is below the BAAQMD threshold of 82 pounds per day. The emissions for PM_{2.5} would be below BAAQMD thresholds for both the Reduced Scale Alternative and the Specific Plan Update. The Reduced Scale Alternative would be environmentally superior due to substantially reduced operational criteria pollutant emissions compared to the two Specific Plan Update scenarios.

Although the Reduced Scale Alternative would result in less overall operational GHG emissions, with the emissions resulting in 40 percent less emissions than Scenario 2, similar to Scenario 2, this alternative would not attain BAAQMD's Plan threshold to reach carbon neutrality by 2045 and, therefore, would also result in a significant and unavoidable GHG impact.

As discussed in Section 3.18 Utilities and Service Systems, under cumulative conditions with the General Plan buildout plus Specific Plan Update (both Scenario 1 and Scenario 2), wastewater flows would exceed the City's current contractual treatment capacity. The cumulative wastewater flow (Specific Plan Update Scenario 2 plus General Plan buildout) would be 3.18 million gallons per year, which exceeds the City's contractual treatment capacity of 2.89 mgd average dry weather flow for wastewater and 3.06 average annual flow for wastewater. Scenario 2's contribution to the cumulative sewer flow is 0.82 mgd average dry weather flow and 0.87 mgd average annual flow. The Reduced Scale Alternative would generate approximately 40 percent less wastewater than Scenario 2's sewer flow contribution, which would be 0.49 mgd average dry weather flow and 0.51 mgd average annual flow. The cumulative wastewater flow would be reduced to 2.78 mgd average dry weather flow and 2.96 mgd average annual flow, which is below the City's contractual treatment capacity of 2.89 mgd for average dry weather flow and 3.06 mgd average annual flow at PARWQCP Joint Facility. As a result the Reduced Scale Alternative would be environmentally superior due to substantially reduced wastewater generation compared to the two Specific Plan Update scenarios.

As shown in Table 3.12-6, operational traffic noise from the Specific Plan Update on the Bay Road segments from University Avenue to Clark Avenue, and from Clark Avenue to Pulgas Avenue could reach up to 68 dBA. This increase is four dBA above the existing traffic noise levels on these segments, which exceeds three dBA, resulting in a significant and unavoidable operational traffic noise impact. Under the Reduced Scale Alternative, a 40 percent reduction in traffic volumes would cause less than a three dBA increase. Therefore, the Reduced Scale Alternative would avoid the significant and unavoidable operational traffic noise impact. The Reduced Scale Alternative would be environmentally superior due to substantially reduced traffic noise impacts on Bay Road compared to the two Specific Plan Update scenarios.

New development under the Reduced Scale Development Alternative would result in the same impacts to biological resources, cultural resources (including TCRs), geology and soils, as the Specific

Plan Update Scenarios 1 and 2 given that these resources are part of the existing environmental conditions and the same amount of redevelopment of existing uses would occur. Significant impacts would be reduced to a less than significant level by implementation of the Specific Plan policies and mitigation measures presented throughout this SEIR.

The Reduced Scale Alternative assumes the multi-use path and loop road would have the same design and configuration as Scenarios 1 and 2 with the loop road. Therefore, the impacts from the loop road and multi-use path would be similar to the multi-use path and loop road impacts for Scenario 2.

The Reduced Scale Alternative would result in similar less than significant impacts, with the implementation of Specific Plan Policies and mitigation, on hazards and hazardous materials, hydrology and water quality, land use, and transportation impacts as the Specific Plan Update as new development would: a) implement policies that require the cleanup of contaminated sites b) comply with water quality regulations and not impact groundwater, c) not physically divide an established community and comply with a land use plan/policy/regulation adopted to avoid or mitigate an environmental effect, and d) not result in a significant VMT impact.

Relationship to Project Objectives

The Reduced Scale Alternative would:

- Meet Objective 1 as this alternative would include a mix of office, R&D, retail, public open space and civic uses.
- Meet Objective 2 since this alternative would add of publicly accessible streets greenways, alleys, or multi-use pathways.
- Meet Objective 3 as the existing view corridors of the San Francisco Bay would remain.
- Meet Objective 4 since Bay Road would include active businesses changes to the Bay Road frontage would occur.
- Meet Objectives 5 and 6 since improvements to the circulation and mobility or pedestrian and bicycle connections would be implemented, but not to the same extent as the Specific Plan Update.
- Meet Objective 7 since this alternative would be subject to the City's TDM Ordinance which requires a 40 percent reduction in vehicles trips.
- Meet Objective 8 since this alternative would require height and massing transitions for new buildings adjacent to single-family houses.
- Partially meet Objective 9 since community benefits such as funding for home ownership programs, funding and/or below market rate subsidized space for entrepreneurs and other small local businesses, and construction of deed-restricted rental affordable housing for lower income earning 35 to 60 percent area median income (AMI) would be added but not to the same extent as Specific Plan Update (e.g., the City requires 15 percent affordable housing; with more housing being added under the Specific Plan Update compared to the 2013 Specific Plan, more affordable housing would be added to the Plan area).

- Partially meet Objective 10 since this alternative would add new jobs to expand economic opportunity for residents but not to the same extent as the Specific Plan Update, which would add more office, R&D, industrial, and civic/space than the 2013 Specific Plan.
- Meet Objective 11 since office developers would be subject to the Affordable Housing Commercial Linkage Fee program.
- Partially meet Objective 12 as this alternative would provide affordable housing (at least 132 units) to minimize the impacts to displaced residents but not to the same extent since to but not the Specific Plan Update which would add at least 176 affordable units for Scenario 1 and 206 units for Scenario 2.
- Meet Objective 13 as this alternative's future developments would be consistent with the City's current green building, water/energy conservation, or Reach Code standards.
- Partially meet Objective 14 to attracting multiple large scale commercial and/or industrial projects, but not to the same extent as the Specific Plan Update scenarios.
- Partially meet Objective 15 by increasing development over time to improve revenues from property taxes, but not to the same extent as the Specific Plan Update scenarios.
- Partially meet Objective 16 by constructing deed restricted affordable housing to meet General Plan Housing Element goals, but not to the same extent as the Specific Plan Update scenarios (as stated above regarding Objective 12).
- Partially meets Objective 17 to enable substantial improvements to utility systems but not to the same extent as the Specific Plan Update scenarios (such construction of the Runnymede Pump Station that would improve flooding issues throughout the City).

Conclusion

The Reduced Scale Alternative would result in lesser aesthetics, air quality, energy, GHG, noise, population and housing, public services, recreation, and utilities and services systems impacts. This alternative would avoid the Specific Plan Update's significant and unavoidable operational criteria pollutants impacts (NO_x and PM₁₀); however, ROG emissions would remain significant and unavoidable, yet substantially below the Specific Plan Update's ROG emissions. This alternative would, in combination with cumulative growth, not exceed the City's wastewater treatment contractual capacity This alternative would avoid the Specific Plan Update's significant and unavoidable operational noise impact since traffic noise would increase by less than three dBA under the Reduced Scale Alternative when compared to existing conditions.

The Reduced Scale Alternative would result in the same or similar impacts to biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use, and transportation. This alternative has a loop road option and an option without the loop road similar to the Scenarios 1 and 2. The loop road and multi-use path for the Reduced Scale Alternative is assumed to have a similar footprint as the loop road and multi-use path for Scenarios 1 and 2 and, therefore, would have similar impacts to sensitive habitats (salt marsh, open water, and tidal slough). The Reduced Scale Alternatives would include the same Specific Plan Update Policies and mitigation measures that reduce impacts to these habitats and sensitive species to less than significant. The Reduced Scale Alternative would meet Objectives 1 through 8, 11, and 13, and partially meet Objectives ,9, 10, 12, 14 through 17 (as described above).

Table 7.3-2: Comparison of Impacts of the Specific Plan Update Scenarios to Project Alternatives

Impacts	Project Scenario #1 w/o Loop Road	Project Scenario 1 w/ Loop Road	Project Scenario 2 w/o Loop Road	Proposed Project Scenario 2 w/ Loop Road	No Project/Adopted 2013 Specific Plan	No Project/No New Development Alternative	Reduced Scale Alternative
Aesthetics	LTS	LTS	LTS	LTS	LTS	NI	LTS
Agricultural and Forestry Resources	NI	NI	NI	NI	NI	NI	NI
Air Quality	SU	SU	SU	SU	SU	NI	SU
Biological Resources	LTSM	LTSM	LTSM	LTSM	LTSM	NI	LTSM (with loop road) LTSM (without loop road)
Cultural Resources	LTS	LTS	LTS	LTS	LTS	NI	LTS
Energy	LTS	LTS	LTS	LTS	LTS	NI	LTS
Geology and Soils	LTS	LTS	LTS	LTS	LTS	NI	LTS
Greenhouse Gas Emissions	SU	SU	SU	SU	SU	NI	SU
Hazards and Hazardous Materials	LTS	LTS	LTS	LTS	LTS	NI	LTS

Table 7.3-2: Comparison of Impacts of the Specific Plan Update Scenarios to Project Alternatives

Impacts	Project Scenario #1 w/o Loop Road	Project Scenario 1 w/ Loop Road	Project Scenario 2 w/o Loop Road	Proposed Project Scenario 2 w/ Loop Road	No Project/Adopted 2013 Specific Plan	No Project/No New Development Alternative	Reduced Scale Alternative
Hydrology and Water Quality	LTS	LTS	LTS	LTS	LTS	NI	LTS
Land Use	LTS	LTS	LTS	LTS	LTS	NI	LTS
Mineral Resources	NI	NI	NI	NI	NI	NI	NI
Noise	SU	SU	SU	SU	LTS	NI	LTS
Population and Housing	LTS	LTS	LTS	LTS	LTS	NI	LTS
Public Services	LTS	LTS	LTS	LTS	LTS	NI	LTS
Recreation	LTS	LTS	LTS	LTS	LTS	NI	LTS
Transportation/Traffic	LTS	LTS	LTS	LTS	LTS	NI	LTS
Tribal Cultural Resources	LTS	LTS	LTS	LTS	LTS	NI	LTS
Utilities and Service Systems	LTS	LTS	LTS	LTS	LTS	NI	LTS

Table 7.3-2: Comparison of Impacts of the Specific Plan Update Scenarios to Project Alternatives

Impacts	Project Scenario #1 w/o Loop Road	Project Scenario 1 w/ Loop Road	Project Scenario 2 w/o Loop Road	Proposed Project Scenario 2 w/ Loop Road	No Project/Adopted 2013 Specific Plan	No Project/No New Development Alternative	Reduced Scale Alternative
Wildfire	NI	NI	NI	NI	NI	NI	NI
Meets All City’s Objectives?	Yes	Yes	Yes	Yes	Partially	Partially	Partially
Objective 1	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Objective 2	Yes	Yes	Yes	Yes	No	Yes	Yes
Objective 3	Yes	Yes	Yes	Yes	No	Yes	Yes
Objective 4	Yes	Yes	Yes	Yes	Partially	Yes	Yes
Objective 5	Yes	Yes	Yes	Yes	No	Yes	Yes
Objective 6	Yes	Yes	Yes	Yes	No	Yes	Yes
Objective 7	Yes	Yes	Yes	Yes	No	Yes	Yes
Objective 8	Yes	Yes	Yes	Yes	Partially	Yes	Yes
Objective 9	Yes	Yes	Yes	Yes	No	Partially	Partially
Objective 10	Yes	Yes	Yes	Yes	No	Partially	Partially
Objective 11	Yes	Yes	Yes	Yes	No	Yes	Yes
Objective 12	Yes	Yes	Yes	Yes	Yes	Partially	Partially

Table 7.3-2: Comparison of Impacts of the Specific Plan Update Scenarios to Project Alternatives

Impacts	Project Scenario #1 w/o Loop Road	Project Scenario 1 w/ Loop Road	Project Scenario 2 w/o Loop Road	Proposed Project Scenario 2 w/ Loop Road	No Project/Adopted 2013 Specific Plan	No Project/No New Development Alternative	Reduced Scale Alternative
Objective 13	Yes	Yes	Yes	Yes	No	Yes	Yes
Objective 14	Yes	Yes	Yes	Yes	No	Partially	Partially
Objective 15	Yes	Yes	Yes	Yes	No	Partially	Partially
Objective 16	Yes	Yes	Yes	Yes	No	Partially	Partially
Objective 17	Yes	Yes	Yes	Yes	Partially	Partially	Partially

Notes:

Bold text indicates being environmentally superior to the proposed Specific Plan.

NI = No impact; LTS = Less than significant impact; LTSM = Less than significant impact with mitigation incorporated; SU = Significant and unavoidable

Section 8.0 References

The analysis in this Environmental Impact Report is based on the professional judgement and expertise of the environmental specialists preparing this document, based upon review of the site, surrounding conditions, site plans, and the following references:

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

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

Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. 2022.

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

CARB. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Page 5.

California Air Resources Board. "The Advanced Clean Cars Program." Accessed May 13, 2022. <https://www.arb.ca.gov/msprog/acc/acc.htm>.

California Air Resources Board. "Overview: Diesel Exhaust and Health." Accessed July 29, 2022. <https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health>.

California Building Standards Commission. "California Building Standards Code." Accessed May 13, 2022. <https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo>.

California Department of Forestry and Fire Protection. "Fire Hazard Severity Zones Maps." Accessed July 29, 2022. <https://gis.data.ca.gov/datasets/789d5286736248f69c4515c04f58f414>.

California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons." Accessed April 26, 2021. <https://www.cdtfa.ca.gov/taxes-and-fees/spftrpts.htm>

California Office of Historic Preservation, Department of Parks and Recreation. California Office of Historic Preservation Technical Assistance Series #6, California Register and National Register: A Comparison (for purposes of determining eligibility for the California Register). June 2011.

¹ National Park Service. "National Register of Historic Places (NRHP)." Accessed May 17, 2023. <https://www.nps.gov/subjects/nationalregister/database-research.htm>

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

City of East Palo Alto. *Vista 2035 East Palo Alto General Plan*. October 2016.

California Building Standards Commission. "California Building Standards Code." Accessed May 13, 2022. <https://www.dgs.ca.gov/BSC/Codes#@ViewBag.JumpTo>.

California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County." Accessed July 29, 2022. <http://ecdms.energy.ca.gov/elecbycounty.aspx>.

California Natural Resources Agency. *San Mateo County Important Farmland 2018*. Published September 2019. SCH # 2014092027.

City of East Palo Alto. *City of East Palo Alto General Plan Update Draft Environmental Impact Report*. SCH #2014092027. April 2016. Page 4.1-4.

California Department of Transportation." Scenic High
City of East Palo Alto. *Vista 2035 East Palo Alto General Plan*. October 2016.

California Gas and Electric Utilities. *2020 California Gas Report*. Accessed July 29, 2022. [https://www.socalgas.com/sites/default/files/2020-10/2020 California Gas Report Joint Utility Biennial Comprehensive Filing.pdf](https://www.socalgas.com/sites/default/files/2020-10/2020%20California%20Gas%20Report%20Joint%20Utility%20Biennial%20Comprehensive%20Filing.pdf).

City of East Palo Alto. *City of East Palo Alto Municipal Code. 2024*

County of Santa Clara. *Comprehensive Land Use Plan Santa Clara County, Palo Alto Airport*. November 19, 2008, Amended November 16, 2016.

Federal Emergency Management Agency. Flood Insurance Rate Map. Map Number 06081C0307F. 2009.

Hexagon Transportation Consultants, Inc. *Ravenswood Specific Plan Update Transportation Analysis*. March 7, 2023.

Illingworth & Rodkin, Inc. *Ravenwood Specific Plan Update Air Quality/Greenhouse Gas Assessment*. July 2024.

Menlo Park Fire District. "Our Fire District." Accessed February 7, 2023. Available at: <https://www.menlofire.org/our-fire-district>

Metropolitan Transportation Commission. "Transit Priority Areas (2021)." Accessed May 28, 2024. <https://www.arcgis.com/apps/mapviewer/index.html?layers=370de9dc4d65402d992a769bf6ac8ef5>.

National Park Service. "National Register of Historic Places (NRHP)." Accessed May 17, 2023. <https://www.nps.gov/subjects/nationalregister/database-research.htm>

Office of Historic Preservation. "California Register of Historical Resources" Accessed May 17, 2023. https://ohp.parks.ca.gov/?page_id=21238

Office of Planning and Research. "CEQA Review of Housing Projects Technical Advisory." Accessed May 28, 2024. https://opr.ca.gov/docs/20190208-TechAdvisory-Review_of_Housing_Exemptions.pdf.

Peninsula Clean Energy. "Frequently Asked Questions." Accessed July 29, 2022. <https://www.peninsulacleanenergy.com/faq/>.

Peninsula Clean Energy. "Energy Choices." Accessed July 29, 2022. <https://www.peninsulacleanenergy.com/faq/>.

State of California Seismic Hazard Zones. Palo Alto Quadrangle. October 18, 2006. Available at: http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/PALO_ALTO_EZRIM.pdf

Schaaf & Wheeler. Ravenswood Business District Specific Plan Update Utility Impact Study. Table 4-1 EPASD Sewer Generation Rates April 21, 2023.

United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed July 5, 2022. <https://www.eia.gov/state/?sid=CA#tabs-2>.

United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed July 29, 2022. <https://www.eia.gov/state/?sid=CA#tabs-2>.

United States Energy Information Administration. "State Profile and Energy Estimates, 2020." Accessed July 29, 2022. <https://www.eia.gov/state/?sid=CA#tabs-2>.

United States Environmental Protection Agency. "The 2020 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." January 2021.

United States Department of Agriculture, Natural Resources Conservation Services. "Web Soil Survey." Accessed February 7, 2023. <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>

Personal Communications.

Devincenzi, Monica G., Republic Services. Re: Ox. Mtn. – Remaining Landfill Capacity. March 20, 2024.

Jon Johnson. Chief/Fire Marshall. Personal Communication. August 25, 2022.

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Section 10.0 Acronyms and Abbreviations

AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACM	asbestos-containing material
ALUC	Airport Land Use Commission
APN	Assessor's Parcel Number
ATCM	air toxic control measure
BAAQMD	Bay Area Air Quality Management District
Bay Area	San Francisco Bay Area
bgs	below ground surface
Btu	British thermal unit
CAAQS	California Ambient Air Quality Standard
CAL FIRE	California Department of Forestry and Fire Protection
Cal/OSHA	California Department of Industrial Relations, Division of Occupational Safety and Health
CalARP	California Accidental Release Prevention
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Standards Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH ₄	methane
CLUP	Comprehensive Land Use Plan
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO ₂	carbon dioxide

CO ₂ e	carbon dioxide equivalents
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agency
dBA	A-weighted decibel
DNL	Day/Night Average Sound Level
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Environmental Site Assessment
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FHSZ	Fire Hazard Severity Zone
FMMP	Farmland Mapping and Monitoring Program
GHG	greenhouse gas
GHGRS	Greenhouse Gas Reduction Strategy
GWh	gigawatt hour
GWP	Global Warming Potential
Habitat Plan	Santa Clara Valley Habitat Plan
HSWA	Hazardous and Solid Waste Amendments
ibid	Same source as previous footnote
L _{eq}	Energy-Equivalent Sound/Noise Descriptor
L _{max}	Maximum A-weighted noise level during a measurement period
LBP	lead-based paint
LOS	Level of Service
LRA	Local Responsibility Area
MBTA	Migratory Bird Treaty Act
MMTCO ₂ e	million metric tons of carbon dioxide equivalent
MND	Mitigated Negative Declaration
mpg	miles per gallon
MSL	mean sea level

MTC	Metropolitan Transportation Commission
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standard
NAHC	Native American Heritage Commission
NCP	National Contingency Plan
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO ₂	nitrogen dioxide
NOA	naturally occurring asbestos
NOD	Notice of Determination
NO _x	nitrogen oxides
NRHP	National Register of Historic Places
O ₃	ozone
PCB	polychlorinated biphenyls
PFC	perfluorocarbon
PDA	Priority Development Areas
PG&E	Pacific Gas and Electric Company
PM	particulate matter
PM ₁₀	particulate matter with a diameter of 10 microns or less
PM _{2.5}	particulate matter with a diameter of 2.5 microns or less
PPV	Peak Particle Velocity
R&D	Research and Development
RAP	Removal Action Plan
RCRA	Resource Conservation and Recovery Act
ROG	reactive organic gases
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	State Bill
SCS	Sustainable Communities Strategy
SF ₆	sulfur hexafluoride
SHMA	Seismic Hazards Mapping Act
SMARA	Surface Mining and Reclamation Act
SMGB	State Mining and Geology Board

SMP	Site Management Plan
SO _x	sulfur oxides
SR	State Route
SRA	State Responsibility Area
SWRCB	State Water Resources Control Board
TACs	Toxic Air Contaminants
Title 24	Title 24, Part 6 of the California Code of Regulations
TSCA	Toxic Substances Control Act
USACE	United States Army Corps of Engineers
USFWS	United States Fish and Wildlife Service
VMT	vehicle miles traveled
Williamson Act	California Land Conservation Act
WUI	wildland-urban interface
ZNE	zero net carbon emission