REGULAR PLANNING COMMISSION MEETING AGENDA

City Hall - Council Chambers
4381 Broadway, Ste. 201, American Canyon
April 27, 2023
6:30 PM

Chair: Crystal Mallare
Vice Chair: Brando Cruz
Commissioners: Eric Altman, Andrew Goff, Davet Mohammed

Consistent with Government Code Section 54953 and the American Canyon City Council Resolution Declaring the Existence of a Local Emergency due to the COVID-19 Pandemic, City Council and other public meetings will be conducted both in person at City Hall, 4381 Broadway, Suite 201, and also via Zoom Teleconferencing to promote local, state, and federal guidelines and social distancing recommendations for the containment of the coronavirus. City officials and members of the public are invited to attend the meeting either in person or via teleconference. This meeting will be broadcast live to residents on Napa Valley TV, on our website here and on YouTube here.

PUBLIC PARTICIPATION

Oral comments, during the meeting: Oral comments can be made in person during the meeting. A Zoom Webinar has been established for public comments made via zoom. To give your public comment via zoom, use the Register to Speak feature of eComments, connect via the below Zoom link and use the "raise your hand" tool, or call into the zoom meeting at 408-638-0968 and press *9 to "raise your hand" when the item is called. To avoid confusion, all hands raised outside of Public Comment periods will be lowered.

Written comments, via eComments: Please submit written comments through the eComments link, located on the Meetings & Agendas page of our website here. Comments will be available to planning commission members in real time. To allow for review of comments, eComments will close at 3:00 pm on the day of the meeting. All comments received will be posted online and become part of the meeting record.

Zoom Meeting Link: Click here.
Webinar ID: 847 8832 3786 Passcode: 442253

The above-identified measures exceed all legal requirements for participation in public comment, including those imposed by the Ralph M. Brown Act. For more information, please call the Office of the City Clerk at (707) 647-4369 or email cityclerk@cityofamericancanyon.org.

AGENDA MATERIALS: Planning Commission agenda materials are published 72 hours prior to the meeting and are available to the public via the City's website at www.cityofamericancanyon.org.

AMERICANS WITH DISABILITIES ACT: The Planning Commission will provide materials in appropriate alternative formats to comply with the Americans with Disabilities Act. Please send a written request to City Clerk at 4381 Broadway, Suite 201, American Canyon, CA 94503 or by email to cityclerk@cityofamericancanyon.org. Include your name, address, phone number and brief description of the requested materials, as well as your preferred alternative format or auxiliary aid,

at least three calendar days before the meeting.

6:30 P.M. REGULAR MEETING

CALL TO ORDER

PLEDGE

ROLL CALL

PUBLIC COMMENT

*This time is reserved for members of the public to address the Planning Commission on items of interest that are not on the Agenda and are within the subject matter jurisdiction of the Planning Commission. It is recommended that speakers limit their comments to 3 minutes each and it is requested that no comments be made during this period on items on the Agenda. Members of the public wishing to address the Planning Commission on items on the Agenda should comment via email prior to the start of the meeting, or to verbally comment on the item during the meeting, click the "raise your hand" button if joining by computer, or press *9 if joining by phone, when the item is called. The Planning Commission is prohibited by law from taking any action on matters discussed that are not on the Agenda, and no adverse conclusions should be drawn if the Planning Commission does not respond to public comment at this time. Speakers are asked to please speak clearly, and provide their name. Any handouts for distribution to the Planning Commission must be emailed by 3:00 p.m. on meeting day.*

AGENDA CHANGES

CONSENT CALENDAR

1. **Minutes of March 23, 2023**
Recommendation: Approve the Minutes of March 23, 2023

2. **Annual 2022 General Plan Annual Progress Report**
Recommendation: Receive and file the 2022 General Plan Annual Progress Report.

PUBLIC HEARINGS

3. **Chicken Guy Restaurant Conditional Use Permit**
Recommendation: Continue the Chicken Guy Restaurant Conditional Use Permit public hearing to May 25, 2023 (File No. PL22-0021)

4. **Sun Square Mixed-Use Design Permit**
Recommendation: Approve the Sun Square Mixed Use Project Design Permit for development of four mixed-use buildings consisting of twenty apartment units and 7,800 square feet of office space on a one-acre lot in the Community Commercial zoning district at 425 Napa Junction Rd, APN 059-020-003 (File no. PL21-0020)

BUSINESS

5. **Paoli Watson Lane Annexation Draft Environmental Impact Report (DEIR) Public Review**

Workshop

Recommendation: Receive and file Paoli Watson Lane Annexation DEIR and provide written comments on its environmental findings and conclusions.

6. **Fiscal Year 2023/24 Capital Improvement Program**

Recommendation:

Adopt a Resolution of the Planning Commission of the City of American Canyon, California, determining that the City of American Canyon Fiscal Year 2023/24 Capital Improvement Program is consistent and in conformity with the City of American Canyon General Plan.

MANAGEMENT AND STAFF ORAL REPORTS

7. **Active Planning Projects**

Recommendation: Review Active Planning Projects

COMMISSIONER ITEMS

ADJOURNMENT

CERTIFICATION

I, Nicolle Hall, Administrative Technician for the City of American Canyon, do hereby declare that the foregoing Agenda of the Planning Commission was posted in compliance with the Brown Act prior to the meeting date.

_____

Nicolle Hall, Administrative Technician

CITY OF AMERICAN CANYON
REGULAR PLANNING COMMISSION MEETING

ACTION MINUTES
March 23, 2023

6:30 P.M. REGULAR MEETING

CALL TO ORDER
The meeting was called to order at 6:30 p.m.

PLEDGE
The Pledge of Allegiance was recited.

ROLL CALL
Present: Commissioner Eric Altman, Commissioner Andrew Goff, Commissioner Davet Mohammed, Vice Chair Brando Cruz
Absent: Chair Crystal Mallare
Excused: None

AGENDA CHANGES
There were no agenda changes.

PUBLIC COMMENT
Vice Chair Cruz opened public comment for non-agendized items.

Written Comments: None Oral Comments: Beth Marcus was called to speak

Vice Chair Cruz closed the public comment period.

CONSENT CALENDAR

1. Minutes of February 23, 2023
Action: Motion to approve the minutes of February 23, 2023, made by Commissioner Eric Altman, seconded by Commissioner Davet Mohammed, and CARRIED by roll call vote.

Ayes: Commissioner Eric Altman, Commissioner Andrew Goff, Commissioner Davet Mohammed, Vice Chair Brando Cruz
Nays: None
Abstain: Chair Crystal Mallare
Absent: None
Excused: None

PUBLIC HEARINGS

2. Chicken Guy Restaurant Conditional Use Permit

Commissioners received a report and PowerPoint presentation from Senior Planner William He.

Speakers on behalf of the applicant:
Applicant Julio Tinajero, Milestone Associates Imagineering, Inc.
Husain Chandi, Owner CEO Chandi Hospitality
Joti Chandi, Chandi Hospitality
Ray Kapahi, EPS Environmental Permitting Specialists

Vice Chair Cruz opened the Public Hearing.

Written comments: Valerie Zizak-Morais, Yvonne Baginski, Jason Kishineff, Chris James, Celeste Mirassou, Jose Rangel, SG P, Jeannette Goyetche, Chris Benz, Jeanne Hillyard, TL Wong, Bill Kramer, Marion Sullivan. Oral Comments: Jeannette Cody was called to speak; Yvonne Baginski was called to speak; Matt Connelly was called to speak; Sativa Gonzalves was called to speak; JT Singh was called to speak; Beth Marcus was called to speak; Lilliana Karesh was called to speak; Tammy Wong was called to speak; Chris James was called to speak; Lori Stelling was called to speak.

Vice Chair Cruz closed the Public Hearing.

Commissioners deliberated on the item.

City Attorney William Ross provided additional comments.

Action: Motion to continue this item to the next regularly scheduled Planning Commission meeting, on the understanding that the applicant will provide the traffic impact analysis agreed to under condition 78(e)(8) and provide specifics regarding the mitigation measures, including the cap-and-trade program that have been discussed and proposed made by Commissioner Altman, seconded by Commissioner Goff and CARRIED by a roll call vote.

Ayes: Commissioner Eric Altman, Commissioner Andrew Goff, Commissioner Davet Mohammed, Vice Chair Brando Cruz
Nays: None
Abstain: None
Absent: Chair Crystal Mallare
Excused: None

3. 6th Cycle Housing Element Municipal Code and General Plan Amendment Implementation
Commissioners received a report from Community Development Director Brent Cooper.

Vice Chair Cruz opened the Public Hearing.

Written comments: None Oral Comments: None

Vice Chair Cruz closed the Public Hearing.

Action: Motion to adopt Resolution 2023-04 of the Planning Commission of the City of American Canyon recommending the City Council of the City of American Canyon amend the American Canyon Municipal Code Chapter 19.38 "Emergency Shelters"; Chapter 19.39 "Accessory Dwelling Units"; and delete General Plan Goal 1B Growth Control Policies consistent with current State Law made by Commissioner Andrew Goff, seconded by Commissioner Davet Mohammed, and CARRIED by roll call vote.

Ayes: Commissioner Eric Altman, Commissioner Andrew Goff, Commissioner Davet Mohammed, Vice Chair Brando Cruz
Nays: None
Abstain: None
Absent: Chair Crystal Mallare
Excused: None

MANAGEMENT AND STAFF ORAL REPORTS

4. Active Planning Projects
Action: Revue Active Planning Projects List

Community Development Director Brent Cooper reported on active planning projects, including the Hotel at the Ruins subdivision application for the condominiums at the hotel, 5555 Broadway, Paintball Jungle, Promontory Subdivision in Watson Ranch, Giovannoni Logistics Center, The Residences at Napa Junction, Sun Square Mixed Use project, Watson Ranch Artisan project, Comprehensive General Plan Update, Paoli Watson Lane Annexation, Annual Housing Element Review, Accessory Dwelling Unit Ordinance Update

Commissioner reported on items of interest.

ADJOURNMENT

The meeting was adjourned at 8:50 p.m.

CERTIFICATION

Respectfully Submitted,

_____

Nicolle Hall, Administrative Technician

TITLE

Annual 2022 General Plan Annual Progress Report

RECOMMENDATION

Receive and file the 2022 General Plan Annual Progress Report.

CONTACT

Brent Cooper, AICP, Community Development Director

BACKGROUND & ANALYSIS

California law requires every city and county adopt a long-term General Plan that expresses a long-term shared vision of a Healthy, Equitable, Resilient, and Economically Vibrant community. As the constitution of development, General Plan policies are fulfilled through City functions related to land use decisions, municipal service delivery, capital improvement projects, and consideration of funding priorities including potential service level changes.

Section 65400(b) of the State of California Government Code requires planning agencies to provide an Annual Progress Report (APR) to the legislative body (i.e.: "City Council") and the Governor's Office of Planning and Research (OPR) on the status of the General Plan and implementation progress. The four basic purposes of the annual report are as follows:

- Assess General Plan implementation progress consistent with the goals, policies and implementation measures.
- Provide information that may lead to needed General Plan modifications to improve implementation.
- Correlate land use decisions made during the reporting period, and General Plan goals, policies and implementation measures.
- Inform local agency progress in meeting its share of regional housing needs and local efforts to remove governmental constraints to housing development.

The State of California Office of Planning and Research (OPR), who will receive a copy of this APR, provides guidance on the format for the General Plan APR. OPR states there is no standardized format and the APR is not required to discuss all the General Plan elements. For this reason, OPR suggests that by using annual reporting information pertinent to General Plan such as: "annual

reports," "performance reports," "budget reports," or "state of the city/county reports", the APR need not be elaborate and time-consuming.

OPR encourages jurisdictions to include these types of reports or portions in the APR so long as they specifically address the implementation of the General Plan. This approach enables General Plan implementation to be discussed in the broader context of the jurisdiction's overall programs and activities, including real estate development, economic development, public infrastructure, public safety, and other topics.

This year's General Plan Annual Report looks back at 2022 and the City's progress toward implementing the General Plan. The APR draws significantly on published annual reports, such as the State of the City, Community Development published monthly status reports, the American Canyon Police Annual Report, and the Fire District monthly newsletter. All these reports reflect priorities that fulfill General Plan policies.

On April 18, 2023, the City Council received this APR as a Consent item. It is being provided to the Planning Commission as a Consent item as well. A copy of the Housing Element Annual Progress Report is included in this report as Appendix A to complete the General Plan review. The Housing Element Annual Progress Report was presented to the Planning Commission on February 23, 2023 and the City Council on March 21, 2023 and delivered to OPR and the State Department of Housing and Community Development (HCD) on March 24, 2023. In future years, the General Plan Annual Report will be paired with the Housing Element Annual Report.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Community and Sense of Place: "Build on the strength of our local community to develop a clear 'sense of place' and establish our unique identity."

FISCAL IMPACT

N/A

ENVIRONMENTAL REVIEW

N/A

ATTACHMENTS:

1. American Canyon General-Plan-APR-2022
2. Appendix A American Canyon Housing-Element-APR - 2022



City of American Canyon 2022 General Plan Annual Progress Report

April 18, 2023

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Purpose of this Document

California law requires every city and county adopt a long-term General Plan that expresses a long-term shared vision of a Healthy, Equitable, Resilient, and Economically Vibrant community. As the constitution of development, General Plan policies are fulfilled through City functions related to land use decisions, municipal service delivery, capital improvement projects, and consideration of funding priorities including potential service level changes.

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This APR draws significantly on published annual reports, such as the State of the City, Community Development published monthly status reports, the American Canyon Police Annual Report, and the Fire District monthly newsletter. All these reports reflect priorities that fulfill General Plan policies. This year's General Plan Annual Report looks back at 2022 and the City's progress toward implementing the General Plan.

A copy of the Housing Element Annual Progress Report is included in this report as "Appendix A" to complete the General Plan review. The 2022 Calendar Year Housing Element Annual Progress Report was presented to the Planning Commission on February 23, 2023 and the City Council on March 21, 2023 and delivered to OPR and the State Department of Housing and Community Development (HCD) on March 24, 2023.

General Plan Background/Element Status

California law requires that every city and county adopt a long-term General Plan that addresses seven specific topics or "elements," organized in any format or structure preferred by the community. The General Plan may also address other topics the community feels are relevant. Regardless of the format or issues addressed, the Plan must be internally consistent.

Following incorporation in January 1992, the City adopted a General Plan in 1994. The General Plan includes the following elements: 1) Land Use, 2) Housing, 3) Economic Development, 4) Circulation, 5) Utilities, 6) Public Services-Facilities, 7) Parks- Recreation, 8) Natural – Historic – Cultural, 9) Geology, 10) Flood Hazards, and 11) Noise. The General Plan also includes a Bicycle Plan and Pedestrian Plan as Appendix 1 and 2 to the Circulation Element.

Since the original General Plan adoption, the City has incrementally amended the Land Use Element many times, the most recent was April 4, 2023. This most recent amendment deleted Goal 1B and associated policies related to Growth Control policies from the original General Plan because the outdated Goal is inconsistent with State Law.

The Circulation Element was comprehensively updated in 2013 with incremental amendments since that time, the most recent was June 4, 2019. The 2019 Circulation Element amendment reflected changes needed to the Circulation plan to accommodate the Watson Ranch Specific Plan.

The Housing Element has been comprehensively updated consistent with State mandates, the most recent was January 31, 2023 pending certification by the State Department of Housing and Community Development (HCD).

Since 2020, the City has been preparing a comprehensive Technical update to the General Plan. At this time, an Administrative Draft Internal review of a Program Environmental Impact Report (PEIR) has been prepared. Following staff review of this document, the City will release the PEIR for a 45-day public review period and commence General Plan public hearings leading to its adoption by the end of 2023.

City's Responsibility

The effectiveness of the General Plan ultimately depends on how it is implemented and maintained over time. The General Plan is a fundamental document that provides local control over the physical development of our City. All Capital Improvement Projects, Land Use Ordinances, Development Approvals, Impact Fees, Infrastructure dedications and Conditions of Approvals must be consistent with the General Plan.

General Plan Amendments

State law allows the City to amend its General Plan no more than four times per year. Amendments may be proposed and acted upon at any time during the year and one action may include multiple amendments. Any changes to the General Plan require public hearing by the City Council and evaluation of the environmental impacts as required by the California Environmental Quality Act. In 2022, the City did not amend the General Plan.

Monitoring Long-Term Growth

The City monitors long-term growth through consistency among General Plan Elements working together to connect future growth with needed infrastructure. Implementing actions, such as traffic, water, parks, and other impact fees helps pay for the impacts of new development. Master Plans, such as the Urban Water Master Plan, the 5- Year Capital Improvement Plan (CIP), and other long-range infrastructure plans address impacts of land use growth.

Specific Plans, such as the Broadway District Specific Plan and Watson Ranch Specific Plan tie future growth to infrastructure needs. The California Environmental Quality Act (CEQA) also plays an important role in evaluating proposed development with infrastructure needs.

Major Development Applications

The City processed these major development applications during Calendar Year 2022:

Sunsquare Mixed Use - A Design Permit application for a 3-story mixed-use building with 20 apt units over a 9,820 SF office. This application is scheduled to be reviewed by the Planning Commission in April 2023.

Promontory at Watson Ranch - A tentative subdivision map and design permit for 216 single family homes, a 6+ acre open space/park, and approximately 1/2 mile of Napa Valley Vine Trail. This application is under review.

Residences at Napa Junction – A Design Permit for 453 multi-family rental dwellings with 15% affordable housing. This application is under review.

Watson Ranch Lot 8 Subdivision – A Tentative Subdivision map for 25 single family homes. This application is under review.

Watson Ranch Specific Plan Amendment – An update to the Watson Ranch Specific Plan. This application is under review.

Hotel @ The Ruins - A Design Permit for a proposed 200-room hotel at the Watson Ranch Ruins & Gardens, conference facilities, event venues, and 30 attached condominium residences. This application was approved by the Planning Commission in January 2023.

Giovannoni Logistics Center – A Design Permit and Tentative Parcel map for a 2.4 million sqft logistics center. This application was approved by the City Council in March 2023.

Hampton Inn Hotel – A Zone Change and Conditional Use Permit for a 112-room, 3-story hotel. This application was approved by the City Council in 2022.

SDG Commerce 217 Distribution Center – A Conditional Use Permit for a new 217,000 sqft distribution warehouse. The appeal of the Planning Commission's 2021 approval was withdrawn in 2022. With the Planning Commission approval sustained, the construction permits are nearing ready for approval.

Chicken Guy Restaurant - A Conditional Use Permit for a 2,818 sqft quick serve drive-thru restaurant. The Planning Commission will resume its review of this application in April 2023.

Major Development Construction

Construction was approved, initiated or completed within American Canyon for the following major projects during the Calendar Year 2022:

Watson Ranch Artisan (Lot 14/15) – This project consists of 98 single family homes on a 12-acre site. The project received site plan and subdivision approval in 2020 and construction permits in 2022.

Watson Ranch Harvest (Lot 10) – This project consists of 216 single family homes on a 27-acre site. The project received site plan and subdivision approval in 2021 and construction permits in 2022.

Napa Cove Affordable Apartments – This project consists of 66 deeply affordable apartments on 3.5 acres. The 3-building project received site plan approval in 2021 and building permits in 2022.

North Bay Urgent Care – This project consists of a new 6,000 square foot freestanding urgent care facility. The building received site plan approval in 2019, construction permits in 2019, and was completed in 2022.

Home2Suites Hotel – This project consists of 102 hotel rooms on 2 acres. The building received site plan approval in 2020, construction permits in 2022, and is now under construction.

Pacific Gas and Electric Regional Center – This project consists of a 100,000 square foot regional center for maintenance operations on 12 acres. The project received site plan approval in 2021 and construction permits in 2022.

Oat Hill Residential Project – The Oat Hill Residential project includes 219 multifamily residential units on 20 acres. The project received entitlements consisting of a general plan amendment, zone change, subdivision maps, site plan approval and an airport land use commission override in 2021 and grading permits in 2022.

Major 2022 Planning Activities that Support General Plan Goals

Comprehensive General Plan Update – The City issued a Notice of Preparation of a Program EIR for the Comprehensive General Plan update in 2022.

6th Cycle Housing Element Update – The Association of Bay Area Governments affirmed a RHNA transfer agreement between the City of American Canyon and Napa County that transfers 176 units of varying affordability requirements to the City of American Canyon in 2022. The City subsequently updated the Housing Element and submitted it to the State Department of Housing and Community Development (HCD).

Native American tribal consultation – The 6th Cycle Housing Element includes Policy H-8.12 that requires any Native American human remains, grave goods, ceremonial items, and items of cultural patrimony found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground disturbing activity, shall implement the "Yocha Dehe Wintun Nation Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation" shall be implemented as included as Appendix A to the Housing Element Background Report. This policy applies to any development project, not just housing.

Annual Housing Element Report - The Planning Commission and City Council each conducted a public hearing to review the Housing Element Annual Report prior to the April 1 deadline in 2022. This report is attached to the General Plan APR.

Fuel Station Prohibition Ordinance – The City Council approved an ordinance in 2022 that prohibits new and expanded fossil-fuel stations in American Canyon. This zoning code amendment was preceded by a Land Use Amendment approved in 2021 to add climate-change policies to the General Plan.

Smoke Free Multiunit Ordinance – A student-led proposal to adopt an ordinance that would prohibit smoking within and on the grounds of any multiunit residential development. An ordinance has been drafted and is anticipated to be reviewed by the City Council by June 2023.

2-Year Contract with the City of Napa Housing Authority – The entered into a 2-year agreement that enables American Canyon to take advantage of specialized housing services provided by the City of Napa Housing Authority in 2022.

1-Year Contract with Fair Housing Napa Valley – The entered into a 1-year agreement in 2022 that enables American Canyon to take advantage of specialized Fair Housing services provided by the nonprofit agency Fair Housing Napa Valley.

2022 Building Code Update – The City approved an update to the California Building Codes to ensure development is constructed consistent with State law and local amendments.

2020 Urban Water Management Plan – The City updated the 2015 Urban Water Management Plan for the City's water service area consistent with State law in 2022.

Local Streets and Roads Plan – The City adopted a Local Streets and Roads plan in 2022.

5-Year Capital Improvement Program – The Planning Commission approved a General Plan Consistency determination for the 5-Year Capital Improvement Program in 2022.

Impact Fee Inflation Adjustment – To maintain the buying power of impact fees over time, the City Council approved an annual inflation adjustment to impact fees in 2022.

Napa Valley Transportation Authority (NVTA) Project Initiation Document - In 2022, the City continued its support to NVTA's efforts to complete a "Project Initiation Document" for Highway 29 beautification, functionality, and operational improvements. In 2022, the NVTA Board approved the plan and authorized environmental review.

Status of General Plan Implementation Actions

The table below analyzes selected General Plan policies and action items that made notable progress in 2022. The table is not a comprehensive list of all policies and action items in the General Plan; many policies/actions are under ongoing implementation and may not be listed here.

A majority of the General Plan policies and related action items have been implemented through the adoption of ordinances or resolutions, incorporated into the regular governmental activities, or considered during the review of development proposals. The policy implementations below provide a snapshot to highlight annual progress.

Land Use Element
Goal 1E Develop residential neighborhoods that provide a range of housing opportunities
In 2022, the City issued construction permits and inspected housing projects for a wide range of housing types: the Oat Hill multifamily project (291 units), the Lemos Pointe affordable apartments (186 units), the Napa Cove affordable apartments (66 units), the Watson Ranch Artisan single family homes (98 units), the Watson Ranch single family homes (216 units).
Goal 1F Develop high quality commercial uses
In 2022, the City completed inspection of the North Bay Urgent Care which will provide a much-needed medical service to American Canyon. The city issued building permits for the Home2Suites hotel which is under construction. The City also welcomed two new restaurants to American Canyon in 2022: Ristorante Pasta D'oro and Bel King Indian Grill. 2022 also saw completion of the Circle K gas station and convenience store. This is the last gas station in American Canyon due to the 2021 approval of an ordinance that prohibits new and expanded gas stations in American Canyon.
Goal 1I and Economic Development Element Goal 3 Develop industrial uses that provide employment for residents and revenue for the City.
In 2022, the City continued to process the Giovannoni Logistics Center which would provide 2.4 million square feet of industrial development in the Green Island Industrial Park and approved construction permits for the Pacific Gas & Electric Regional Center.
Goal 1L Study potential development of lands between Newell Drive and the City Urban Limit Line
In 2022, the City continued to see progress in the construction of Canyon Estates – a custom home neighborhood in the former Special Study area. This project includes 35 acres of permanent open space and a contribution to improvements at the Newell Open Space reserve.
Goal 1Q Expand American Canyon's jurisdictional boundaries to establish a logical pattern of growth and services
In 2022, the City issued a Notice of Preparation of an Environmental Impact Report (EIR) for the Paoli/Watson Lane Annexation. This project would add approximately 80 acres into the City limits consistent with the General Plan Sphere of Influence and Urban Limit Line. An EIR has been released for public review in 2023.

Economic Development Element
Goal 3B Improve the appearance and functionality of the Highway 29 corridor and establish a Town Center to provide for economically sound local-serving commercial development.
In 2022, the city issued construction permits for new commercial and residential development in the Broadway District along Highway 29 and in Watson Ranch which will provide a new Town Center, known as the Napa Valley Ruins & Gardens.

Circulation Element
Guiding Policy 1: Safe and convenient access to activities in the community.
In 2022, the City completed the following traffic calming projects: • Crosswalk ramp improvements on Folland Drive, Corsicana Drive, Brophy Street, Kemp Lane, Kemp Way, Sheffield Way, and Folland Drive, Gold Valley Way at Tapestry Lane • Enhanced pedestrian intersection on Donaldson Way at Shenandoah Drive and on Silver Oak Trail at White Oak Drive • 8,600 feet of new Class II Bike Lanes on Donaldson Way, Shenandoah Drive, and Silver Oak Trail • Enhanced crosswalk improvements on Elliott Drive and on Daniel Drive

- Installed 410 feet of sidewalk on Eucalyptus Drive
- Installed permanent traffic calming measures on Wetlands Edge, including speed cushions and curb bulb-outs

The City initiated the We Love Safe Streets program and resident pledge.

In 2022, the City of American Canyon completed an annual pavement resurfacing project that included paving, ADA upgrades, bike lane, and/or crosswalk improvements at the following streets: American Canyon Road East (between Flosden Road & City Limits), Blanco Street, Brophy Street, Corsicana Drive, Commerce Boulevard, Donaldson Way East, Flosden Road at Daniel Drive, Folland Drive, Gold Valley Way & Tapestry Lane, Kemp Lane, Kemp Way, Sheffield Way, Shenandoah Drive, and Silver Oak Trail. This project was funded by SB1/Gas Tax, Measure T, and ARPA Funding. Six streets are planned for 1.5 miles of grind and overlay through Measure T Funding in 2023. Other streets are also intended to be funded through SB1/Gas Tax Funding. The selected areas are based on our pavement management program, considering public safety, underground utility needs, and available funding. To learn more about how these decisions are made or see the specific areas on the project list, visit CityofAmericanCanyon.org/Streets.

Guiding Policy 2: Implement Planned Roadway Improvements.

In 2022, the City completed a critical link of Devlin Road and Vine Trail from Green Island Road to Middleton Way.

Guiding Policy 3: Design circulation system to focus regional travel on SR 29.

In 2022, the City supported the Napa Valley Transportation Authority efforts to develop a "Project Initiation Document" for Highway 29 beautification, functionality, and operational improvements.

Utilities Element

Goal 5 Establish and maintain a secure water supply and treatment, distribution and storage system.

Over the past decade American Canyon has reduced 32% in water delivered from the State Water Project (equal to 389 million gallons of water) even though the City has grown by a few thousand people and 10 million SF of commercial/industrial development. Continued efforts in water sustainability by:

- Implementation of the City's Zero Water Footprint Policy,
- Partnering with all jurisdictions throughout the county on a public messaging billboard on Hwy 29 in south Napa County,
- Broadening the use of recycled water including residential landscaping deliveries,
- Diligent employee work to replace leaky pipelines, and
- Introducing the AquaTrax Customer Water Portal that lets residents track their water consumption in real time.

To save water, residents can limit irrigation and repair leaks at home. Sign up for "My Water Portal" and learn more about water-saving resources—including American Canyon's 'Cash for Grass' and the toilet replacement rebates—at CityofAmericanCanyon.org/SaveWater.

In 2022, more than 500 American Canyon residents participated in the residential recycling program, saving 7.1 acre-feet (AF) of potable water.

Goal 5A Provide a high quality water supply to American Canyon water users.

In 2022, the City continued to participate in development of the Sites Reservoir, which is an environmentally sensitive reservoir that stores excess winter runoff water for use when demands are high. This facility is anticipated to be completed in early 2030's.

Public Services-Facilities Element
Goal 6A Ensure a high level of fire protection and emergency services for the City's residents, businesses and visitors.
In 2022, the Fire District welcomed a new Fire Chief Geoff Belyea. In other highlights during 2022: • The Fire District Board approved to purchase two new Type 1 Fire Engines • Hired Firefighters: Conner Alexander, Eric Hanson, Sarah Bayersdorfer & Christopher Heim • Hired Assistant Chief Cliff Campbell • In-House Academy Completion, led by Captain Kenny Diede • Retirement of Captain Josh Corderio and Interim Assistant Chief James Comisky II • 5 Years' Service Awards: EJ Abalos & Rob Rojas • September 11th Ceremony • 15 Years' Service Award: Martha Banuelos • Completed and Adopted a Fire District Master Plan • Completed over 50 Public Education Events • Educated more than 1,000 Community Members "Hands Only CPR" • Public Safety Open House Event – Including a Quiet Hour for the Special Needs Community • The Board established a Battalion Chief classification • Retired Battalion Chief Anthony Kastros led an Officers Training and Team Building exercise • Negotiated a long-term supplemental funding source to mitigate fiscal impacts from the Giovannoni Logistics Center.
Goal 6B Ensure a high level of police protection for the City's residents, businesses and visitors.
In 2022, Community Resource Officer Maureen Patterson (CRO) served a long list of responsibilities, including crime prevention, monthly meeting with property managers, crime free multi-housing program, homeless outreach, graffiti and gang prevention, working with local businesses, numerous community outreach and event meetings. In 2022, the Police Department organized the 38th American Canyon National Night Out held on the first Tuesday in August. This year, there were 12 neighborhood hosted parties. In 2022, the American Canyon Neighborhood Watch resident enrollment climbed to more than 3,600. This is an increase from just over 1,600 since 2020. In 2019, ACPD and NW created a home surveillance camera registry program. There are now 153 residents who have joined the NW Camera Registry (up from 127 last year). In 2022, Officer Jade McLeod was paired with his three-year old Belgian Malinois K9 Partner "Brody." Brody is trained in handler protection, suspect apprehension, explosive detection, and human detection. In 2022, Brody participated in two K-9 demonstrations, seven bomb sweeps, and 14 patrol deployments while assisting with multiple felony arrests. Officer Mike Hudson, Officer Hudson was paired with his 3-year-old Belgian Malinois K-9 partner "Brick" in June 2021. Brick is trained in handler protection, suspect apprehension, narcotics detection, and human detection. In 2022, Brick participated in three K-9 demonstrations, 15 narcotic-related deployments, 30 patrol deployments, and assisted in multiple felony arrests. A full report of the 2022 American Canyon Police Annual Report is available at https://bit.ly/43lm5Oy

Parks and Recreation Element
Goal 7 Provide parks, trails and recreational services for all of the City's residents.
In 2022, the City approved the Playground Replacement Project in partnership with American Canyon Community & Parks Foundation. This project will upgrade playground equipment at Via Bellagio Park, Northampton Park, Linwood Park. The Northampton Park will be upgraded with an all-access universal play experience. In 2022, the City Council adopted a Resolution approving and funding the Skateboard Relocation Project, which includes relocating the Skatepark from the NVUSD property to the City of American Canyon's Veterans Park located at 2801 Broadway Street. The City is working with American Ramp Company to complete the project by the summer 2023.
Goal 7A Provide a variety of parks and trails that serve the diverse recreational needs of American Canyon's residents
In 2022, the City is working with the California Department of Parks and Recreation – California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Act of 2002 Grant to provide an outdoor education site at the Wetlands. The City is finalizing the plans for this project and is looking to include a park restroom and an outdoor shaded area with benches. This project is slated for groundbreaking by late 2023.

Natural-Historic-Cultural Element
Goal 8F Reduce consumption of nonrenewable energy sources.
In 2020, the City Council approved a contract with ENGIE Services U.S. to install solar PV at three locations, emergency power at 4 critical facilities: Water Treatment Plant (WTP), Water Reclamation Facility (WRF), City Hall, and the Corporation Yard, battery storage at the Water Reclamation Facility (WRF), LED lighting retrofits at seven facilities, HVAC equipment and controls upgrades, and four Electric Vehicle charging stations at City Hall. In 2022, the Project completed a 240-kw solar array and backup generator at the City's Water Treatment plant and a 510-kw solar array and backup generator at the City's Wastewater Treatment Plant.

Housing Element Annual Progress Report Overview (Appendix A)

Preserving and enhancing the range and affordability of housing is an important goal of the General Plan. Attached to this report is the Annual Housing Element Progress Report. This report was presented to the Planning Commission on February 23, 2023 and the City Council on March 21, 2023 and delivered to OPR and the State Department of Housing and Community Development (HCD) on March 24, 2023.

Please Start Here

General Information	
Jurisidiction Name	American Canyon
Reporting Calendar Year	2022
Contact Information	
First Name	William
Last Name	He
Title	Senior Planner
Email	whe@cityofamericancanyon.org
Phone	7076474337
Mailing Address	
Street Address	4381 Broadway St - Suite 201
City	American Canyon
Zipcode	94503

Optional: Click here to import last year's data. This is best used when the workbook is new and empty. You will be prompted to pick an old workbook to import from. Project and program data will be copied exactly how it was entered in last year's form and must be updated. If a project is no longer has any reportable activity, you may delete the project by selecting a cell in the row and typing ctrl + d.

Click here to download APR Instructions

12_28_22

Jurisdiction	American Canyon	
Reporting Year	2022	(Jan. 1 - Dec. 31)
Planning Period	5th Cycle	01/31/2015 - 01/31/2023

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Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table A
Housing Development Applications Submitted

Project Identifier					Unit Types		Date Application Submitted	Proposed Units - Affordability by Household Incomes							Total Approved Units by Project	Total Disapproved Units by Project	Streamlining	Density Bonus Law Applications		Application Status	Notes
1					2	3	4	5							6	7	8	9	10		11	12
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Unit Category (SFA,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Date Application Submitted+ (see instructions)	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low-Income Deed Restricted	Low-Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Total PROPOSED Units by Project	Total APPROVED Units by project	Total DISAPPROVED Units by Project	Was APPLICATION SUBMITTED Pursuant to GC 65913.4(b)? (SB 35 Streamlining)	Ddi the housing development application seek incentives or concessions pursuant to Government Code section 65915?	Were incentives or concessions reqested pursuant to Government Code section 65915 approved?	Please indicate the status of the application.	Notes+
Summary Row: Start Data Entry Below								72	2	26	4	0	432	216	752	6	0					
	058-413-009	262 Sheffield	262 Sheffield ADU	BP22-0012	ADU	R	3/9/2022		1						1	1	0	No	No	No	Approved	
	058-611-019	1707 Rio Grande	1707 Rio Grande ADU	BP22-0125	ADU	R	3/17/2022				1				1	1	0	No	No	No	Approved	
	058-201-003	230 Andrew	230 Andrew ADU	BP22-0269	ADU	R	6/1/2022				1				1	1	0	No	No	No	Approved	
	059-241-019	58 Sarcedo	58 Sarcedo ADU	BP22-0465	ADU	R	8/30/2022				1				1	1	0	No	No	No	Approved	
	058-496-001	25 Larkspur	25 Larkspur ADU	BP22-0533	ADU	R	9/26/2022				1				1	1	0	No	No	No	Approved	
	058-544-010	209 Jana	209 Jana ADU	BP22-0732	ADU	R	12/14/2022		1						1	1	0	No	No	No	Approved	
	059-020-003	425 Napa Junction	Sun Square Mixed Use	PL21-0020	5+	R	8/2/2021	1		1		1	17		20	0		No	No	No	Pending	Project is in review
	059-020-037	TBD Napa Junction	Residences at Napa Junction	PL22-0011	5+	R	5/2/2022	46					407		453	0		No	Yes	Yes	Pending	Project is in review
	059-430-012	TBD	WRSP Lot 8	PL22-0024	SFD	R	9/15/2022						25		25	0		No	No	No	Pending	Project is in review
	059-030-007	TBD	WRSP: Promontory	PL22-0034	SFD	R	12/20/2022							216	216	0		No	No	No	Pending	Project is in review
	059-030-007	TBD	WRSP Promontory ADUs	PL22-0034	ADU	O	12/20/2022	26		26					52	0		No	No	No	Pending	Project is in review
															0							
															0							
															0							

Jurisdiction	American Canyon
Reporting Year	2022 (Jan. 1 - Dec. 31)
Planning Period	5th Cycle 01/31/2015 - 01/31/2023

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table A2
Annual Building Activity Report Summary - New Construction, Entitled, Permits and Completed Units

Project Identifier					Unit Types		Affordability by Household Incomes - Completed Entitlement									Affordability by Household Incomes - Building Permits								
1					2	3	4							5	6	7							8	9
Prior APN*	Current APN	Street Address	Project Name*	Local Jurisdiction Tracking ID*	Unit Category (SFA,SFD,2 to 4,5+,ADU,MH)	Tenure R=Renter O=Owner	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Entitlement Date Approved	# of Units issued Entitlements	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Building Permits Date Issued	# of Units Issued Building Permits
Summary Row: Start Data Entry Below							0	2	0	4	0	0	0		6	26	2	39	0	0	1	88		156
	058-141-003	44 Alta Loma	44 Alta Loma ADU	BP20-0024	ADU	R				1				1/21/2020	1				1				2/11/2021	1
	058-281-010	151 Thayer	151 Thayer ADU	BP20-0487	ADU	O		1						10/23/2020	1		1						3/24/2021	1
	058-492-005	21 Alder Ct	21 Alder ADU	BP21-0067	ADU	O				1				2/17/2021	1				1				6/3/2021	1
	058-173-002	100 Corsicana	100 Corsicana ADU	BP21-0325	ADU	O				1				7/22/2021	1				1				11/6/2021	1
	058-151-045	120 Gisela	120 Gisela ADU	BP21-0348	ADU	R		1						8/2/2021	1		1						11/6/2021	1
	058-563-001	457 Poppyfield	457 Poppyfield ADU	BP21-0553	ADU	O				1				12/23/2021	1		1						11/23/2022	1
	058-362-021	100 Rojas	Napa Cove	PL21-0027	5+	R	26		39			1		12/16/2021	66	26		39			1		3/23/2022	66
	059-430-017	100 Fran Lemos	WRSP: Lemos Point	PL21-0004	5+	R	122		62		2			2/25/2021	186	122		62		2			11/23/2021	186
	059-430-027	101 Frontier	WRSP Lot 14 and 15: Artisan	PL20-0032	SFD	O							98	12/15/2020	98							44	12/13/2022	44
	059-430-015	101 Goldback	WRSP Lot 10: Harvest	PL21-0014	SFD	O							219	9/21/2021	219							44	12/14/2022	44
	058-380-008	TBD	Oat Hill Parcel A	PL20-0022	5+	R							206	9/21/2021	206									0
	058-320-001	TBD	Oat Hill Parcel B	PL20-0023	5+	R							85	9/21/2021	85									0
	058-413-009	262 Sheffield	262 Sheffield ADU	BP22-0012	ADU	R		1						3/9/2022	1		1						6/9/2022	1
	058-611-019	1707 Rio Grande	1707 Rio Grande ADU	BP22-0125	ADU	R				1				3/17/2022	1									0
	058-201-003	230 Andrew	230 Andrew ADU	BP22-0269	ADU	R				1				6/1/2022	1									0
	059-241-019	58 Sarcedo	58 Sarcedo ADU	BP22-0465	ADU	R				1				8/30/2022	1									0
	058-496-001	25 Larkspur	25 Larkspur ADU	BP22-0533	ADU	R				1				9/26/2022	1									0
	058-544-010	209 Jana	209 Jana ADU	BP22-0732	ADU	R		1						12/14/2022	1									0
	058-282-004	25 Andrew	25 Andrew ADU	BP19-0534	ADU	R				1				12/30/2019	1				1				6/26/2020	1
															0									0
	059-430-021	TBD	WRSP Lot 17: Hotel at the Ruins	PL22-0012	5+	O							30	1/26/2023	30									0
															0									0

Affordability by Household Incomes - Certificates of Occupancy										Streamlining	Infill	Housing with Financial Assistance and/or Deed Restrictions		Housing without Financial Assistance or Deed Restrictions	Term of Affordability or Deed Restriction	Demolished/Destroyed Units			Density Bonus				Notes
10							11	12	13	14	15	16	17	18	19	20			21	22	23	24	25
Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate-Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Certificates of Occupancy or other forms of readiness (see instructions) Date Issued	# of Units issued Certificates of Occupancy or other forms of readiness	How many of the units were Extremely Low Income?*	Was Project APPROVED using GC 65913.4(b)? (SB 35 Streamlining) Y/N	Infill Units? Y/N*	Assistance Programs for Each Development (may select multiple - see instructions)	Deed Restriction Type (may select multiple - see instructions)	For units affordable without financial assistance or deed restrictions, explain how the locality determined the units were affordable (see instructions)	Term of Affordability or Deed Restriction (years) (if affordable in perpetuity enter 1000)*	Number of Demolished/Destroyed Units	Demolished or Destroyed Units	Demolished/Destroyed Units Owner or Renter	Total Density Bonus Applied to the Project (Percentage Increase in Total Allowable Units or Total Maximum Allowable Residential Gross Floor Area)	Number of Other Incentives, Concessions, Waivers, or Other Modifications Given to the Project (Excluding Parking Waivers or Parking Reductions)	List the incentives, concessions, waivers, and modifications (Excluding Parking Waivers or Parking Modifications)	Did the project receive a reduction or waiver of parking standards? (Y/N)	Notes*
0	2	0	2	0	0	0		4	15	0						0		0					
			1				6/29/2022	1	0	N	Y			Self-certified income survey									
	1						1/19/2022	1	0	N	Y			Self-certified income survey									
								0	0	N	Y			Self-certified income survey									
	1						11/18/2022	1	1	N	Y			Self-certified income survey									
								0	0	N	Y			Self-certified income survey									
								0	0	N	Y			Self-certified income survey									
								0	13	N	Y	Other, LIHTC	DB	Deed Restricted	55				0.0%	2	Development Standards Modification	Yes	SB330 application
								0	0	N	Y	Other	DB	Deed Restricted	55				0.0%	2	Development Standards Modification	Yes	Part of Watson Ranch Specific Plan entitlement, approved in Nov. 2018.
								0	0	N	Y												Part of Watson Ranch Specific Plan entitlement, approved in Nov. 2018.
								0	0	N	Y												Part of Watson Ranch Specific Plan entitlement, approved in Nov. 2018.
								0		N	Y												
								0		N	Y												
								0	0	N	Y			Self-certified income survey									
								0		N	Y			Self-certified income survey									
								0		N	Y			Self-certified income survey									
								0		N	Y			Self-certified income survey									
								0		N	Y			Self-certified income survey									
								0		N	Y			Self-certified income survey									
			1				8/17/2022	1	1	N	Y			Self-certified income survey									
								0	0														
								0	0	N	Y												Part of Watson Ranch Specific Plan entitlement, approved in Nov. 2018.
								0															

Jurisdiction	American Canyon	
Reporting Year	2022	(Jan. 1 - Dec. 31)
Planning Period	5th Cycle	01/31/2015 - 01/31/2023

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This table is auto-populated once you enter your jurisdiction name and current year data. Past year information comes from previous APRs.

Please contact HCD if your data is different than the material supplied here

Table B
Regional Housing Needs Allocation Progress
Permitted Units Issued by Affordability

Income Level		1 RHNA Allocation by Income Level		2 2015	2016	2017	2018	2019	2020	2021	2022	2023	3 Total Units to Date (all years)	4 Total Remaining RHNA by Income Level
Very Low	Deed Restricted	116	-	-	-	49	8	-	-	122	26	-	210	-
	Non-Deed Restricted		-	-	-	-	-	1	-	2	2	-		
Low	Deed Restricted	54	-	9	-	20	8	-	-	62	39	-	148	-
	Non-Deed Restricted		-	-	-	-	3	-	3	4	-	-		
Moderate	Deed Restricted	58	-	-	-	-	-	-	-	2	-	-	144	-
	Non-Deed Restricted		-	140	-	1	-	-	-	-	1	-		
Above Moderate		164	-	-	-	-	143	-	-	1	88	-	232	-
Total RHNA		**392**												
Total Units			**-**	**149**	**-**	**70**	**162**	**1**	**3**	**193**	**156**	**-**	**734**	**-**

Progress toward extremely low-income housing need, as determined pursuant to Government Code 65583(a)(1).

	5 Extremely low-Income Need		2015	2016	2017	2018	2019	2020	2021	2022	2023	6 Total Units to Date	7 Total Units Remaining
Extremely Low-Income Units*	58		-	-	11	-	-	-	-	13	-	**24**	**34**

*Extremely low-income houisng need determined pursuant to Government Code 65583(a)(1). Value in Section 5 is default value, assumed to be half of the very low-income RHNA. May be overwritten.

Note: units serving extremely low-income households are included in the very low-income RHNA progress and must be reported as very low-income units in section 7 of Table A2. They must also be reported in the extremely low-income category (section 13) in Table A2 to be counted as progress toward meeting the extremely low-income housing need determined pursuant to Government Code 65583(a)(1).

Please note: For the last year of the 5th cycle, Table B will only include units that were permitted during the portion of the year that was in the 5th cycle. For the first year of the 6th cycle, Table B will only include units that were permitted since the start of the planning period. Projection Period units are in a separate column.

Please note: The APR form can only display data for one planning period. To view progress for a different planning period, you may login to HCD's online APR system, or contact HCD staff at apr@hcd.ca.gov.

Jurisdiction	American Canyon	
Reporting Year	2022	(Jan. 1 - Dec. 31)
Planning Period	5th Cycle	01/31/2015 - 01/31/2023

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Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table C

Sites Identified or Rezoned to Accommodate Shortfall Housing Need and No Net-Loss Law

Project Identifier				Date of Rezone	RHNA Shortfall by Household Income Category				Rezone Type	Sites Description								
1				2	3				4	5	6	7	8		9	10	11	
APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Date of Rezone	Very Low-Income	Low-Income	Moderate-Income	Above Moderate-Income	Rezone Type	Parcel Size (Acres)	General Plan Designation	Zoning	Minimum Density Allowed	Maximum Density Allowed	Realistic Capacity	Vacant/Nonvacant	Description of Existing Uses	
Summary Row: Start Data Entry Below																		

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Jurisdiction	American Canyon	
Reporting Year	2022	(Jan. 1 - Dec. 31)

Table D

Program Implementation Status pursuant to GC Section 65583

Housing Programs Progress Report

Describe progress of all programs including local efforts to remove governmental constraints to the maintenance, improvement, and development of housing as identified in the housing element.

1	2	3	4
Name of Program	Objective	Timeframe in H.E	Status of Program Implementation
Program I.2.1: No-Net-Loss Evaluation Procedure	Policies 2.1.1, 2.1.2	Project review is ongoing with annual report to HCD	In 2018, one project has been approved on a 5-acre site. The project, HFP Church, utilized 1.5-acres for a new church, which reduces the number of developable housing units on the site by 33. The offset can be made up from the 1253 housing units entitled in the City's Watson Ranch Specific Plan that was approved on November 6, 2018.
Program I.2.2: Maintain Inventory of Developable Sites	Policy 2.1.1	Update annually	An inventory of housing sites and the number of permits issued in 2022 is available on the city's website and front counter for the Planning Division. The City approved the Broadway District Specific Plan (BDSP) in July 2018, which identified a capacity for up to 1,200 new units in the Broadway corridor. The City approved the Oat Hill multifamily project that proposes 291 apartment units on a site outside of the current inventory. The project required a Zone Change and General Plan Amendment.
Program I.2.3: Priority Sewer and Water Service for Affordable Housing	Policy 2.1.3	Dec-15	The City modified their Sewer and Water Service to put affordable housing as the first priority in July 2019. The update incorporated in ACMC Section 13.10.020.
Program I.2.4: Incentives for Second Units	Policy 2.2.4	Explore and adopt programs and/or incentives by 2018	The City adopted new guidelines and standards for Second Units, or Accessory Dwelling Units (ADUs), in 2017 and in 20202 to match the State's regulations. The new guidelines are available in ACMC section 19.39. New incentives for ADU's include the removal of water and wastewater capacity fees, the reduction in parking and fire sprinkler requirements, and the reduction in impact fees. In 2018, staff created two handouts that explains the building permit and zoning requirements for ADUs. In March 2019, the City joined the Napa-Sonoma ADU coalition to develop ADU outreach materials and fee estimating software. In 2022, the City approved a resolution to apply for the Permanent Local Housing Allocation (PLHA) program for a grant of up to $704,000 to assist in ADUs developed for low-income residents. The City is also scheduled to present revisions to the ADU Ordinance to comply with new state laws in early 2023.
Program I.2.5: Neighborhood Preservation Program	Policy 2.4.1	Ongoing	The City's Code Enforcement officer continues to implement this program

Program I.2.6: Residential Rehabilitation Loan Program	**Policies 2.5.1, 2.5.2, 2.5.3**	**Apply for funding annually**	**A $1 million grant was awarded in 2017. The City applied for a new $1 million CDBG grant, which includes $300,000 for owner-occupied rehabilitation assistance programs in February 2019, but was not awarded.**
Program I.2.7: Code Enforcement	**Policies 2.5.1, 2.5.2**	**Ongoing**	**The City's Code Enforcement officer continues to implement this program**
Program I.2.8: City-owned Land for Affordable Housing	**Policy 2.6.3**	**Review opportunities annually**	**No city-owned land was made available during this period.**
Program I.2.9: Employee Housing Program	**Policy 2.6.10**	**Begin exploring options by 2017 and adopt, as appropriate by 2019**	**Employee housnig is permitted by right in all single-family zoning districts. The City is on schedule to begin exploring options by 2017 and adopt, as appropriate by 2023.**
Program I.2.10: Affordable Housing Fund	**Policy 2.6.5**	**Review opportunities annually**	**The City approved up to $1 million in funding support for the Valley View Affordable Senior Apartment Project in 2016. The City received $102,302.40 in Affordable Housing Nexus fees in 2022.**
Program I.2.11: Incentives for Affordable Housing	**Policies 2.6.3, 2.6.5**	**Ongoing**	**The City required the Village at Vintage Ranch project increase the affordability term from 10 to 20 years for 8 Very Low and 8 Low income units in exchange for extending the term of their Design Permit approval. The City completed their update to the Density Bonus program to comply with the State's AB2753 Density Bonus Law in February 2019. In 2022, the City provided waivers for the Napa Cove project to reduce required parking, which provided 66 affordable apartment units. The City is currently reviewing a housing development project, the Residences at Napa Junction, that requested waivers for the development of 453 housing units that includes 46 very-low-income units.**
Program I.2.12: Density Bonus Program	**Policy 2.6.3**	**Prepare brochure by 2016**	**The density bonus brochure was posted to the City's website in 2016. See http://bit.ly/3x0U5k8 website link. The City updated their Density Bonus Ordinance in February 2019. The City approved two projects, the Lemos Pointe Apartments and the Napa Cove Apartments, which both utilized the Density Bonus program and requested concessions to design standards. The Lemos Pointe project consistsed of 186 affordable units and the Napa Cove project consisted of 66 affordable units. In 2022 the City received an application for the development of 453 apartment units, the Residents at Napa Junction. The Project utilizes the State Density Bonus program and requests several waivers. The project includes 46 very-low-income units. Staff provided third round comments to the applicant on February 9, 2023.**
Program I.2.13: Planned Development Process	**Policy 2.6.3**	**Ongoing**	**The Village at Vintage Ranch provides 16 units of low and very low income units.**
Program I.2.14: Assist in Accessing Grant Funding	**Policies 2.6.5, 2.6.6, 2.6.7**	**Review funding opportunities annually**	**The City received a HOME grant in 2017. The City applied for a CalHome Disaster Assistance funds in December 2019 and was awarded $2.2 million for down payment assistance. The funds are to assist low and moderate income households who are victims of the 2017-2018 fires in federally declared disasters. The City is also applying for $1 million in HOME funds in January of 2020 and $1 million in CalHome General Funds for OOR and ADU programs in February 2020. The City also applied for the SB2 Planning Grant in December 2019 and received $160,000 in funding to update their building permit software and update their Housing Element. The City applied for the LEAP grant in March 2020 and was awarded $160,000 for pro-housing efforts. The City will pursue OBAG 2 grant funds in 2023.**

Program I.2.15: Incentives for Lot Consolidation	**Policy 2.6.3**	**Identify appropriate incentives and post information on website by 2017**	**Staff completed two lot mergers in 2016. There were no requests for consolidation and/or re-use of small lots to create larger parcels with greater affordable housing development potential in 2022.**
Program I.2.16: Partner with the Housing Authority	**Policy 2.6.6**	**Ongoing**	**The City Council approved a 2-year contract with the City of Napa Housing Authority in June 2022.**
Program I.2.17: Inclusionary Housing Program	**Policy 2.6.8**	**Amend Ordinance in 2015**	**The City amended the Inclusionary Housing Program Ordinance in October 2019. The new program made the option of paying for in-lieu fees a last resort for developers.**
Program I.2.18: Conduct Nexus Study for Affordable Housing Fees	**Policy 2.6.9**	**Consider adopting fee in 2015**	**The Nexus Study and Commercial linkage fee was adopted in 2016.**
Program I.2.19: Preserve At-Risk Housing	**Policy 2.7.1**	**Ongoing**	**The City of Napa Housing Authority (HACN) worked with the Lodge apartments to encourage presrevation of 11 affordable units that were scheduled to expire in 2016. HACN worked with the property owner to provide financial incentives to tenants of the affordable units that were scheduled to vacate. In 2018, low-income tenants in 9 of the 11 units were vacated. The remaining 2 units to vacated in 2019. The City has ongoing efforts to preserve at-risk housing with the Napa Housing Authority.**
Program I.2.20: Monitor Section 8 Status	**Policy 2.7.1**	**2007-2014**	**The City of Napa Housing Authority monitors apartments for Section 8 status. In 2022, the Housing Authority administered 134 housing vouchers, in which 34 of them were for the Valley View Senior Apts.**
Program I.2.21: Mobilehome Park Rent Stabilization Program	**Policies 2.7.4**	**Ongoing**	**Ongoing**
Program I.2.22: Rental Assistance Program	**Policy 2.7.1**	**Seek funding for rental assistance when available.**	**The City Housing Authority secured 34 Section 8 vouchers for Homeless Veterans in 2016. The Housing Authority was awarded 11 Mainstream vouchers in 2018 and the City of American Canyon recieved those vouchers in 2019. The City applied for the CDBG Corona Response 1 (CARES grant) in August of 2020 and was awarded $98,000 to provide rental assistance. In 2022, the City signed affordable housing agreements with the Lemos Pointe Apartments for 186 affordable units and the Napa Cove Apartments for 66 affordable units.**
Program I.2.23: Rehabilitation Loan Program Outreach to Elderly Homeowners	**Policy 2.8.1**	**Prepare outreach materials by 2016**	**The City Housing Authority provides on-going marketting of outreach materials to elderly citizens regarding Rehabilitation Loan Programs. The outreach consists of flyers, workshops, and newspaper advertisements. The City Housing Authority also conducts outreach meetings at the Senior Center and the Family Center in American Canyon. Due to the Governor's Shelter-In-Place order to prevent the spread of COVID-19, physical outreach meetings have been suspended from 2020 to 2022. Outreach is planned for Fall of 2023.**
Program I.2.24: Facilitate Construction of Housing for Persons with Disabilities	**Policies 2.8.1, 2.8.5**	**Ongoing**	**The Valley View affordable Senior housing project will provide handicap accessibility and on-site supportive services. The project received building permits in 2017 and was completed in 2019.**
Program I.2.25: Outreach to Developmentally Disabled	**Policies 2.8.1, 2.8.5**	**Initiate coordination by 2016**	**In 2016, the City coordinated with North Bay Regional Center and has a link to their services. See http://bit.ly/2k626Np for a link to the website.**

Program I.2.26: Zoning for Small Group Homes	**Policy 2.8.8**	**2016**	**The City amended the zoning code in 2017 to classify small group homes, or residential care homes, as permitted uses for all residential zones.**
Program I.2.27: Zoning for Employee Housing	**Policy 2.8.6**	**2016**	**The City amended the zoning code in 2017 to add employee housing as a use classification with the class as a permitted use in all residential zones.**
Program I.2.28: Zoning for Single Room Occupancy	**Policy 2.8.1**	**2016**	**The City amended the zoning code in 2017 to add Single Room Occupancy facilities (SROs) use classification. The use is permitted in high-density residential zones.**
Program I.2.29: Facilitate Construction of Large Units	**Policy 2.8.2**	**Prepare fliers by 2017**	**The City prepared fliers in 2017 and they are available on the City's Housing website as well as the planning division counter. See http://bit.ly/3lgseK1 for a link to the webpage.**
Program I.2.30: Farmworker Housing	**Policy 2.8.6**	**Reach out to developers by 2017 and bi-annually thereafter**	**The City added web links to farmworker housing resources on the City's housing website. See https://bit.ly/3rwxmK4 for a link to the web site.**
Program I.2.31: Distribute Homeless Shelter Information	**Policy 2.8.9**	**Ongoing**	**The City of Napa Housing Authority provides this service on an ongoing basis.**
Program I.2.32: Distribute Fair Housing Information	**Policies 2.9.1, 2.9.2**	**Ongoing**	**The City of Napa Housing Authority provides this service on an ongoing basis. Fair Housing posters are displayed at City Hall.**
Program I.2.33: Fair Housing Event	**Policy 2.9.2**	**Annually**	**The City of Napa Housing Authority provides this service on an ongoing basis.**
Program I.2.34: Encourage Sustainable Building	**Policies 2.10.1, 2.10.3, 2.10.4**	**Ongoing**	**The City adopted a new Electric Vehicle Ordinance that streamlines permit processing for residential projects in 2019. The City adopted the Broadway District Specific Plan in 2019, which requires new development in the 300-acre district to provide 15% more energy reduction than the California Building Code requires.**
Program I.2.35: Energy Conservation Fact Sheet	**Policies 2.10.5, 2.10.7**	**Distribute fact sheet by 2016**	**The Energy Conservation Fact sheet was prepared and is available on the City's website. See https://bit.ly/3rwxmK4 for a link to the website.**
Program I.2.36: Adjust Utility Allowances for Green Affordable Housing Units	**Policy 2.10.1**	**2016**	**The City adopted new utility allowances for affordable housing units and allowed for the adjustments of utility allowances for Green Affordable Housing units in 2017. See https://bit.ly/3rwxmK4 for a link to the website. The City updates the utility allowances on an annual basis.**
Program I.2.37: Annual Housing Element Report	**Policies 2.11.1, 2.11.2**	**Annually**	**The annual Housing Element report is scheduled to be reviewed by the Planning Commission on February 2023 and the City Council at a public hearing on March 2023.**
Program I.2.38: Maintain Adequate Staffing	**Policy 2.11.1**	**Annual review of staffing levels**	**Review of staffing levels occurred in conjunction with the annual fiscal year budget.**

Jurisdiction	American Canyon	
Reporting Period	2022	(Jan. 1 - Dec. 31)
Planning Period	5th Cycle	01/31/2015 - 01/31/2023

ANNUAL ELEMENT PROGRESS REPORT

Housing Element Implementation

(CCR Title 25 §6202)

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table E

Commercial Development Bonus Approved pursuant to GC Section 65915.7

Project Identifier				Units Constructed as Part of Agreement				Description of Commercial Development Bonus	Commercial Development Bonus Date Approved
1				2				3	4
APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Very Low Income	Low Income	Moderate Income	Above Moderate Income	Description of Commercial Development Bonus	Commercial Development Bonus Date Approved
Summary Row: Start Data Entry Below									

Jurisdiction	American Canyon	
Reporting Period	2022	(Jan. 1 - Dec. 31)
Planning Period	5th Cycle	01/31/2015 - 01/31/2023

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table F

Units Rehabilitated, Preserved and Acquired for Alternative Adequate Sites pursuant to Government Code section 65583.1(c)

Please note this table is optional: The jurisdiction can use this table to report units that have been substantially rehabilitated, converted from non-affordable to affordable by acquisition, and preserved, including mobilehome park preservation, consistent with the standards set forth in Government Code section 65583.1, subdivision (c). Please note, motel, hotel, hostel rooms or other structures that are converted from non-residential to residential units pursuant to Government Code section 65583.1(c)(1)(D) are considered net-new housing units and must be reported in Table A2 and not reported in Table F.

Activity Type	Units that Do Not Count Towards RHNA+ Listed for Informational Purposes Only				Units that Count Towards RHNA + Note - Because the statutory requirements severely limit what can be counted, please contact HCD to receive the password that will enable you to populate these fields.				The description should adequately document how each unit complies with subsection (c) of Government Code Section 65583.1+. For detailed reporting requirements, see the chcklist here:
	Extremely Low-Income+	Very Low-Income+	Low-Income+	TOTAL UNITS+	Extremely Low-Income+	Very Low-Income+	Low-Income+	TOTAL UNITS+	https://www.hcd.ca.gov/community-development/docs/adequate-sites-checklist.pdf
Rehabilitation Activity									
Preservation of Units At-Risk									
Acquisition of Units									
Mobilehome Park Preservation									
Total Units by Income									

Jurisdiction	American Canyon	
Reporting Period	2022	(Jan. 1 - Dec. 31)
Planning Period	5th Cycle	01/31/2015 - 01/31/2023

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

Table F2
Above Moderate Income Units Converted to Moderate Income Pursuant to Government Code section 65400.2

For up to 25 percent of a jurisdiction's moderate-income regional housing need allocation, the planning agency may include the number of units in an existing multifamily building that were converted to deed-restricted rental housing for moderate-income households by the imposition of affordability covenants and restrictions for the unit. Before adding information to this table, please ensure housing developments meet the requirements described in Government Code 65400.2(b).

Project Identifier					Unit Types		Affordability by Household Incomes After Conversion							Units credited toward Above Moderate RHNA		Notes
1					2	3	4							5		6
Prior APN+	Current APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Unit Category (2 to 4,5+)	Tenure R=Renter	Very Low-Income Deed Restricted	Very Low-Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate- Income Deed Restricted	Moderate-Income Non Deed Restricted	Above Moderate-Income	Total Moderate Income Units Converted from Above Moderate	Date Converted	Notes
Summary Row: Start Data Entry Below																

Jurisdiction	American Canyon	
Reporting Period	2022	(Jan. 1 - Dec. 31)
Planning Period	5th Cycle	01/31/2015 - 01/31/2023

NOTE: This table must only be filled out if the housing element sites inventory contains a site which is or was owned by the reporting jurisdiction, and has been sold, leased, or otherwise disposed of during the reporting year.

Note: "+" indicates an optional field

Cells in grey contain auto-calculation formulas

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Table G
Locally Owned Lands Included in the Housing Element Sites Inventory that have been sold, leased, or otherwise disposed of

Project Identifier						
1				2	3	4
APN	**Street Address**	**Project Name+**	**Local Jurisdiction Tracking ID+**	**Realistic Capacity Identified in the Housing Element**	**Entity to whom the site transferred**	**Intended Use for Site**
Summary Row: Start Data Entry Below						

Jurisdiction	American Canyon	
Reporting Period	2022	(Jan. 1 - Dec. 31)

NOTE: This table is meant to contain an invenory of ALL surplus/excess lands the reporting jurisdiction owns

Note: "+" indicates an optional field
Cells in grey contain auto-calculation formulas

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

For Napa County jurisdictions, please format the APN's as follows:999-999-999-999

Table H
Locally Owned Surplus Sites

Parcel Identifier				Designation	Size	Notes
1	2	3	4	5	6	7
APN	**Street Address/Intersection**	**Existing Use**	**Number of Units**	**Surplus Designation**	**Parcel Size (in acres)**	**Notes**
Summary Row: Start Data Entry Below						

Jurisdiction	American Canyon	
Reporting Period	2022	(Jan. 1 - Dec. 31)
Planning Period	5th Cycle	01/31/2015 - 01/31/2023

NOTE: SB 9 PROJECTS ONLY. This table only needs to be completed if there were lot splits applied for pursuant to Government Code 66411.7 OR units constructed pursuant to 65852.21.
Units entitled/permitted/constructed must also be reported in Table A2. Applications for these units must be reported in Table A.

ANNUAL ELEMENT PROGRESS REPORT

Housing Element Implementation

Note: + indicates an optional field

Cells in grey contain auto-calculation formulas

Table I

Units Constructed Pursuant to Government Code 65852.21 and Applications for Lot Splits Pursuant to Government Code 66411.7 (SB9)

Project Identifier				Project Type	Date	Unit Constructed			
1				2	3	4			
APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Activity	Date	Very Low Income	Low Income	Moderate Income	Above Moderate Income
Summary Row: Start Data Entry Below									

Jurisdiction	American Canyon	
Reporting Period	2022	(Jan. 1 - Dec. 31)
Planning Period	5th Cycle	01/31/2015 - 01/31/2023

NOTE: STUDENT HOUSING WITH DENSITY BONUS ONLY. This table only needs to be completed if there were student housing projects WITH a density bonus approved pursuant to Government Code65915(b)(1)(F)

ANNUAL ELEMENT PROGRESS REPORT
Housing Element Implementation

Not

Cells in g

Table J

Student housing development for lower income students for which was granted a density bonus pursuant to subparagraph (F) of paragraph (1) of subdivision (b) of Section 6591

Project Identifier				Project Type	Date	Units (Beds/Student Capacity) Approved						
1				2	3	4						
APN	Street Address	Project Name+	Local Jurisdiction Tracking ID+	Unit Category (SH - Student Housing)	Date	Very Low- Income Deed Restricted	Very Low- Income Non Deed Restricted	Low- Income Deed Restricted	Low- Income Non Deed Restricted	Moderate- Income Deed Restricted	Moderate- Income Non Deed Restricted	Above Moderate-Income
Summary Row: Start Data Entry Below												

Jurisdiction	American Canyon	
Reporting Year	2022	(Jan. 1 - Dec. 31)
Planning Period	5th Cycle	01/31/2015 - 01/31/2023

Building Permits Issued by Affordability Summary		
Income Level		Current Year
Very Low	Deed Restricted	26
	Non-Deed Restricted	2
Low	Deed Restricted	39
	Non-Deed Restricted	0
Moderate	Deed Restricted	0
	Non-Deed Restricted	1
Above Moderate		88
Total Units		**156**

Note: Units serving extremely low-income households are included in the very low-income permitted units totals

Units by Structure Type	Entitled	Permitted	Completed
SFA	0	0	0
SFD	0	88	0
2 to 4	0	0	0
5+	0	66	0
ADU	6	2	4
MH	0	0	0
Total	**6**	**156**	**4**

Housing Applications Summary	
Total Housing Applications Submitted:	10
Number of Proposed Units in All Applications Received:	752
Total Housing Units Approved:	6
Total Housing Units Disapproved:	0

Use of SB 35 Streamlining Provisions	
Number of Applications for Streamlining	0
Number of Streamlining Applications Approved	0
Total Developments Approved with Streamlining	0
Total Units Constructed with Streamlining	0

Units Constructed - SB 35 Streamlining Permits			
Income	Rental	Ownership	Total
Very Low	0	0	0
Low	0	0	0
Moderate	0	0	0
Above Moderate	0	0	0
Total	0	0	0

Cells in grey contain auto-calculation formulas

Jurisdiction	American Canyon	
Reporting Year	2022	(Jan. 1 - Dec. 31)

ANNUAL ELEMENT PROGRESS REPORT
Local Early Action Planning (LEAP) Reporting
(CCR Title 25 §6202)

Please update the status of the proposed uses listed in the entity's application for funding and the corresponding impact on housing within the region or jurisdiction, as applicable, categorized based on the eligible uses specified in Section 50515.02 or 50515.03, as applicable.

Total Award Amount	$ -	*Total award amount is auto-populated based on amounts entered in rows 15-26.*

Task	$ Amount Awarded	$ Cumulative Reimbursement Requested	Task Status	Other Funding	Notes

Summary of entitlements, building permits, and certificates of occupancy (auto-populated from Table A2)

Completed Entitlement Issued by Affordability Summary		
Income Level		Current Year
Very Low	Deed Restricted	0
	Non-Deed Restricted	2
Low	Deed Restricted	0
	Non-Deed Restricted	4
Moderate	Deed Restricted	0
	Non-Deed Restricted	0
Above Moderate		0
Total Units		**6**

Building Permits Issued by Affordability Summary		
Income Level		Current Year
Very Low	Deed Restricted	26
	Non-Deed Restricted	2
Low	Deed Restricted	39
	Non-Deed Restricted	0
Moderate	Deed Restricted	0
	Non-Deed Restricted	1
Above Moderate		88
Total Units		**156**

Certificate of Occupancy Issued by Affordability Summary		
Income Level		Current Year
Very Low	Deed Restricted	0
	Non-Deed Restricted	2
Low	Deed Restricted	0
	Non-Deed Restricted	2
Moderate	Deed Restricted	0
	Non-Deed Restricted	0
Above Moderate		0
Total Units		**4**

TITLE

Chicken Guy Restaurant Conditional Use Permit

RECOMMENDATION

Continue the Chicken Guy Restaurant Conditional Use Permit public hearing to May 25, 2023 (File No. PL22-0021)

CONTACT

William He, AICP, Senior Planner

BACKGROUND & ANALYSIS

Site Information

General Plan Designation	Neighborhood Commercial (CN)
Zoning District	Neighborhood Commercial (CN)
Site Size	1.03-acres
Present Use	Undeveloped Lot
Surrounding Zoning and Uses	North: CN / Walgreens pharmacy South: Public (P) / Veterans Park East: Mobile Home Park (MHP) / Mobile Home Park residences West: CN / Vacant Lot owned by Union Pacific Railroad
Access	Site access is provided off Broadway St and American Canyon Rd

Proposed Development: Chandi Hospitality Group proposes to develop a 2,818 square foot quick-serve Chicken Guy restaurant with drive-thru service on a vacant retail parcel at 200 American Canyon Road. The shopping center located at the northwest corner of Broadway and American Canyon Drive includes a Walgreens Pharmacy, a 7-Eleven convenience store, and a second vacant retail pad.

The proposed Chicken Guy restaurant features seating capacity for 70 people with an indoor dining room an outdoor covered dining porch and will operate from 8:00 AM to 12:00 AM daily. The site

includes 29 parking spaces and approximately 3,994 square feet of landscaping. The restaurant is a franchise developed by Food Network celebrity, Guy Fieri.

The Project was scheduled for the agenda of the Planning Commission meeting of February 23, 2023 and continued upon the property-owner's request to the meeting of March 23, 2023. A record of the February meeting is available at this link.

On March 23, 2023, the Planning Commission received staff's presentation and public comments. One of the major concerns of the public was the drive thru component, which may contribute to an increase to greenhouse gas emissions. The Planning Commission continued the hearing to April 27, 2023, and requested the applicant to submit a calculation prepared by a registered traffic engineer that estimates the project's daily generation of net new trips as described in the conditions of approval. A record of the March meeting is available at this link.

On April 14, the applicant informed staff that they will not complete the traffic trip generation report in time for the April public hearing. A continuance of the Chicken Guy project to the next available public hearing will provide more time for the applicant to complete their traffic report. A copy of the applicant's request for more time is available as Attachment 1.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Economic Development and Vitality: "Attract and expand diverse business and employment opportunities."

FISCAL IMPACT

The Chicken Guy Restaurant Conditional Use Permit application required a developer's deposit for review and processing, so there is no fiscal impact for staff's time.

ENVIRONMENTAL REVIEW

The Broadway District Specific Plan (BDSP) Final Environmental Impact Report (FEIR) evaluated the development of the 292-acre site area along the Broadway corridor. The City made findings of overriding consideration for significant and unavoidable impacts. The Chicken Guy Restaurant project site and the amount of development are consistent with the FEIR. In accordance with CEQA Section 15168 (c), staff reviewed the project with a written checklist, supplemental CEQA analysis submitted by applicant, and evaluated the site and operation. The checklist determined that, with the mitigation measures prescribed, the project's environmental effects were within the scope of the program FEIR and there is no substantial evidence that there are changed circumstances requiring further CEQA review. Additionally, the proposed conditional use permit is exempt from CEQA under Categorical Exemption, Class 32 (Section 15332) – In-fill Development Projects.

ATTACHMENTS:

1. Applicant request for continuance

From: Joti Chandi <joti@chandihospitality.com>
Sent: Friday, April 14, 2023 10:46 AM
To: William He <whe@cityofamericancanyon.org>
Cc: Sonu Chandi <sonu@chandihospitality.com>; Brent Cooper <bcooper@cityofamericancanyon.org>; Julio Tinajero <julio@milestone-ae.com>; Jason Holley <jholley@cityofamericancanyon.org>; Nicolle Hall <nhall@cityofamericancanyon.org>
Subject: Re: [External] Possible Housing at Chicken Guy Restaurant

William,
The traffic trip generation report will be ready after 4/19. We need to move our planning commission meeting to the next meeting.
Thanks

On Fri, Apr 14, 2023 at 10:36 AM William He <whe@cityofamericancanyon.org> wrote:

Hi Joti and Sonu,

I wanted to check in with you on the progress of the traffic trip generation report. The staff report must be published next week, and the traffic report is required for it to proceed. Please provide the report by **Wednesday (4/19)** so that staff can review and attach it to the report.

Many thanks!

William He, AICP

Senior Planner, Community Development Department

City of American Canyon | 4381 Broadway Street, Suite 201 | American Canyon, CA 94503

707 647 4337 | whe@cityofamericancanyon.org

www.cityofamericancanyon.org

TITLE

Sun Square Mixed-Use Design Permit

RECOMMENDATION

Approve the Sun Square Mixed Use Project Design Permit for development of four mixed-use buildings consisting of twenty apartment units and 7,800 square feet of office space on a one-acre lot in the Community Commercial zoning district at 425 Napa Junction Rd, APN 059-020-003 (File no. PL21-0020)

CONTACT

William He, AICP, Senior Planner

BACKGROUND & ANALYSIS

Table 1: Site Information

General Plan Designation	Community Commercial (CC)
Zoning District	Community Commercial (CC)
Site Size	1.0-acre
Present Use	Single-family residences
Surrounding Zoning and Uses	North: CC / Canyon Ridge Apartments South: CC / Walmart Supercenter East: CC / Vacant West: CC / Walmart parking lot
Access	Site access is provided off Napa Junction Rd

Summary: The project is located on a one-acre site in the Community Commercial (CC) Zone in the Broadway District Specific Plan (BDSP) at 425 Napa Junction Rd. The site has two residential structures, which were developed prior to the City's incorporation. The CC zone permits mixed-use development through a Design Permit. The site is ready for all utility connections. The draft resolution with exhibits is available as Attachment 1. The location map and photos of the site are available as Attachment 2 and 3.

Proposed Development: The Sun Square Mixed Use Project consists of four two-story buildings with 7,800 SF of offices on the ground floor and 20 one-bedroom apartments on the ground and second

floors. The apartments are approximately 750 SF. Three of the 20 units will be made affordable at the following levels: one at very-low income, one at low-income, and one at moderate income.

The site will be supported with 40 parking spaces and 16,000 SF of landscaping. The applicant will provide frontage improvements on Napa Junction Road, which includes a new sidewalk and undergrounding two overhead utility poles.

The project construction will take place in two phases. The first phase includes Building 1 which consists of 5 apartment units, 1,950 SF of office, and 13 parking spaces. The one-bedroom apartments will range from 616 to 750 SF. The proposed office tenant would be offices and classrooms for disabled adults. The remaining three buildings will be completed in the second phase. Each building will have an accessible living unit on the ground floor. According to the American Canyon Municipal Code (ACMC) Section 19.41.060, the project is required to start construction within two years of receiving the entitlement or the Design Permit shall be null and void.

The project architecture complies with the "Modern Industrial" style in the Broadway District Specific Plan. According to the applicant's architect, the four buildings will have clean vertical and horizontal lines. The brick surface provides a natural, weathered appearance. The project incorporates large fenestration with industrial window systems and high ceilings, which are all typical in modern industrial buildings. The balcony railing utilizes steel angle iron and stainless-steel cables that are all within the modern industrial vocabulary. The architectural narrative and photo renderings of the proposed site are available as Attachments 4 and 5.

The Sun Square project is consistent with the Broadway District Specific Plan Environmental Programmatic Impact Report (PEIR). The applicant provided a Cultural Resources Study, a Biology Study, Geotechnical Study, and focused traffic and parking study. The reports indicated that the BDSP PEIR anticipated development of the project area, and the project would not result in any new or more severe impacts beyond what was addressed in the BDSP EIR. Staff also reviewed the project with a written checklist in accordance with CEQA and determined that, with the mitigation measures prescribed, the project environmental effects were within the scope of the BDSP PEIR. Environmental studies are available as Attachments 6 to 9.

Site Specific Issues:

Landscaping: The BDSP requires new development to incorporate existing trees as far as possible. The applicant reviewed the existing trees and shrubs and found that they were not healthy. The applicant proposed a new landscaping plan that installs new trees, shrubs, and ground cover at the building setbacks. The Project will remove all 19 existing trees and replace them with 42 new trees. The new landscaping will use recycled water for irrigation. The tree removal plan is included in the landscaping plan, sheet L1.2, and is available in Attachment 1 Exhibit B.

Traffic: The applicant provided a report authored by W-Trans that identifies the number of net new trips generated by the project. According to the report, the project will generate 201 net new trips, consisting of multifamily housing and general office uses. The applicant will be required to pay traffic impact fees prior to the issuance of the construction permits. Currently, the traffic impact fee for 201 net new trips is $142,911 ($711 times 201 net new trips).

Parking: According to the ACMC Section 19.21.030, the project will require 61 spaces for the 20 apartment units and 7,800 SF of office space. The project provides 40 parking spaces, which includes a reduction request of 21 parking spaces. The applicant's traffic report (W-Trans, 2022) included a shared-use analysis that estimates the parking demand for mixed uses. The analysis shows that the residents will leave the site around the time that the office users arrive, making it suitable to share 40 parking spaces. Because of the shared usage, the analysis concluded that 38 parking spaces are necessary for the site. According to the study, the provision of 40 parking spaces will adequately serve the mixed-use site.

Table 2 explains the project parking requirement and proposal. 40 parking spaces will not be assigned to the residences or the office tenant, but available on a first come, first serve basis. 20 parking spaces will be covered and placed on the east side of the site. The applicant has shown on the site plan that the covered parking structure will feature solar PV panels.

Table 2: Sun Square Parking Compliance

Phase I	ACMC Criteria	ACMC Required Parking	ITE Paring Generation Rate	Shared Parking	Proposed
Multifamily one-bedroom units x 5	1 covered space per unit, plus 0.5 uncovered space per unit, plus 1 uncovered space per 4 units	8.5	(1.52 rate) 8	9	13
General Office x 1,950 SF	1 space per 300 SF	6.5	(3.30 rate) 6		
	Total	16	14	9	**13**
Full Buildout					
Multifamily one-bedroom units x 20	1 covered space per unit, plus 0.5 uncovered space per unit, plus 1 uncovered space per 4 units	35	(1.52 rate) 30	38	40
General Office x 7,800 SF	1 space per 300 SF	26	(3.30 rate) 26		
	Total	61	56	38	**40**

Shared parking reduces the overall need for parking spaces. But if one or more tenants own

numerous vehicles that are not moved on a regular basis, it can cause a parking shortage for the remaining tenants. Staff has included a condition of approval that requires the property owner to submit a parking management plan that addresses tenant vehicle limits, guest parking standards, vehicle parking time duration, and other factors to ensure sufficient availability of parking stalls for the project tenants.

Overhead Utility Undergrounding: BDSP Policy 3-4 requires all existing overhead utility poles on-site and along the property frontage to be placed underground in conjunction with development of the site or as a deferred requirement subject to approval of the City Engineer. The frontage of 425 Napa Junction contains overhead utilities and, at a minimum, the two utility poles and approximately 140 linear feet of overhead utilities will be undergrounded. A condition of approval has been added that requires the applicant to remove the two poles and overhead utility prior to the building permit issuance. Additionally, the applicant is required to provide preliminary utility undergrounding plans from a joint trench consultant prior to the issuance of the site improvement plans. The City may request the project to underground a third utility pole, to the east of the site, but it would be considered an oversized method of complying with the condition and the applicant may qualify for an reimbursement for that scenario.

Public Outreach: Staff and the applicant conducted public outreach for the Project. On January 4, 2023, staff mailed an initial notice announcing the project to all property owners within 300 feet. The project was also added to the Community Development Department's website for active planning projects. On April 11, 2023, staff mailed an official public hearing notice to all property owners within 300 feet of the project site and sent e-mails to all interested stakeholders in the City's Gov-Delivery mailing list. On April 21, 2023, the staff report was published on the City's website. The mailings provided a link that allowed people to provide comments or questions regarding the project. The comments link will remain open until 3:00 pm on the Planning Commission Hearing Day.

As of this writing, staff received four responses that opposed the project. Concerns related to traffic, the housing construction, and a desire for more stores and restaurants in the City. Staff prepared some responses to the concerns. A copy of the received comments with staff's responses is included as Attachment 10.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Economic Development and Vitality: "Attract and expand diverse business and employment opportunities."

FISCAL IMPACT

The Sun Square Mixed Use Project design permit application required a developer's deposit for review and processing, so there is no fiscal impact for staff's time.

ENVIRONMENTAL REVIEW

The Broadway District Specific Plan (BDSP) Final Environmental Impact Report (FEIR) evaluated the development of the 292-acre site area along the Broadway corridor. The City made findings of overriding consideration for significant and unavoidable impacts. The Sun Square Mixed Use project site and the amount of development are consistent with the FEIR. In accordance with CEQA Section 15168 (c), staff reviewed the project with a written checklist, supplemental CEQA analysis submitted by applicant, and evaluated the site and operation. The checklist determined that, with the mitigation measures prescribed, the project's environmental effects were within the scope of the program FEIR and there is no substantial evidence that there are changed circumstances requiring further CEQA review. Additionally, the proposed conditional use permit is exempt from CEQA under Categorical Exemption, Class 32 (Section 15332) – In-fill Development Projects.

ATTACHMENTS:

1.0. Sun Square - PC Resolution
1.1. EXHIBIT A - BDSP Program EIR Evaluation Sun Square
1.2. EXHIBIT B - Sun Square Plans
1.3. EXHIBIT C - Confirmation of Conditions
1.4. EXHIBIT D - Yocha Dehe Protocols
2. Sun Square - Location Map
3. Sun Square - Site Photographs
5. Sun Square - Photo Rendering and Elevations
4.0 Sun Square - Architectural Narrative
6. Sun Square - Cultural Study
7. Sun Square - Biological Report
8. Sun Square - Geotechnical Study Report
9. Sun Square - Traffic and Parking Study
10. Sun Square - Public Comments

RESOLUTION NO. 2023-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON, CALIFORNIA, APPROVING A DESIGN PERMIT FOR DEVELOPMENT OF FOUR MIXED-USE BUILDINGS CONSISTING OF TWENTY APARTMENT UNITS AND 7,800 SQUARE FEET OF OFFICE SPACE ON A ONE-ACRE LOT IN THE COMMUNITY COMMERCIAL ZONING DISTRICT AT 425 NAPA JUNCTION RD, APN 059-020-003 (FILE NO. PL21-0020)

WHEREAS, on August 2, 2021, Max Konan, filed a Design Permit application (File No. PL21-0020) for the Sun Square Mixed Use Project "Project", which consists of four mixed-use buildings consisting of 20 apartment units and 7,800 square feet of office space on a 1-acre lot in the Community Commercial zoning district at 425 Napa Junction Rd, APN 059-020-003; and

WHEREAS, the Project includes 40 parking spaces and approximately 14,572 square feet of landscaping; and

WHEREAS, in accordance with the American Canyon Municipal Code (ACMC) Section 19.28(A)(2), the project will provide one very low-income unit, one low-income unit, and one moderate income unit for a total of three affordable units; and

WHEREAS, the project site currently consists of a two single-family homes, which are non-conforming in the Community Commercial zoning district; and

WHEREAS, mixed-use development is a permitted use in the Community Commercial zoning district; and

WHEREAS, a duly-noticed public hearing was held by the City of American Canyon Planning Commission on April 27, 2023 on the subject application, at which time all those in attendance were given the opportunity to speak on this proposal; and

WHEREAS, the Planning Commission considered all of the written and oral testimony presented at the public hearing in making its decision on April 27, 2023; and

NOW THEREFORE BE IT RESOLVED that the American Canyon Planning Commission hereby makes the following CEQA findings and Design Permit findings set out in Sections 1 and 2 to approve Design Permit PL21-0020 for the Project, subject to the conditions of approval set out in Section 3.

SECTION 1: CEQA FINDINGS

The Broadway District Specific Plan (BDSP) Final Environmental Impact Report (FEIR) evaluated the development of the 292-acre site area along the Broadway corridor. The City made findings of overriding consideration for significant and unavoidable impacts. The Sun Square Mixed Use Project site and the amount of development are consistent with the FEIR. In accordance with CEQA Section 15168 (c), staff reviewed the project with a written checklist, supplemental CEQA analysis submitted by applicant, and evaluated the site and operation. The checklist determined that, with the mitigation measures prescribed, the project's environmental effects were within the scope of the program FEIR and there is no substantial

evidence that there are changed circumstances requiring further CEQA review. An analysis of the Project consistent with the BDSP Final EIR is included as Exhibit A to this Resolution.

Additionally, the proposed conditional use permit is exempt from CEQA under Categorical Exemption, Class 32 (Section 15332) – In-fill Development Projects. The project meets all the characteristics of Class 32 listed below.

a. The project is consistent with the applicable general plan designation and all appliable general plan policies as well as with applicable zoning designation and regulations.
b. The proposed development occurs within city limits on a project site of no more than 5 acres substantially surrounded by urban uses.
c. The project site has no value as habitat for endangered, rare or threatened species.
d. Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
e. The site can be adequately served by all required utilities and public services.

SECTION 2: DESIGN PERMIT FINDINGS

Approval of the Design Permit requires that all the following findings be made, pursuant to American Canyon Municipal Code Section 19.41.050:

A. The project complies with all applicable provisions of the Zoning Ordinance and any applicable approvals granted for the project by any decision-making authority.

The proposed mixed-use development complies with the height and bulk regulations that apply to the project site. In accordance with ACMC Section 19.21.030(B)(3), shared parking arrangements may be approved if the following requirements are met: (1) the applicant provided substantial evidence and documentation that a sufficient number of spaces are being provided to meet the parking demand with the W-Trans Traffic and Parking Study (September, 2022); (2) all shared parking spaces are located with reasonable access and separated from the street; (3) the project provides reasonable pedestrian connections to the shared parking spaces, and (4) the project will be required to record a deed restriction, through a CC&R or other agreement, ensuring that required parking is provided and the operating characteristics of all participating uses are maintained.

B. The project and its design comply with any applicable design guidelines.

The site and design of the project complies with the Community Commercial zone development standards identified in BDSP Table 2-13:

	Required	*Proposed*	*Compliance*
Minimum area	*1 acre*	*1.0 acre*	*Yes*
Minimum width	*200 ft*	*300 ft*	*Yes*
Minimum depth	*100 ft*	*145 ft*	*Yes*
Minimum front yard building setback	*20 ft*	*20.5 ft*	*Yes*
Minimum side yard	*10 ft*	*10 ft*	*Yes*
Minimum rear yard	*10 ft*	*10 ft*	*Yes*
Maximum density (mixed-use)	*20 du/ac*	*20 units*	*Yes*
Floor area ratio (FAR)	*1.5 FAR*	*1.5 FAR*	*Yes*
Maximum number of stories	*3*	*2*	*Yes*
Maximum building height	*54 ft*	*27'*	*Yes*

C. The project and its design complies with all applicable general plan policies.

The General Plan designated the design standards to the Broadway District Specific Plan. As discussed in Section B above, the project complies with the BDSP Design Guidelines.

D. The project complies with applicable policies and development standards of the Napa Airport Industrial Area Specific Plan.

The project is within the E-zone of the Airport Land Use Compatibility plan and multifamily dwellings and offices are permitted within the zone.

E. The project's quality and character are compatible with the surrounding area, unless physically deteriorated or blighted, and will not be materially detrimental to existing development.

The project redevelops two single-family homes into a multifamily mixed-use development. The development would change the non-conforming use into a permitted use, which is more aligned with the Community Commercial zone. The project site has the Canyon Ridge Apartments to the north and the Walmart shopping center to the west and south. The mixed-use development will bring a compatible use to the site and is not detrimental to the existing development. Architectural features are discussed below in item #G.

F. The proposed design is compatible with existing development in the area in terms of scale, height, bulk, proportion, materials, cohesiveness, color, and the preservation of privacy.

The proposed mixed-use development complies with the BDSP Broadway Community Commercial zone development standards outlined in BDSP Table 2-13. The architecture and aesthetics are compatible with the surrounding neighborhood.

G. The design improves the community's appearance by avoiding both excessive variety and monotonous repetition.

The Sun Square Mixed-Use Project consists of four two-story buildings that are 27 feet high. The lot is rectangular with the shorter length of the lot facing the street, which makes only two of the buildings visible. The site will also be screened with landscaping on all four sides.

The new multifamily apartments architecture complies with the "Modern Industrial" style permissible in the Broadway District Specific Plan. According to the applicant's architect, the project consists of four buildings includes clean vertical and horizontal lines. The brick surface provides a natural, weathered appearance. The project incorporates large fenestration with industrial window systems and high ceilings, which are all typical in modern industrial buildings. The balcony railing utilizes steel angle iron and stainless steel cables that are all within the modern industrial vocabulary.

H. The proposed design promotes a harmonious transition in terms of scale and character between areas of different general plan land use designations and zoning districts.

The project consists of four mixed-use buildings, which are setback from the property line along Napa Junction Rd. The proposed site will be supported with landscaping and a perimeter fence. The buildings are a Modern Industrial aesthetic and promote a harmonious transition between the Canyon Ridge apartments in the north and the Walmart shopping center in the west and south. The site does not border other zoning districts, so additional transitions are not necessary.

I. The proposed design provides for adequate and safe on-site vehicular and pedestrian circulation.

The site has an entry from Napa Junction Road. The site has clear site lines for the entrance and the parking lot provides ADA accessible parking stalls. The site has a continuous path of travel for pedestrians that starts at the sidewalk along Napa Junction Rd. The site will safely accommodate vehicular and pedestrian circulation.

All the required findings to approve the Design Permit for the Project are made, so the Design Permit is approved subject to the conditions set out in the following section.

SECTION 3. CONDITIONS OF APPROVAL

General

1. The Design Permit approval is granted for the development of 20 dwelling units with 9,820 SF of offices on a one-acre lot at 425 Napa Junction Rd, APN 059-020-003. The site includes 40 parking spaces and approximately 6,558 SF of landscaping. The one-acre site is in the Community Commercial zoning district, shown on Exhibit B, which is on file in the Community Development Department, except as modified by conditions contained in this approval. Exhibit B includes the following:
    a. Site Plan and Architectural Plans prepared by John Howland Architecture, from Vallejo, CA, submitted on February 16, 2023.
    b. Landscaping Plans prepared by MacNair Landscape Architecture, from Kenwood, CA, dated submitted on February 16, 2023.

2. The applicant shall defend, indemnify, and hold harmless the City of American Canyon ("City"), its elected and appointed officials, officers, employees, attorneys, representatives, boards, commissions, consultants, volunteers and agents from and against all claims, actions, including actions to arbitrate or mediate, damages, losses, judgments, liabilities, expenses and other costs, or proceedings against the City, its elected and appointed officials, officers, employees, attorneys, representatives, boards, commissions, volunteers, or agents to attack, modify, set aside, void, or annul an approval, conditional approval, permit, entitlement, environmental document, environmental clearance, mitigation plan, or any other document or any of the proceedings, acts, or determinations taken, done, or made prior to granting of such approval, conditional approval, permit, entitlement, environmental clearance, environmental document, mitigation plan, or other documents, by the City, including, without limitation, an action against an advisory agency, appeal board, or legislative body within the applicable limitation period.

    The obligation to defend, indemnify and hold the City harmless shall include the payment of all legal costs and attorney's fees (including a third party award of attorney's fees), arising out of, resulting from, or in connection with the City's act or acts leading up to and including approval of any environmental document or mitigation plan granting approvals to the applicant, incurred on behalf of, or by, the City, its elected and appointed officials, officers, employees, representatives, attorneys, boards, commissions, volunteers and agents in connection with the defense of any claim, action, or proceeding challenging the entire or a portion of an approval, conditional approval, permit, entitlement or any other document of any related claim.

    The obligation to defend, indemnify, and hold the City harmless shall include, but not be limited to, the cost of preparation of any administrative record by the City, staff time, copying costs, court costs, or attorney's fees arising out of a suit or challenge contesting the adequacy of a permit, approval,

conditional approval, entitlement, environmental document, mitigation plan, environmental clearance, or any other document or approval related to the applicant's project.

The City will promptly notify the applicant of any claim, action, or proceeding and will cooperate fully in the defense. If the City fails to promptly notify the applicant of any claim, action, or proceeding, or the City fails to cooperate fully in the defense, the applicant shall not be responsible to defend, indemnify, or hold harmless the City.

In the event a legal challenge to a City permit, approval, conditional approval, environmental document, environmental clearance, mitigation plan, entitlement or any other document, proceeding, determination, or action related to the applicant's project is successful, and an award of attorneys' fees is granted against the City, the applicant shall be responsible to timely pay the full amount of such an award.

3. The approval shall become effective on the expiration of the appeal period, ten calendar days following the decision, unless an appeal to the City Council is filed. An appeal may be filed with the Community Development Director by filling out an Appeal Form accompanied by a fee of $751.

4. This approval is also subject to return of the "Applicant Confirmation of Conditions of Approval" form signed by the property owner as incorporated in this Resolution as Exhibit A. Should an appeal period end on a Saturday, Sunday or holiday, the final day for filing an appeal shall be the following Monday, or the next business day following a holiday. If there is no appeal, this approval will be final on May 1, 2023.

5. The applicant is responsible for paying all charges related to the processing of this discretionary case application within 30 days of the issuance of the final invoice or prior to the issuance of building permits for this project, whichever occurs first. Failure to pay all charges shall result in delays in the issuance of required permits or the revocation of the approval of this application.

6. The date upon which the approval is final shall be considered the day of the imposition of the fees, dedications, reservations and exactions required by these conditions approval for the purposes of protesting the imposition pursuant to California Government Code Section 66020.

7. If no construction permits have been issued and construction commenced within two years of the date upon which this approval is final, the approval shall become null and void and of no effect (see ACMC 19.41.060(A). An extension of time may be granted by the Community Development Director upon the written request by a responsible party before the expiration of the two-year period, provided that the Director can make the findings that there have been no substantial changes in the approved plans, and that there has been no change of circumstances which would prevent any of the required findings of approval to be made.

8. Prior to obtaining a building permit, all parties working on the project must obtain a business license from the City.

9. The Property Owner is responsible for removing any graffiti that occurs on the site within 48 hours.

Planning

10. The conditions of this Permit shall be printed on the first sheet of each plan set submitted for a building permit pursuant to this Design Permit, under the title "Design Permit Conditions". The second sheet may also be used if the first sheet is not of sufficient size to list all the conditions. The sheet(s) containing the conditions shall be of the same size as those sheets containing the construction drawings; 8-1/2" by 11" sheets are not acceptable.

11. The Design Permit approval does not include signs. Prior to the installation of signs, submit a new sign program application for all signs proposed for the project site.

12. Prior to the issuance of any building permit, the applicant shall prepare an affordable housing agreement in accordance with the American Canyon Municipal Code (ACMC) Section 19.28.080 that includes the following:

    a. Restricts the occupancy of 3 units of the mixed-use apartment project units to tenants certified by the City as moderate, low-, and very low- income households as defined by the Zoning Ordinance for at least 55 years. The maximum monthly rents for these low- and very-low- income shall be limited to Housing unit affordability will consist of the following:
        i. 1 unit at or below 50% area medium income (AMI)
        ii. 1 unit at or below 80% AMI
        iii. 1 unit at or below 120% AMI
    b. Complies with the Affordable Housing Local Preference policy Resolution 2007-46 and Resolution 2007-48.

13. Prior to building permit issuance, the applicant shall submit final landscape plans that comply with the State of California Water Efficient Landscape Ordinance. The landscape architect shall document and attest to the compliance with the State ordinance on the landscape plans. The plans shall incorporate the following requirements:
        a. The plans shall include trees, shrubs, and ground cover.
        b. All trees must be 15 gallons in size or larger.

14. Prior to the issuance of a certificate of occupancy, the project landscape architect shall certify that all plant materials have been installed in accordance with the approved landscape plan.

15. All tree stakes and ties shall be removed within one year following installation or as soon as trees are able to stand erect without support.

16. Clear sight triangles shall be maintained at all driveways. Low-lying plantings and other site fixtures, including signs, shall be no taller than 30 inches within the site vision triangles.

17. All planting shall be maintained in good growing condition. Such maintenance shall include, where appropriate, pruning, mowing, weeding, cleaning of debris and trash, fertilizing and regular watering. Whenever necessary, planting shall be replaced with other plant materials to ensure continued compliance with applicable landscaping requirements. Required irrigation systems shall be fully maintained in sound operating condition with heads periodically cleaned and replaced when missing to insure continued regular watering of landscape areas, and health and vitality of landscape materials.

18. According to BDSP Policy 3-2, roof access ladders mounted to the building exterior walls are not permitted.

19. According to BDSP Policy 3-2, projects are required to incorporate equipment and service items such as: garbage storage, loading docks, vents, AC compressors, roof access ladders, meters, and transformers into the building design and/or landscape areas to minimize noise and visual impacts on pedestrian areas, streets and adjacent properties. Roof mounted mechanical equipment shall be screened with a parapet equal in height to the highest equipment facility.

20. According to BDSP Policy 3-4, existing overhead utility poles on-site and along the property frontage to be placed underground in conjunction with development of the site or as a deferred requirement subject to approval of the City Engineer. The Project site contains two utility poles and overhead utilities. Prior to the issuance of the site improvement plans, identify the undergrounding of the utility poles and overhead utilities. Prior to the certificate of occupancy, complete the utility undergrounding.

21. Consistent with General Plan Policy H-8.12, the "Yocha Dehe Wintun Nation Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation" shall be implemented in the event any Native American human remains, grave goods, ceremonial items, and items of cultural patrimony are found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground disturbing activity. A copy of the "Yocha Dehe Wintun Nation Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation" is included in this Resolution as Exhibit D.

22. Prior to issuance of the first building permit, the applicant shall submit an address plan for each residential unit and office suite.

23. According to ACMC Section 19.21.030(B)(3), prior to the issuance of the first building permit, the applicant shall submit a draft CC&R, deed restriction, or other agreement, to the satisfaction of the City Attorney and Community Development Director that ensures the shared parking addresses tenant vehicle limits, guest parking standards, vehicle parking time duration, and other factors to ensure sufficient availability of parking stalls for the project tenants.

24. Prior to issuance of an occupancy permit for the first building permit, the applicant shall record the parking management plan CC&R, deed restriction, or other agreement approved by the City Attorney and Community Development Director.

Building and Safety

25. Prior to the final inspection, the applicant shall submit a letter of certification to the Building Official from the project architect, civil engineer, and landscape architect certifying that all improvements have been constructed in accordance with the approved building plans.

26. Prior to the final inspection, a Certified Access Specialist (CASp) shall submit a letter certifying that all improvements have been constructed in compliance with applicable state and federal accessibility standards. Determination of consistency shall be subject to the review and approval of the Building Official.

27. Construction and grading activities on the site shall be limited to between 7:00 a.m. and 6:00 p.m. Monday through Friday. Work between the hours of 6:00 pm and 7:00 am and work on weekends and holidays requires prior written approval from the Building Official. If weekends and holiday work is approved construction and grading activities on the site shall be limited to between 8:00 a.m. to 6:00 p.m. on Saturdays, and between 10:00 a.m. and 6:00 p.m. on Sundays and State and Federal holidays.

Fire District General Comments

28. In accordance with the standard mitigation measures and conditions of approval set forth by the City of American Canyon, the developer shall pay the Fire Impact Fees (see current Standard Fees and Charges adopted by resolution), prior to the issuance of any building permits.

29. New buildings and additions to existing buildings shall conform to requirements set forth in the currently adopted editions of the California Building Code, California Fire Code, City of American Canyon standards and Nationally Recognized Standards.

30. There shall be no deferred submittals for fire protection equipment and related utilities. Fire protection plans shall not be attached to or bound with the building plan submittal package. This includes but is not limited to Automatic Fire Sprinkler, Fire Alarm, Fixed Fire Protection and Civil plans.

31. All Fire related underground piping and fire appurtenances shall be shown on the Civil plan submittal. In addition to the Civil plan submittal, at least (1) plan set under separate cover shall be submitted to American Canyon Building Division for routing to the American Canyon Fire Protection District detailing all underground piping and related fire appurtenances including but not limited to underground piping, underground sweep detail, underground trench details showing depth of burial, type of backfill, manufacturer's specifications of piping, valves joints, fittings and calculated size and locations of thrust blocks, hydrants locations (designate public or private), gate shut-off valves, PIV's, FDC's, fire pumps, fire pump and/or riser rooms.

32. Underground utility contractor, architect and fire sprinkler contractor shall coordinate the location of risers and control valves prior to the issuance of a building permit.

33. Fire Department plan review shall be based on the information submitted at the time of permit application. Any changes to the approved/permitted scope of work including additions, alterations, demolition, repair or a change in occupancy/use may impact the project requirements, including but not limited to the installation of additional fire protection systems or components.

34. An approved water supply capable of supplying the required fire flow for fire protection systems shall be provided to all premises upon which facilities or buildings are hereby constructed or moved into or within the City. Required fire flow and hydrant distribution shall be in accordance with Appendix B and C of the California Fire Code. Applicant shall demonstrate on plan submittal; square footage of each building on plan and provide the required fire flow information. Applicant shall demonstrate that the number and spacing of onsite fire hydrants meets with the requirements of the California Fire Code. See sample below regarding fire flow and hydrant detail information needed.

BUILDING FIRE FLOW REQUIREMENTS – CFC TABLES B105.2 & B105.1(2)

INFORMATION BELOW IS A SAMPLE AND FOR REFERENCE ONLY

Table B105.1(2) – Building size = 129, 600 square feet

Construction type = Type IIA
FF = 5,250 gpm at 20 psi
Duration = 4 hours

Table B105.2 – Fire sprinkler allowance = - 50%
5,250 – 2,625 = 2,625 gpm
FF = 2,625 gpm @ 20 psi
Duration = 2 hours

Table CC105.1 – Approximate number of hydrants = 3
Average spacing = 400 feet + 25% allowable increase = 500
Maximum distance from street or frontage = 225 feet = 50% allowable increase = 337.5

35. Fire Protection systems shall be installed in accordance with provisions set forth in the California Fire Code as amended by the City of American Canyon and the applicable National Fire Protection Association Standard.

36. The fire protection equipment shall be located within an interior room having an approved exterior access door or in an exterior enclosure attached to the building, specifically, for the purpose of housing such equipment.

37. Fire Apparatus Access Roads shall be designed in accordance with provisions set forth in the California Fire Code Chapter 5 and Appendix D as amended by the City of American Canyon and the applicable Public Works Standard.

38. Fire apparatus access roads shall have an unobstructed minimum width of 20 feet (curb to curb) and a minimum unobstructed vertical clearance of 13’ 6”. They shall have an all-weather paved surface capable of supporting a GVW of 75,000 pounds.

39. Access roads shall be completed with all-weather surfaces prior to the stockpiling of combustible materials or beginning combustible construction. Fire apparatus access shall be provided to within 150 feet of the most remote portions of all building from an approved exterior route. If this cannot be achieved fire apparatus turn arounds will be needed.

40. Fire apparatus access roads shall not be obstructed in any manner, including the parking of vehicles. Vertical traffic calming in the form of speed pumps, humps or dips are prohibited along fire access roads without prior approval of the fire Code Official. The minimum width and clearances established in Section 503.2.1 shall be maintained at all times.

41. When required by the Fire Chief, fire apparatus access roads shall be designated as Fire Lanes and appropriate signs and/or markings installed in accordance with the California Vehicle Code and approved City standards.

42. Where applicable improvement plan submittals for permit shall include locations of fire lane red curbing and fire lane signage. Please refer to and include City Public Works Standard FP-2A & 2B with plan submittals for permitting.

43. The City of American Canyon requires that a fire hydrant be in service within 250 feet of the furthest point of construction prior to the stockpiling of combustible materials for the beginning of construction.

44. Fire Department Connections (FDC) shall be located not more than 100 ft. from the nearest fire hydrant.

Public Works General Conditions of Approval

45. The Applicant shall be responsible for all City plan check and inspection costs. The Applicant shall establish a Developer Deposit Account with the City upon the initiation of plan check services. The amount of the initial deposit shall be determined by the City Engineer. Additional funds may be required based upon actual costs.

46. All improvements shall be designed in accordance with the American Canyon Municipal Code (ACMC), City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

47. All existing overhead utilities, both on-site and along project frontages, and new utilities to serve the project, shall be placed underground. Exceptions may be allowed for surface mounted transformers, pedestal mounted terminal boxes and meter cabinets.

48. Unless otherwise explicitly permitted, all existing wells, septic tanks and/or underground fuel storage tanks shall be abandoned under permit and inspection of Napa County Department of Environmental Services or other designated agency. If there are none, the project engineer shall provide a letter describing the scope of the search done to make this determination.

49. A detailed Soils Investigation/Geotechnical Report shall be prepared and submitted for review. The report shall address, at a minimum, potential for liquefaction, R-values, expansive soils and seismic risk. The improvement plans shall incorporate all design and construction criteria recommended in the Geotechnical Report.

50. A drainage report prepared by a California Registered Civil Engineer shall be submitted for review with the initial submittal of the Improvement Plans. The report shall include detailed hydrologic and hydraulic calculations to support the design and sizing of all public and private drainage facilities including storm drains and detention facilities. The report shall address existing downstream storm drain facilities and hydraulic conditions which may impact the design of proposed facilities and improvements.

51. A final detailed post-construction Stormwater Control Plan (SWCP) that identifies and sizes all permanent post-construction stormwater treatment BMPs shall be prepared and submitted for review and approval. The SWCP shall be prepared in accordance with the latest edition of the *Bay Area Stormwater Management Agencies Association (BASMAA) Post-Construction Manual* and the requirements of the State Water Resources Control Board Phase II Municipal Separate Storm Water System (MS4) General Permit (Order 2013-0001 DWQ). It is the City's discretion whether to accept alternative treatment facilities other than bioretention.

52. A Post Construction Stormwater Operations and Maintenance Plan that includes a plan sheet showing all storm drain and water quality infrastructure that is to be maintained, along with detailed instructions and schedules for the ongoing maintenance and operation of all post-construction stormwater BMPs shall be submitted for review and approval by the City Engineer. Once approved,

the property owner(s) shall enter into an agreement with the City that provides the terms, conditions, and security associated with the ongoing requirements of the post-construction Stormwater Best Management Practices.

53. The Applicant shall secure all necessary rights-of-way and public and private easements for both onsite and offsite improvements. The Applicant shall prepare all necessary legal descriptions and deeds.

54. To the extent any offsite public improvements require the acquisition of property not currently owned by the Applicant or the City, the Applicant shall first make a good-faith effort to acquire the necessary property rights, however if the Applicant makes such an effort and is unable to acquire such rights, then the Applicant may request the City acquire the necessary property rights through the exercise of eminent domain provided that the Applicant enters first into an agreement with the City to pay for all costs incurred by the City to acquire such rights and if the City does not acquire the rights necessary to allow the offsite public improvements to be completed by the Applicant within statutory timeline provided by law, then the Applicant shall be relieved of the obligation to construct those off-site improvements only to the extent they require property not currently owned by the Applicant or the City. The Applicant shall make a good-faith effort to identify and acquire the necessary property rights at the earliest opportunity.

55. The Applicant shall submit site Improvement Plans, prepared by a registered Civil Engineer, for review and approval of the City's Public Works Department. **Please be aware that this is separate submittal from the building permit application.** The final plan set shall include all civil, landscape and joint trench drawings under a single cover sheet. No final grading or other construction shall be performed until the Improvement Plans have been approved. The Applicant shall not begin clearing, grubbing, or rough grading at the site prior to approval of the Improvement Plans, unless explicitly approved by the City of American Canyon through the standard grading and utilities only permit process. An Encroachment Permit is required for any work within City right of way. Encroachment Permits will not be issued prior to the approval of the Improvement Plans.

56. All public water service laterals or services (domestic, recycled and fire water) shall include approved backflow prevention devices.

57. Cathodic protection shall be provided for all water valves, fittings, hydrants, meters, backflow devices, ductile iron pipe, and other metal appurtenances, regardless of the findings of any soils corrosivity analysis.

58. All sanitary sewer manholes shall be epoxy coated on the inside or installed with an exterior seal to limit infiltration.

59. The Applicant shall keep adjoining public and private streets free and clean of project dirt, mud, materials, and debris during the construction period in accordance with an approved SWPPP and Erosion and Sediment Control Plan using appropriate BMPs and as is found necessary by the City Engineer.

60. If any hazardous material is encountered during the construction of this project, all work shall be immediately stopped and the Fire Department, Napa County Department of Environmental Services

or other designated agency, and the City Inspector shall be notified immediately. Work shall not proceed until clearance has been issued by all of these agencies.

61. Prior to final preparation of the subgrade and placement of base materials, all underground utilities shall be installed and service connections stubbed out behind the sidewalk. Public utilities, Cable TV, sanitary sewers, and water lines shall be installed in a manner that will not disturb the street pavement, curb, gutter and sidewalk, when future service connections or extensions are made.

62. Where soil or geologic conditions encountered in grading operations are different from that anticipated in the soil and/or geologic investigation report, or where such conditions warrant changes to the recommendations contained in the original soil investigation, a revised soil or geologic report shall be submitted for approval by the City Engineer. Additionally, if field conditions warrant installation of any subdrains, the location, size and construction details must be provided to the City for review and approval prior to construction.

63. All new fire hydrants shall be covered with burlap sacks until the hydrants have been tested and found to be in conformance with City flow requirements. No storage of combustible materials or construction of building shall be permitted until all hydrants meet City flow requirements.

64. Prior to placing the final lift of asphalt, all public storm drains and sanitary sewer lines shall be video inspected at the Applicant's expense. All video media (CD, DVD, or portable hard drive) shall be submitted to the City. If any inadequacies are found, they shall be repaired prior to the placement of the final lift of asphalt.

65. All streets, curbs, gutters, sidewalks or other public facilities damaged in the course of construction associated with this Project shall be the responsibility of the Applicant and shall be repaired to the satisfaction of the City at the Applicant's expense.

66. After all of the new underground utilities within existing public streets have been installed, the entire affected areas shall be milled and repaved to present a neat finished pavement area. Multiple trench patches are not acceptable.

67. All construction stormwater pollution prevention best management practices (BMP's) shall be installed as the first order of work and in accordance with the *State Water Resources Control Board's General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ, as amended)*, the Applicant's Storm Water Pollution Prevention Plan (SWPPP), and the City's Erosion and Sediment Control Plan in accordance with the City's MS4 Permit. All stormwater BMP's shall be maintained to the satisfaction of the Qualified SWPPP Developer (QSD), Qualified SWPPP Practitioner (QSP), and the City Engineer.

68. Construction activities associated with the grading/improvement plans shall be limited to between 7:00 a.m. and 6:00 p.m. Monday through Friday. Work on weekends and holidays require written approval from the Public Works Director. If weekends and holiday work is approved, construction and grading activities shall be limited to between 8:00 a.m. to 6:00 p.m. on Saturdays, and between 10:00 a.m. and 6 p.m. on Sundays and holidays.

69. With the exception of water used for loading and testing of potable water lines, all construction water used for the project shall be obtained from a source other than American Canyon potable water

sources. The Applicant shall provide verification that an outside source of construction water, e.g., recycled water, has been established and will be available for the duration of the project construction.

70. The development shall comply with the City's Zero Water Footprint policy.

71. All landscaping shall be designed to use recycled water for irrigation. Recycled water landscaping shall be designed to comply with California Code of Regulations Title 22 and shall include design details to prevent runoff of recycled water. The irrigation system shall include an ET/SMART controller.

Public Works Special Conditions of Approval

72. The Applicant shall submit Improvement Plans prepared by a registered Civil Engineer (Engineer of Record) in substantial conformance with the preliminary Sun Square civil plans titled prepared by Adobe Associates, Inc., dated February 10, 2023, except as modified by these conditions.

73. Elevations in the Improvement Plans shall be tied to the State of California NAD83 coordinate system.

74. The Applicant shall design and construct all of the **Public Improvements** generally shown on the Preliminary Plans and more specifically described below.
    a. Construct a 5-foot wide detached sidewalk with landscape strip across the entire Napa Junction Road frontage of the property.

75. The Applicant shall construct all of the on-site private drive aisles, parking spaces, walks, water, recycled water, sanitary sewer, storm drainage and stormwater quality and landscaping "**Private Improvements"** generally shown on the Preliminary Plans and more specifically described below. All private drive aisles, parking spaces, walks, water, sewer, storm drainage and stormwater quality improvements shall be designed in accordance with the City of American Canyon Engineering Standard Plans and Specifications for Public Improvements (City Standards), except as specifically noted otherwise in these conditions.

    a. Storm Drain Facilities:

    Construct private on-site drainage facilities, detention facilities, and other appurtenances to collect and convey all surface drainage to an approved private storm drain facility or outfall. Onsite drainage facilities shall provide for the positive drainage of all adjacent upstream or upgrade properties to prevent ponding. Existing run-on from adjacent properties shall not be obstructed and shall be conveyed onsite. Off-site peak storm water discharge shall not exceed 90% of the undeveloped peak flow from the 24-hour, 100-year event. The sizing of all storm drains and detention facilities shall be determined by the approved final drainage report.

    b. Stormwater Quality Facilities:

    Permanent on-site private post-construction stormwater treatment BMPs shall be designed and constructed in accordance with the approved final SWCP. Runoff from all roof drains shall be conveyed to the onsite stormwater treatment facilities.

    c. Recycled Water:

    All buildings shall be dual plumbed and utilize recycled water for non-potable uses. Provide separate recycled water services for buildings and landscape irrigation.

d. Locate any monument signs such that they do not create sight obstructions for vehicles exiting the site.

e. Trash enclosures shall be designed in accordance with the American Canyon Draft Trash Enclosure Standards. Trash enclosures shall also be coordinated with Recology.

f. All other unresolved Public Works comments during the Design Permit application review shall be addressed and incorporated in the Improvement Plans.

76. Another larger development is proposed north of the existing Napa Junction 3 development. This proposed larger development will be conditioned to upgrade the existing sewer system at Napa Junction Road and Highway 29 because of its impact to the existing sewer system. Sun Square sewer demand will be evaluated and if determined that it impacts the existing sewer system, Sun Square shall contribute for its fair-share cost based on its contribution to the sewer flow subject to approval of the City Engineer.

77. Prior to SUBMITTAL OF THE IMPROVEMENT PLANS, the Applicant shall:

a. Submit the City's "Improvement Plan Checklist".

b. Pay an initial cash deposit for City plan check services in amount to be determined by the City prior to the time of submittal. The Project engineer shall contact City staff to discuss submittal details to determine initial deposit amount.

c. Provide the following:
(1) Public Street Repair Plan
(2) Utility Plan and Joint Trench Plan
(3) Construction Storm Water Pollution Prevention Plan (SWPPP) and a City Erosion and Sediment Control Plan (ESCP)
(4) Drainage Report
(5) Post-Construction Stormwater Control Plan (SWCP)
(6) Geotechnical Report
(7) Construction Traffic Control Plan.
(8) Submit application for Water and Sewer Will Serve.

d. Pothole and physically determine (by way of a survey performed by the Engineer of record) the actual horizontal location and vertical depth of all existing underground utilities throughout the proposed area of work and provide the design of all new utility installations required to serve the project including a schedule for implementation of such work as to prevent disrupting of utility service to adjacent properties.

78. Prior to APPROVAL OF THE IMPROVEMENT PLANS, the Applicant shall:

a. Provide written acknowledgment by the Geotechnical Engineer of Record that the Plans incorporate all design and construction criteria specified in the Geotechnical Report.

b. Complete and submit the City’s Erosion and Sediment Control Plan (ESCP) Template. Applicant may refer to a SWPPP, as appropriate, by referencing page number within the SWPPP that addresses the requirements of the ESCP.

c. Submit a copy of the Notice of Intent and WDID# for coverage under the State Water Resources Control Board' General Construction Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Order 2009-0009-DWQ).

79. Prior to COMMENCEMENT OF CONSTRUCTION ACTIVITIES, the Applicant shall:

a. Pay off all current account balances with the City of American Canyon.

b. Pay an inspection fee in amount to be determined at the time of commencement for the City's inspection of the Public Improvements.

c. Conduct a pre-construction meeting with representatives of the City whereby the Applicant, the Legally Responsible Party (LRP), Qualified SWPPP Practitioner (QSP), Qualified SWPPP Developer (QSD), cultural representatives, and/or the Contractor provides the following:

(1) Six (6) full-size bond copies of the approved Improvement Plans for the City's use.
(2) One (1) job-site copy of the latest edition of the City Standards for the Contractor use.
(3) One (1) job-site copy of the SWPPP for use by the LRP, QSP, QSD, and Contractor.
(4) Electronic copies of Improvement Plans and SWPPP

80. Prior to APPROVAL OF A BUILDING PERMIT, the Applicant shall:

a. Pay all account balances and current City and American Canyon Fire District fees (Mitigation & Capacity) based on the rates in effect at the time of permit issuance. These fees include, but may not be limited to the following: Traffic Mitigation, General Plan Update, Civic Facilities, Fire District, Water Capacity, Zero Water Footprint Mitigation and Wastewater Capacity.

81. Prior to ACCEPTANCE OF IMPROVEMENTS, the Applicant shall:

a. Restore all adjacent off-site road surfaces to pre-project conditions.

b. Submit a certification by the Geotechnical Engineer of Record that all the work has been completed in substantial conformance with the recommendations in Soils Investigation/Geotechnical Report.

c. Provide a mylar and digital copy of the Improvement Plans that include all as-built or field changes, in digital AutoCAD (.dwg) and (.pdf) format (void of any AutoCAD block formats preventing full editing capabilities of the drawings), compatible with the City's current version, and tied to the NAD83 (California Zone 2, feet) coordinate system.

d. Provide a letter stating that all of the Developer’s Conditions of Approval have been met.

e. Provide a letter from the Civil Engineer of Record certifying that all the site improvements were constructed and inspected in substantial conformance with the approved plans and City Standards.

f. Enter into and record a post-construction Stormwater Operations and Maintenance Agreement with the City.

Mitigation Monitoring and Reporting Program

All applicable mitigations in the Mitigation Monitoring and Reporting Program for the Broadway District Specific Plan Project Environmental Impact Report (Resolution No. 2019-51, State Clearinghouse No. 2017042025) are incorporated as conditions of approval by reference as listed below.

Mitigation Measures

82. MM AIR-2: Prior to issuance of the first construction permit for projects that occur pursuant to the Specific Plan, the applicant shall submit construction plans to the City of American Canyon with the following notes on them. The dust abatement measures described in the notes shall be implemented during construction.
    a. During construction activities, the following air pollution control measures shall be implemented:
    b. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day, or more as needed.
    c. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
    d. 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.
    e. All vehicle speeds on unpaved roads and surfaces shall be limited to 15 miles per hour.
    f. All roadways, driveways, and sidewalks shall be paved as soon as possible.
    g. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
    h. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 2 minutes (beyond the 5-minute limit required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
    i. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
    j. A publicly visible sign shall be posted with a name and telephone number of the person to contact at the Lead Agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Bay Area Air Quality Management District (BAAQMD) phone number shall also be visible to ensure compliance with applicable regulations.

83. MM AIR-3: Prior to issuance of the first construction permit for development projects that occur pursuant to the Specific Plan, the applicant shall provide documentation to the City of American Canyon demonstrating that all off-road by diesel equipment proposed for use is powered with Tier 3 or cleaner engines.

84. MM AIR-4b: Prior to issuance of building permits for any potential source of toxic air contaminants that would be developed pursuant to the Specific Plan, the applicant shall complete either of the following two options:

a. Prepare and submit a toxic air contaminant risk screening assessment to the City of American Canyon that demonstrates the proposed development would not expose sensitive receptors to levels of risk that exceed the BAAQMD project level and cumulative risk threshold for toxic air contaminant impacts.
b. Prepare and submit a Health Risk Analysis to the City of American Canyon consistent with BAAQMD recommended methodology, which demonstrates the proposed development would not expose sensitive receptors to levels of risk that would exceed the BAAQMD project level and cumulative risk threshold for toxic air contaminant impacts. If mitigation is required to reduce a potentially significant risk to less than the cumulative risk threshold, that mitigation shall be clearly identified and the associated risk reduction quantified. The mitigation must be incorporated into the project and implemented.

85. MM CUL-1: If prehistoric or historic-period archaeological resources are encountered during ground disturbing activities associated with new development that occurs pursuant to the Specific Plan, all construction activities within 100 feet of the find shall halt and the City of American Canyon shall be notified. Prehistoric archaeological materials might include obsidian and chert flakedstone tools (e.g., projectile points, knives, scrapers) or toolmaking debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone, concrete, or adobe footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. A Secretary of the Interior-qualified archaeologist shall inspect the findings within 24 hours of discovery. If it is determined that the project could damage a historical resource or a unique archaeological resource (as defined pursuant to the CEQA Guidelines), mitigation shall be implemented in accordance with PRC Section 21083.2 and Section 15126.4 of the CEQA Guidelines, with a preference for preservation in place. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement. If avoidance is not feasible, a qualified archaeologist shall prepare and implement a detailed treatment plan in consultation with the City of American Canyon. Treatment of unique archaeological resources shall follow the applicable requirements of PRC Section 21083.2. Treatment for most resources would consist of (but would not be not limited to) sample excavation, artifact collection, site documentation, and historical research, with the aim to target the recovery of important scientific data contained in the portion(s) of the significant resource to be impacted by the Project. The treatment plan shall include provisions for analysis of data in a regional context, reporting of results within a timely manner, curation of artifacts and data at an approved facility, and dissemination of reports to local and state repositories, libraries, and interested professionals.

86. MM CUL-3: If potential fossils are discovered during project implementation, all earthwork or other types of ground disturbance within 100 feet of the find shall stop immediately until a qualified professional paleontologist can assess the nature and importance of the find. The paleontologist shall report his/her findings to the City of American Canyon. Based on the scientific value or uniqueness of the find, the paleontologist shall either record the find and recommend that the City of American Canyon allow work to continue, or recommend salvage and recovery of the fossil. The paleontologist shall, if required, propose modifications to the stop-work radius based on the nature of the find, site geology, and the activities occurring on the site. If treatment and salvage is required, recommendations will be consistent with Society of Vertebrate Paleontology guidelines and currently accepted scientific practice. If required, treatment for fossil remains shall include preparation and

recovery of fossil materials so that they can be housed in an appropriate museum or university collection, and, if required, shall also include preparation of a report for publication describing the finds.

87. MM CUL-4: In the event of discovery or recognition of any human remains during construction activities, such activities within 100 feet of the find shall cease until the Napa County Coroner has been contacted to determine that no investigation of the cause of death is required. The Native American Heritage Commission (NAHC) shall be contacted within 24 hours if it is determined that the remains are Native American. The NAHC will then identify the person or persons it believes to be the most likely descendant from the deceased Native American (PRC Section 5097.98), who in turn would make recommendations to the City of American Canyon for the appropriate means of treating the human remains and any associated funerary objects (CEQA Guidelines Section 15064.5(d)).

88. MM GEO-1b: Prior to issuance of building permits for development projects that occur pursuant to the Specific Plan, the City of American Canyon shall verify that the applicant has commissioned a design-level geotechnical report. The report shall be prepared by a licensed geologist or geotechnical engineer and determine whether the geologic conditions of the site in question are suitable for development. All recommendations for grading, soil engineering, and construction shall be incorporated into the project plans.

89. MM HYD-1a: Prior to issuance of grading permits for development projects that occur pursuant to the Specific Plan, the City of American Canyon shall verify that the applicant has prepared a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the requirements of the statewide Construction General Permit. The SWPPP shall be designed to address the following objectives:
    a. all pollutants and their sources, including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity are controlled;
    b. where not otherwise required to be under a Regional Water Quality Control Board permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;
    c. site best management practices (BMPs) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity; and
    d. stabilization BMPs are installed to reduce or eliminate pollutants after construction are completed. The SWPPP shall be prepared by a qualified SWPPP developer. The SWPPP shall include the minimum BMPs required for the identified Risk Level. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association Stormwater Best Management Handbook—Construction or the Caltrans Stormwater Quality Handbook Construction Site BMPs Manual.

90. MM HYD-1b: Prior to issuance of building permits for development projects that occur pursuant to the Specific Plan, the project applicant shall prepare a Stormwater Control Plan that includes post-construction stormwater controls in the site design to satisfy requirements of the Phase II Small MS4 Permit. This shall include a review of the final Stormwater Control Plan by the City of American Canyon to ensure that the required controls are in place.

    Provision E.12.h of the MS4 Permit requires that an operation and maintenance program be implemented for post-construction stormwater management features. Responsible parties and

funding for long-term maintenance of all BMPs must be specified. This plan shall specify a regular inspection schedule of stormwater treatment facilities in accordance with the requirements of the MS4 Permit. Reports documenting inspections and any remedial action conducted shall be submitted regularly to the City for review and approval.

PASSED, APPROVED and ADOPTED at a regularly scheduled meeting of the Planning Commission of the City of American Canyon held on the 27th day of April, 2023, by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

_____
Crystal Mallare, Chair

ATTEST:

_____
Nicolle Hall, Administrative Technician

APPROVED AS TO FORM:

_____
William D. Ross, City Attorney

EXHIBITS:
A. BDSP Program EIR Evaluation
B. Project Plans
C. Applicant confirmation of Conditions of Approval
D. Yocha Dehe Wintun Nation Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation

City of American Canyon
Community Development Department
4381 Broadway, Suite 201
American Canyon, CA 94503

Environmental Evaluation for SUBSEQUENT ACTIVITY UNDER A PROGRAM EIR (This is not an Initial Study)

SECTION I. Project Information

Project Title and File No:	Sun Square Mixed Use Design Permit (PL21-0020).
Program EIR Name:	Broadway District Specific Plan Program Environmental Impact Report.
EIR State Clearinghouse Number:	#2017042025
Project Location & APN(s):	Located at 425 Napa Junction Road; APN 059-020-003
Project Applicant:	Max Konan, 3423 Broadway St – Suite D1, American Canyon, CA 94503
General Plan Designation:	Community Commercial
Zoning:	Community Commercial
Description of Project:	20 apartment units and 7,800 SF of offices distributed on 4 mixed-use buildings
Surrounding Land Uses and Setting:	North: Canyon Ridge Apartments South: Walmart Supercenter East: Vacant lot in Community Commercial zone West: Walmart parking lot

Prepared by: **William He, Senior Planner** **Date:** **3/20/2023**
Name, Title

Approved by: **Brent Cooper, Community Dev. Director** **Date:** **4/17/2023**
Name, Title

SECTION II. Program EIR Checklist

In accordance with Section 15168c of the California Environmental Quality Act (CEQA) Guidelines, the following checklist ensures that all project-related impacts have been addressed in the Program EIR. Mitigation measures identified in the Program EIR are listed for each project-related impact.

Checklist Issues:	Project Related Impact (Bold and Underline)	Impact DOES NOT require mitigation through EIR analysis	Impact DOES require mitigation through EIR analysis**	Assigned Mitigation measures (Bold and Underline)
1. Aesthetics Would the project:				
a) Have a substantial adverse effect on a scenic vista?	Yes/**No**	X		
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	Yes/**No**	X		
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Yes/**No**	X		
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Yes/**No**	X		
2. Agricultural Resources In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	Yes/**No**	X		
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Yes/**No**	X		
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	Yes/**No**	X		
3. Air Quality *Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.* *Would the project:*				
a) Conflict with or obstruct implementation of the applicable air quality plan?	**Yes**/No		X	**AIR-2, AIR-3,** AIR-4a, **AIR-4b**

Checklist Issues:	Project Related Impact (Bold and Underline)	Impact DOES NOT require mitigation through EIR analysis	Impact DOES require mitigation through EIR analysis**	Assigned Mitigation measures (Bold and Underline)
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	**Yes**/No		X	**AIR-2**
c) 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 (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	**Yes**/No		X	**AIR-3**
d) Expose sensitive receptors to substantial pollutant concentrations?	**Yes**/No		X	AIR-4a, **AIR-4b**
e) Create objectionable odors affecting a substantial number of people?	Yes/**No**	X		
f) Generate direct and indirect GHG emissions?	Yes/**No**	X		
g) Conflict with any applicable plan, policy or regulation of an agency adopted to reduce the emissions of GHGs?	Yes/**No**	X		
4. Biological Resources *Would the project:*				
a) 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 or U.S. Fish and Wildlife Service?	Yes/**No**		X	BIO-1a, BIO-1b
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Yes/**No**		X	BIO-2
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	Yes/**No**		X	BIO-2
d) 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 wildlife nursery sites?	Yes/**No**	X		
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Yes/**No**	X		

Checklist Issues:	Project Related Impact (Bold and Underline)	Impact DOES NOT require mitigation through EIR analysis	Impact DOES require mitigation through EIR analysis**	Assigned Mitigation measures (Bold and Underline)
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	Yes/**No**	X		
5. Cultural Resources *Would the project:*				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	**Yes**/No		X	**CUL-1**
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	**Yes**/No		X	**CUL-1**
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	**Yes**/No		X	**CUL-3**
d) Disturb any human remains, including those interred outside of formal cemeteries?	**Yes**/No		X	**CUL-4**
e) Will subsurface construction activities damage or destroy previously undiscovered tribal cultural resources?	**Yes**/No		X	**CUL-1**
6. Geology and Soils *Would the project:*				
a) Expose people or structures to potential substantial adverse effects associated with seismic hazards.	**Yes**/No		X	GEO-1a, **GEO-1b**
b) Result in substantial soil erosion or the loss of topsoil?	**Yes**/No		X	**HYD-1A**
c) 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?	Yes/**No**	X		
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	**Yes**/No		X	**GEO-1b**
7. Hazards and Hazardous Materials *Would the project:*				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Yes/**No**	X		
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	Yes/**No**	X		
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Yes/**No**	X		

Checklist Issues:	Project Related Impact (Bold and Underline)	Impact DOES NOT require mitigation through EIR analysis	Impact DOES require mitigation through EIR analysis**	Assigned Mitigation measures (Bold and Underline)
d) Be located within one-quarter mile of a facility that might reasonably be anticipated to emit hazardous emissions or handle hazardous or acutely hazardous materials, substances or waste?	Yes/**No**	X		
e) Be located on a site of a current or former hazardous waste disposal site or solid waste disposal site unless wastes have been removed from the former disposal site; or 2) that could release a hazardous substance as identified by the State Department of Health Services in a current list adopted pursuant to Section 25356 for removal or remedial action pursuant to Chapter 6.8 of Division 20 of the Health and Safety Code?	Yes/**No**	X		
f) Be located on land that is, or can be made, sufficiently free of hazardous materials so as to be suitable for development and use as a school?	Yes/**No**	X		
g) 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, would the project result in a safety hazard for people residing or working in the project area?	Yes/**No**	X		
h) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	Yes/**No**	X		
i) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Yes/**No**	X		
j) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	Yes/**No**	X		
k) Be located within 1500 feet of: (i) an above-ground water or fuel storage tank, or (ii) an easement of an above ground or underground pipeline that can pose a safety hazard to the proposed school?	Yes/**No**	X		
8. Hydrology and Water Quality *Would the project:*				
a) Violate any water quality standards or waste discharge requirements?	**Yes**/No		X	**HYD-1a, HYD-1b**

Checklist Issues:	Project Related Impact (Bold and Underline)	Impact DOES NOT require mitigation through EIR analysis	Impact DOES require mitigation through EIR analysis**	Assigned Mitigation measures (Bold and Underline)
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted?	Yes/**No**	X		
c) Substantially alter the existing drainage pattern of area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	Yes/**No**	X		
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?	Yes/**No**	X		
e) 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?	Yes/**No**	X		
f) Otherwise substantially degrade water quality?	Yes/**No**	X		
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	Yes/**No**	X		
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	Yes/**No**	X		
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	Yes/**No**	X		
j) Inundation by seiche, tsunami, or mudflow?	Yes/**No**	X		
9. Land Use and Planning *Would the project:*				
a) Physically divide an established community?	Yes/**No**	X		
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	Yes/**No**	X		
c) Conflict with the Napa County Airport Land Use Compatibility Plan?	Yes/**No**	X		

Checklist Issues:	Project Related Impact (Bold and Underline)	Impact DOES NOT require mitigation through EIR analysis	Impact DOES require mitigation through EIR analysis**	Assigned Mitigation measures (Bold and Underline)
d) Conflict with any applicable habitat conservation plan or natural communities conservation plan?	Yes/**No**	X		
10. Mineral Resources *Would the project:*				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	Yes/**No**	X		
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	Yes/**No**	X		
11. Noise *Would the project result in:*				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Yes/**No**	X		
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Yes/**No**	X		
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Yes/**No**	X		
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Yes/**No**	X		
e) 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, would the project expose people residing or working in the project area to excessive noise levels?	Yes/**No**	X		
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	Yes/**No**	X		
12. Population and Housing *Would the project:*				
a) Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	Yes/**No**	X		
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Yes/**No**	X		
c) Displace substantial numbers of people necessitating the construction of replacement housing elsewhere?	Yes/**No**	X		

Checklist Issues:	Project Related Impact (Bold and Underline)	Impact DOES NOT require mitigation through EIR analysis	Impact DOES require mitigation through EIR analysis**	Assigned Mitigation measures (Bold and Underline)
13. 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:*				
a) Fire Protection?	Yes/**No**	X		
b) Police Protection?	Yes/**No**	X		
c) Schools?	Yes/**No**	X		
d) Parks?	Yes/**No**	X		
e) Other public facilities?	Yes/**No**	X		
14. Recreation				
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?	Yes/**No**	X		
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?	Yes/**No**	X		
15. Transportation/Traffic *Would the project:*				
a) Would the Project from an "Existing Plus Background Plus Proposed Specific Plan Traffic" perspective conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets ,highways and freeways, pedestrian and bicycle paths, and mass transit?	Yes/**No**	X		
b) Would the Project from a "Cumulative" Traffic perspective conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	Yes/**No**	X		
c) Conflict with applicable congestion management program?	Yes/**No**	X		

Checklist Issues:	Project Related Impact (Bold and Underline)	Impact DOES NOT require mitigation through EIR analysis	Impact DOES require mitigation through EIR analysis**	Assigned Mitigation measures (Bold and Underline)
d) Alter air traffic patterns?	Yes/**No**	X		
e) Create hazards associated with design features or incompatible uses, or result in inadequate emergency access?	Yes/**No**	X		
f) Conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	Yes/**No**	X		
16. Utilities and Service Systems *Would the project:*				
a) Require additional water supply entitlements?	Yes/**No**	X		
b) Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	Yes/**No**	X		
c) Create the need for new or expanded downstream storm drainage facilities?	Yes/**No**	X		
d) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Yes/**No**	X		
e) Result in the inefficient, wasteful or unnecessary consumption of energy?	Yes/**No**	X		

**The list of "Assigned Mitigation Measures" include *Project Design Features (PDF), Existing Plans, Programs, and Policies (PPP), and Mitigation Measures.* Similar to Mitigation Measures, PDFs and PPPs are project requirements that reduce potential significant impacts of the project

SECTION III. Applicability of CEQA Guidelines Sections 15162 and 15163

	YES	NO
1. Substantial changes are proposed in the project which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.		X
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 of a substantial increase in the severity of previously identified significant effects; or		X
3. New information of substantial importance to the project becomes available; and		
A. The information was not known and could not have been known with the exercise of reasonable diligence at the time of the previous EIR was certified as complete, shows any of the following:		X
(1) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;		X
(2) Significant effects previously examined will be substantially more severe than shown in the previous EIR;		X
(3) 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		X
(4) Mitigation measures or alternatives which are considerably 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.		X

SECTION IV. Findings

	YES	NO
1. The project has effects that were not examined in the EIR; therefore, an Initial Study needs to be prepared leading to either an EIR or a negative Declaration.		X
2. The agency finds that pursuant to Section 15162, no new effects will occur or no new mitigation measures will be required. The agency can approve the project as being within the scope of the project covered by the EIR, and no new environmental document is required.	X	

SUN SQUARE

Mixed-use, Residential Apartments/ Office/Developementally Disabled Training

425 NAPA JUNCTION ROAD. AMERICAN CANYON, CA

PROJECT DATA

CONTACT INFORMATION;
OWNER CONTACT;
MAX KONAN
3423 BROADWAY ST #01
AMERICAN CANYON, CA 94503
510-692-1804
max@joinabrightfuture.com

SITE DATA;

AP# 059-020-003
ADDRESS:
425 NAPA JUNCTION ROAD
AMERICAN CANYON ROAD

ACRES; 1

LAND USE ZONE; CC COMMUNITY COMMERCIAL
GENERAL PLAN: CC
F.A.R. ALLOWED FOR MIXED-USE: 1.5
HEIGHT LIMIT ALLOWED FOR MIXED-USE: 54 FEET

PROPOSED OFFICE AREA: 3696 SF
PROPOSED DEVELOPMENT DISABLE TRAINING AREA: 3696 SF
PROPOSED RESIDENTIAL UNITS; 20- 1 BEDROOM
BUILDING FOOTPRINT: 11,616 SF
LANDSCAPE AREA; 14,572 SF

BUILDING HEIGHT; 2 STORIES, 27 FEET

OCCUPANCY TYPE; B & R2

CONST. TYPE: V-A

PARKING

Project Data (all phases) 9/15/2022

Parking Provided

Space	type				Parking spaces
Uncovered	Compact				3
Uncovered	Standard				15
Covered	Standard				20
Handicap	Handicap				2
Total					40

F.A.R. Floor Area Ration		Area**	FAR
Lot Area		43560	
1st Floor	Residential	2464	0.06
1 st Floor	Common	1424	0.03
1 st Floor	Commercial	7400	0.17
2nd Floor	Residential	10392	0.24
2nd Floor	Common	452	0.01
Total Building Area		**22132**	**0.51**

**= exterior square feet

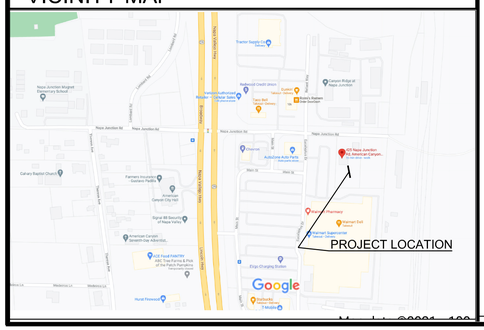
Project Data (phase 1)

Parking Provided

Space	type				Parking spaces
Uncovered	Standard				11
Handicap	Handicap				2
Total					13

TRASH ENCLOSURE

VICINITY MAP



FRONTAGE ALONG NAPA JUNCTION ROAD



FRONTAGE ALONG NAPA JUNCTION ROAD



LOOKING SOUTHEAST TOWARDS WALMART



LOOKING SOUTHWEST TOWARDS WALMART



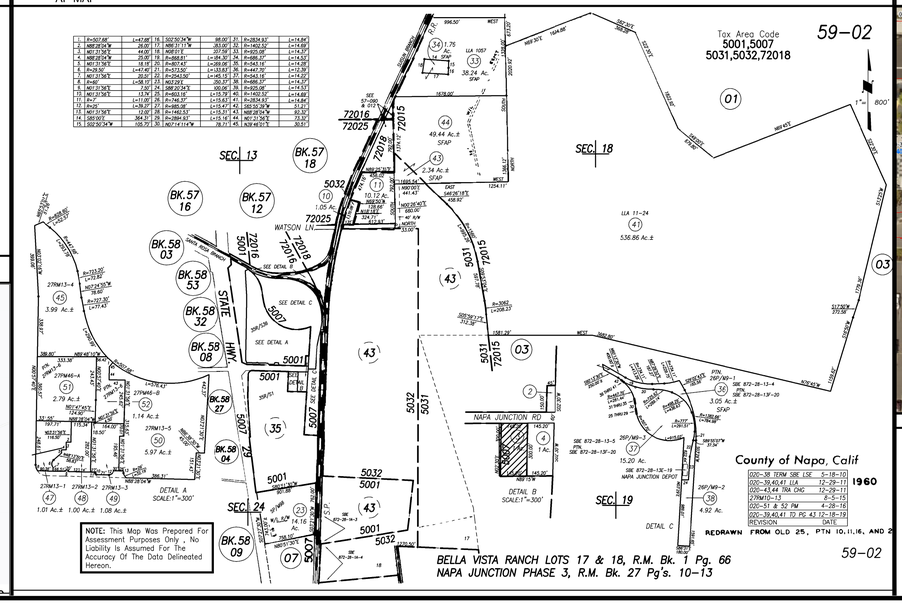
LOOKING NORTH ALONG EAST PROPERTY LINE



LOOKING NORTH ALONG WEST PROPERTY LINE



AP MAP



PROJECT DESCRIPTION

THIS IS A 25,237 SQUARE FOOT MIXED-USE PROJECT WITH 20 RESIDENTIAL APARTMENTS ABOVE THE OFFICE.
SOLAR COLLECTORS ARE ON THE ROOF FOR COMMON AREA ELECTRICAL NEEDS.
STORM WATERS DETENTION IS PROVIDED FOR ONSITE.

THE RESIDENTIAL APARTMENTS:
20-ONE BEDROOM UNITS DESIGNED FOR WORKING ACTIVE PROFESSIONALS WITH THE FOLLOWING AMENITIES:
- ROOFTOP GARDEN AREA WITH OUTDOOR KITCHEN AND BAR-B-QUE
- GYM & WORK OUT AREA
- LAUNDRY ON EACH FLOOR
- COMMON OFFICE AREA
- THE ENTRY IS SEPARATED FROM THE OFFICE USES.
- OBSERVATION DECK ABOVE THE APARTMENT ENTRY.
- 1.5 PARKING SPACES/ APARTMENT

THE OFFICES;

DRAWING INDEX

CS-1	Cover Sheet, General Notes
A-1	Site Plan
A-2	Floor Plans
A3	Exterior Elevations & Section
A4	Rendering
A5	Trash Enclosure Plan & Elevations
L1.1	Landscaping Planting Plan
L1.1	Landscaping Planting Plan
C1.0	Overall Civil Site Plan
C2.0	Grading Plan
C2.1	Grading Plan & Drainage Plan
C3.0	Utility Plan
C3.1	Utility Plan
C4.0	Section and Detail

Total					13

AERIAL VIEW



APPROVAL STAMPS

PLANNING SUBMITTAL

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REN. 4-30-23
STATE OF CALIFORNIA

DATE: 9/3/22

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COVER SHEET

CS-1

JOB NO.: ABF02

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1 SITE PLAN
Scale: 1" = 20'-0"

Project Data (all phases) 9/15/2022

Provided

Space	type				Parking spaces
Uncovered	Compact				1
Uncovered	Standard				35
Covered	Standard				2
Handicap	Handicap				2
Total					40

F.A.R. Floor Area Ration		Area**	FAR
Lot Area		43560	
1st Floor	Residential	2464	0.06
1 st Floor	Common	1424	0.03
1 st Floor	Commercial	7392	0.17
2nd Floor	Residential	10392	0.24
2nd Floor	Common	452	0.01
Total Building Area		**22124**	**0.51**

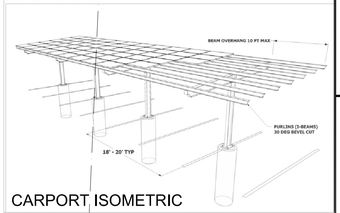
**= exterior square feet

Project Data (phase 1)

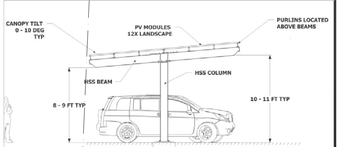
Provided

Space	type				Parking spaces
Uncovered	Standard				11
Handicap	Handicap				2
Total					13


BIKE RACK



CARPORT ISOMETRIC



CARPORT ELEVATION


COVERED PARKING STRUCTURE W/ SOLAR

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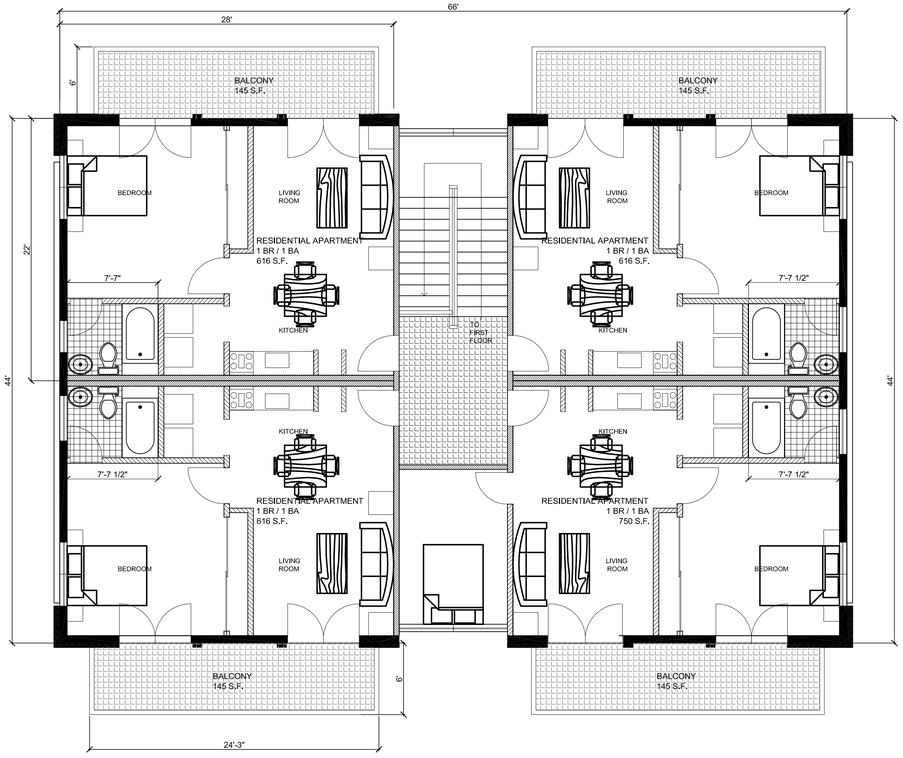
SITE PLAN

A-1

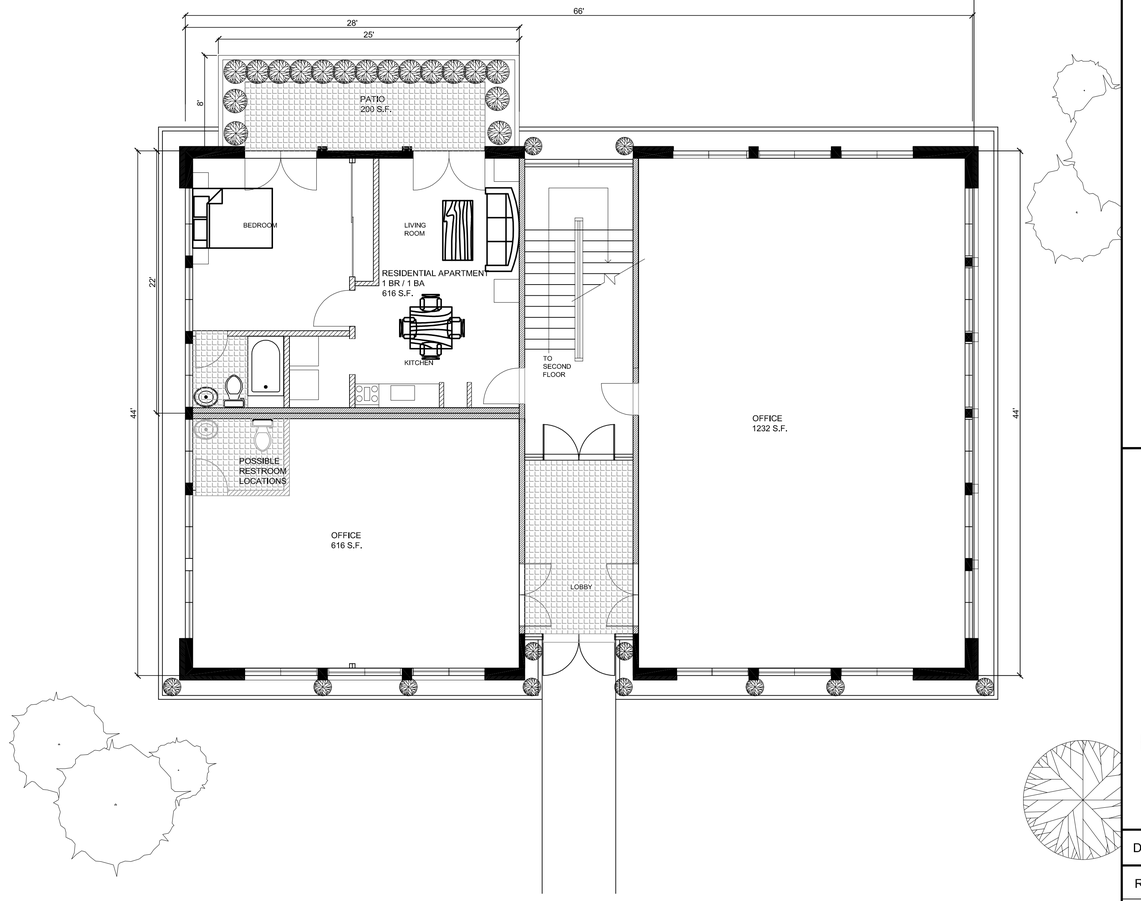
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2 **2ND FLOOR PLAN**
Scale: 3/16" = 1'-0"



1 **1ST FLOOR PLAN**
Scale: 3/16" = 1'-0"

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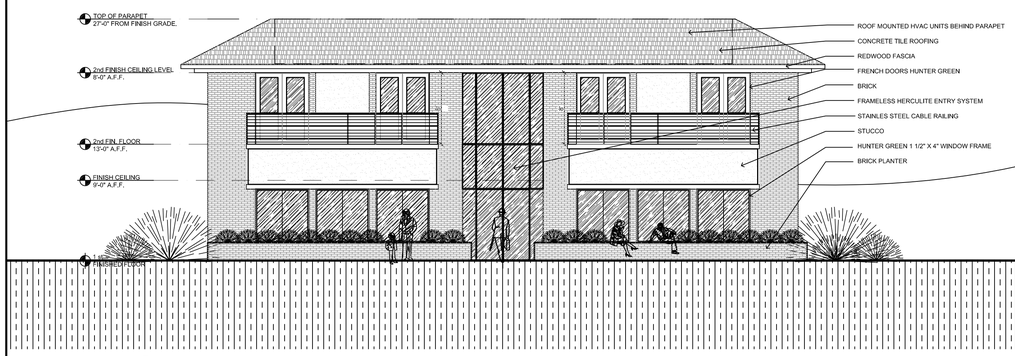
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FLOOR PLAN

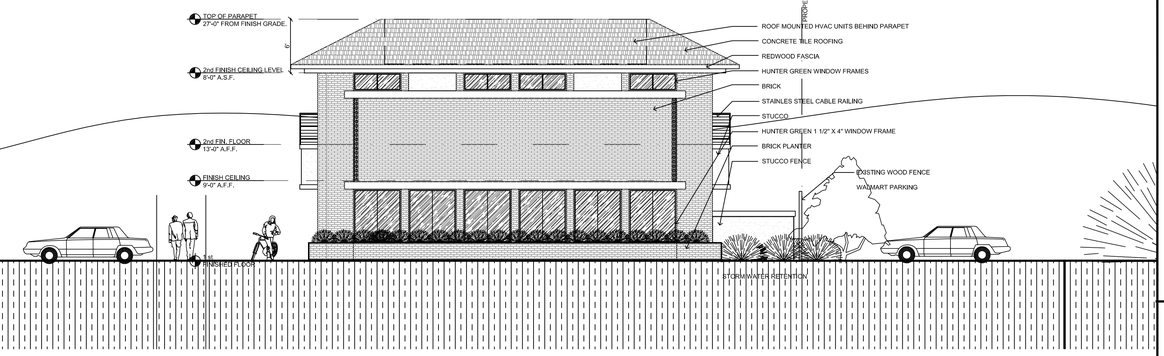
A-2

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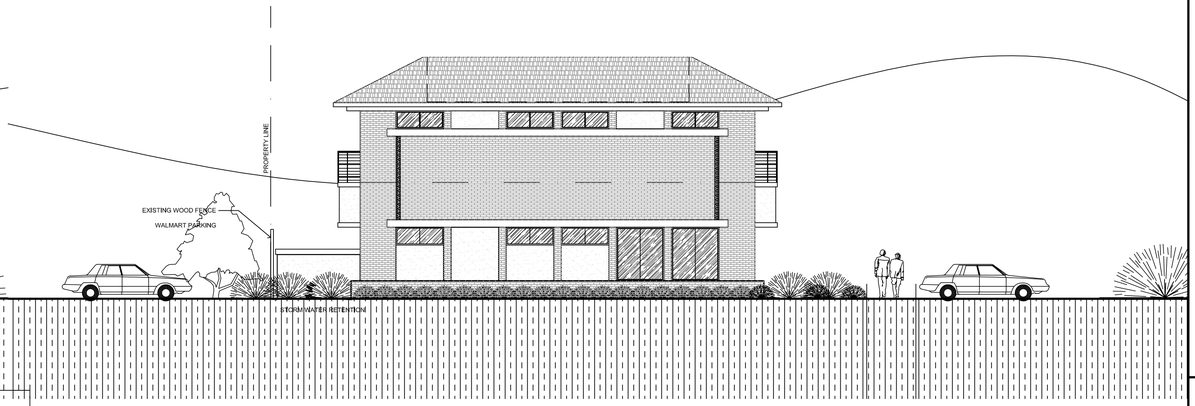
3 EAST ELEVATION
Scale: 1/8" = 1'-0"



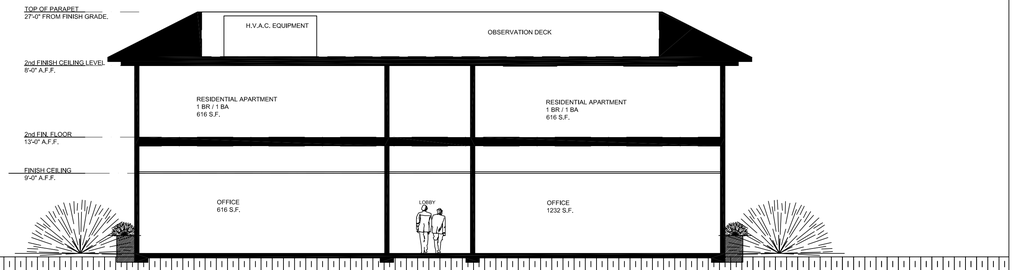
1 NORTH ELEVATION
Scale: 1/8" = 1'-0"



4 WEST ELEVATION
Scale: 1/8" = 1'-0"



2 SOUTH ELEVATION
Scale: 1/8" = 1'-0"



4 BUILDING SECTION
Scale: 1/8" = 1'-0"

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EXTERIOR ELEVATIONS SECTION

A-3.0

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425 Napa Junction Rd, American Canyon

John Howland Architect

Architecture
Interiors
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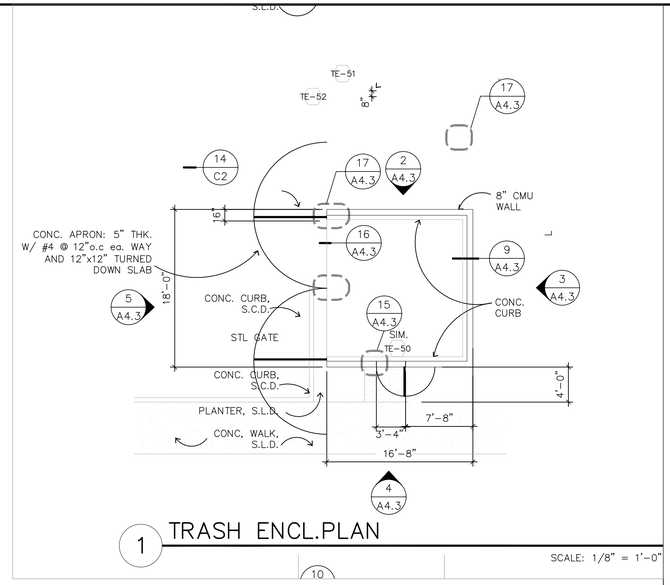


SUN SQUARE

425 Napa Junction Rd, American Canyon

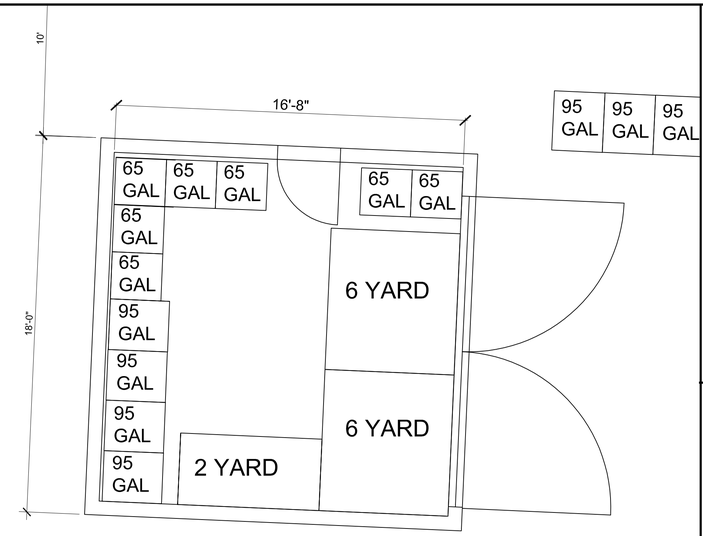
John Howland Architect

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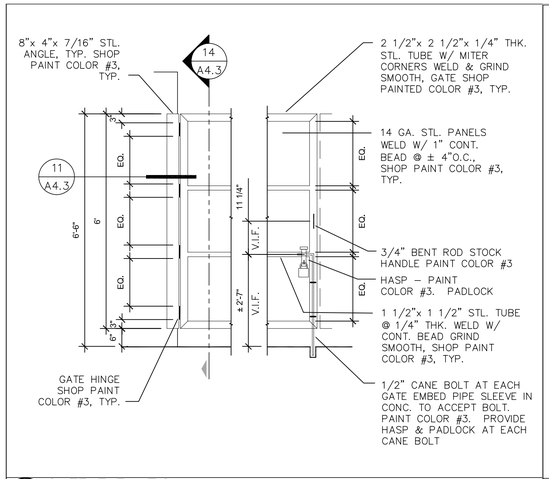
1 TRASH ENCL.PLAN

SCALE: 1/8" = 1'-0"



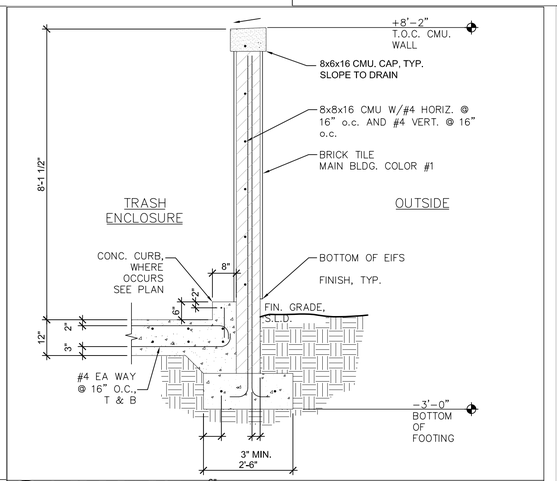
A LAYOUT PLAN

Scale: 1/2" = 1'-0"



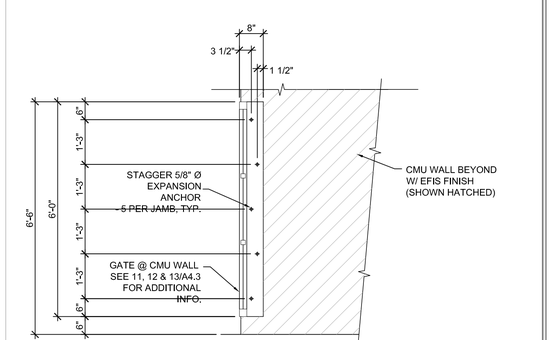
GATE ELEVATION

SCALE: 1/2" = 1'-0"



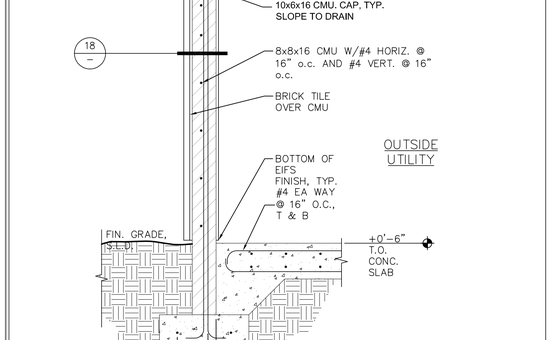
GATE ELEVATION

SCALE: 1/2" = 1'-0"



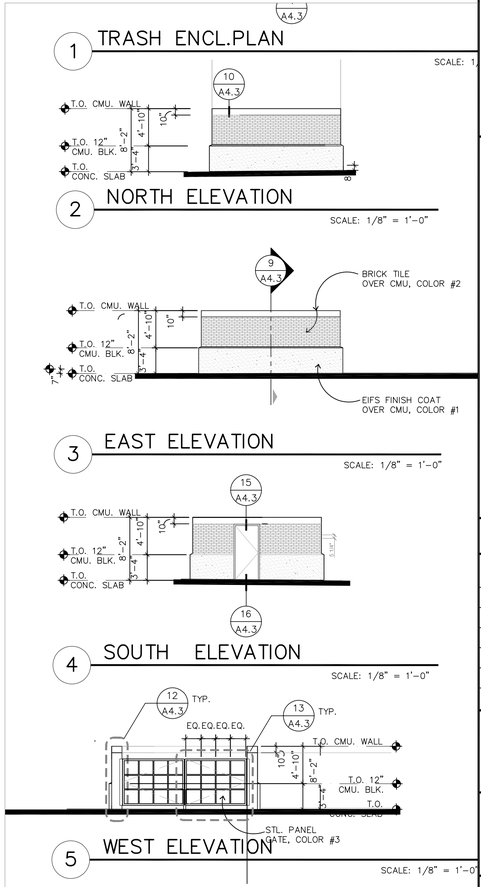
GATE ELEVATION

SCALE: 1/2" = 1'-0"



GATE ELEVATION

SCALE: 1/2" = 1'-0"



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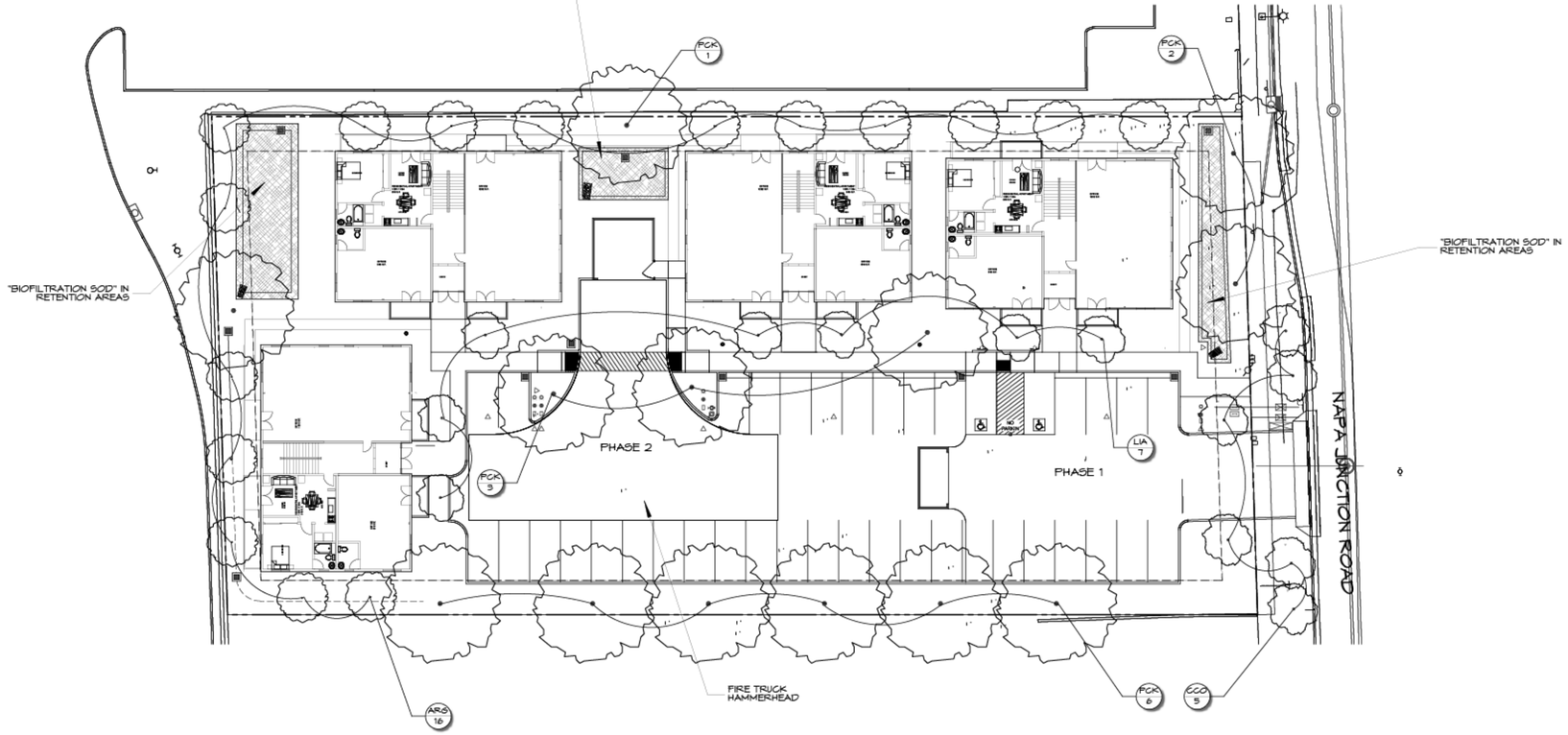
TRASH ENCLOSURE

A1.1

JOB NO.: ABF02

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U.S.A NOTE
IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO BE FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL EXERCISE EXTREME CARE, AND BE RESPONSIBLE FOR ANY DAMAGE IN EXCAVATING AND WORKING NEAR UTILITIES. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OTHER SUB-CONTRACTORS FOR THE LOCATION OF UTILITIES AND THE INSTALLATION OF PIPE SLEEVED THROUGH WALLS, UNDER ROADWAYS AND NEAR STRUCTURES. PRIOR TO CONSTRUCTION, CONTACT ALL APPLICABLE AGENCIES AND U.S.A. AT 1-800-642-2444 OR 1-800-227-2600 TO FIELD LOCATE ALL EXISTING UTILITIES.



PRELIMINARY TREE PLANTING PLAN
Scale: 1" = 20'-0"

THESE DRAWINGS COMPLY WITH THE CRITERIA OF THE ORDINANCE. ORDINANCE REQUIREMENTS HAVE BEEN APPLIED FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN AND THE LANDSCAPE DESIGN PLAN."

MAWA AND ETWU CALCULATIONS

1) Maximum Applie~

MAWA = (ETo) (0.62) [(0.55 X LA) + (0.45 X SLA)]

Where:
ETo = Annual Net Reference Evapotranspiration (Inches)
0.45 = ET Adjustment Factor (Commercial)
0.55 = ET Adjustment Factor (Residential)
LA = Landscaped Area (square feet)
0.62 = Conversion factor (to gallons per square foot)
SLA = Portion of the landscape area identified as Special Landscape Area (square feet)
0.45 = the additional ET adjustment factor for Special Landscape Area (1.0 - 0.55 = 0.45) (Commercial)
0.55 = the additional ET adjustment factor for Special Landscape Area (1.0 - 0.45 = 0.55) (Residential)

Commercial (C) or Residential (R) C

A) Net Evapotranspiration Calculation

Local Reference ETo 49.51

27.12"/yr (Annual Rainfall) X .25 - 6.78 (Effective Rainfall)

Net Evapotranspiration Calculation = Annual ETo - Effective Rainfall = 38.78

B) Adjusted Landscape Area Calculation

14,512 sf (Landscape Area) X 0.45 Adjustment Factor = 6,551.54 sf

0.00 sf (Special Landscape Area) X 0.55 Adjustment Factor = 0.00 sf

Sum of Adjusted Landscape Area = 6,551.54 sf

MAWAn 38.78 X .62 X 6,558 sf = 157,465 gal/yr

2) Estimated Total Water Use (ETWU)

A) Net Evapotranspiration Calculation = 38.78 sf

Net Evapotranspiration Calculation = Annual ETo - Effective Rainfall

B) Adjusted Landscape Area Calculation

0.00 sf Very Low Water Use X.01 = 0.00 sf

14,120 sf Low Water Use X .03 = 4,236.02 sf

452 sf Moderate Water Use X.06 = 271.54 sf

0.00 sf High Water Use X .8 = 0.00 sf

Sum of Adjusted Landscape Area = 4,507.41 sf

ETWU = 38.78 X .62 X 4,507 sf / 0.81 = 195,249 gal/yr

Irrigation Efficiency Factor
Square Footage of Landscape on Drip =
Square Footage of Landscape on Spray 0.00 sf
Total Square Footage of Landscape =
Adjusted Irrigation Efficiency Factor 0.81

DETAIL HYDROZONE TABLE

Name	Method	Water Use	Water Use Value	Hydrozone Area in SF	% of Landscape
Bioretention	Eco-Mat	Low	0.3	1,875.36 sf	12.9%
Shrub and Groundcover	Sub-Surface Dripline	Low	0.3	11,509.85 sf	79.0%
Trees	Root Watering System	Moderate	0.6	452.31 sf	3.1%
Trees	Root Watering System	Low	0.3	734.67 sf	5.0%
				14,512 sf	100%

SUMMARY HYDROZONE TABLE

PLANT TYPE	AR	% OF LANDSCAPE
Very Low	0.00	0%
Low	14,120.08	97%
Moderate	452.31	3%
High	0.00	0%
Total	14,572.39	100%


ACER RUBRUM 'ARMSTRONG GOLD'


CERCIS CANADENSIS VAR. TEXENSIS 'OKLAHOMA'


LAGERSTROMIA INDICA 'NATCHEZ'


PISTACIA CHINENSIS 'KEITH DAVEY'

PLANT LEGEND

SYMBOL	SIZE	BOTANICAL NAME	COMMON NAME	WATER USE PER WUCOLS IV	QUANTITY	COMMENTS
ARG	#24	Acer rubrum 'Armstrong Gold'	Armstrong Maple	.6	16	
CCO	#24	Cercis canadensis reniformis 'Oklahoma'	Oklahoma Redbud	.3	6	
LIA	#24	Lagerstroemia indica x fauei 'Arapaho'	Arapaho Crape Myrtle	.3	7	
PCK	#24	Pistacia chinensis 'Keith Davey'	Chinese pistache	.3	13	
Bioretention Areas						
	Sod	Biofiltration Sod	"Biofiltration Sod"	0.3	1875 sft	
Other						
		Mulch: Fir Bark 1-1/2" Minus	Medium Walk-On Bark			3" Depth, All Landscape Areas
See Detail		Linear Root Barrier	Root Solutions, or Equal			24" Depth, Continuous

THE PLANT PALETTE IS SUBJECT TO CHANGE BASED ON WATER CHEMISTRY AND HORTICULTURAL SUITABILITY OF THE CITY RECLAIMED WATER.

LANDSCAPE DESIGN INTENT

THE DESIGN INTENT OF THIS PROJECT IS TO PROVIDE AN ATTRACTIVE, DURABLE, LOW MAINTENANCE LANDSCAPE APPROPRIATE TO NAPA COUNTY.

PLANTING SHALL INCLUDE A MIXTURE OF HORTICULTURALLY APPROPRIATE SHRUB AND GROUNDCOVER PLANTINGS. SHRUBS AND GROUNDCOVER PLANTINGS SHALL CONSIST OF MEDIUM, LOW WATER USE PLANTS (AS DEFINED BY THE 2014 EDITION OF WUCOLS IV).

DECIDUOUS, FLOWERING ACCENT TREES ARE PROPOSED AT THE ENTRY TO THE PARKING LOT TO CREATE INTEREST AND CHARACTER. DECIDUOUS SHADE TREES WITH FLOWERING ACCENT TREES ARE PROPOSED FOR THE PARKING AREA. MEDIUM SIZE, COLUMNAR, DECIDUOUS TREES ARE PROPOSED ALONG THE NORTHERLY BOUNDARY FOR SCREENING. NO LAWN IS PLANNED FOR ANY PORTION OF THE LANDSCAPED AREAS. REQUIRED BIOSWALES WILL BE LANDSCAPED WITH A SOD PRODUCT DEVELOPED SPECIFICALLY FOR BIOFILTRATION.

IRRIGATION DESIGN INTENT

ALL LANDSCAPE AREAS SHALL BE IRRIGATED BY AN AUTOMATIC IRRIGATION SYSTEM WITH WEATHER SENSOR OVERRIDE. SENSOR SHALL BE CAPABLE OF CALCULATING EVAPOTRANSPIRATION AND SHALL ADJUST FOR LOCAL WEATHER. THE ENTIRE IRRIGATION SYSTEM SHALL BE ON AN AUTOMATICALLY CONTROLLED SYSTEM WITH SEPARATE PROGRAMS CAPABLE OF IRRIGATING EACH HYDROZONE INDEPENDENTLY.

THE PROPOSED TREES SHALL BE IRRIGATED VIA SEPARATE, DEDICATED BUBBLER CIRCUIT. ALL OTHER LANDSCAPE AREAS SHALL BE IRRIGATED VIA AN IN-LINE DRIP EMITTER IRRIGATION SYSTEM. THE INTENT OF THE LANDSCAPE AND WATER DELIVERY SYSTEMS IS TO MEET ALL ASPECTS OF THE CITY OF AMERICAN CANYON WATER EFFICIENCY LANDSCAPE ORDINANCE (WELO).

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REGISTERED LANDSCAPE ARCHITECT
DONALD G. MACNAIR
NO. 2800
EXP. 8/31/23
STATE OF CALIFORNIA

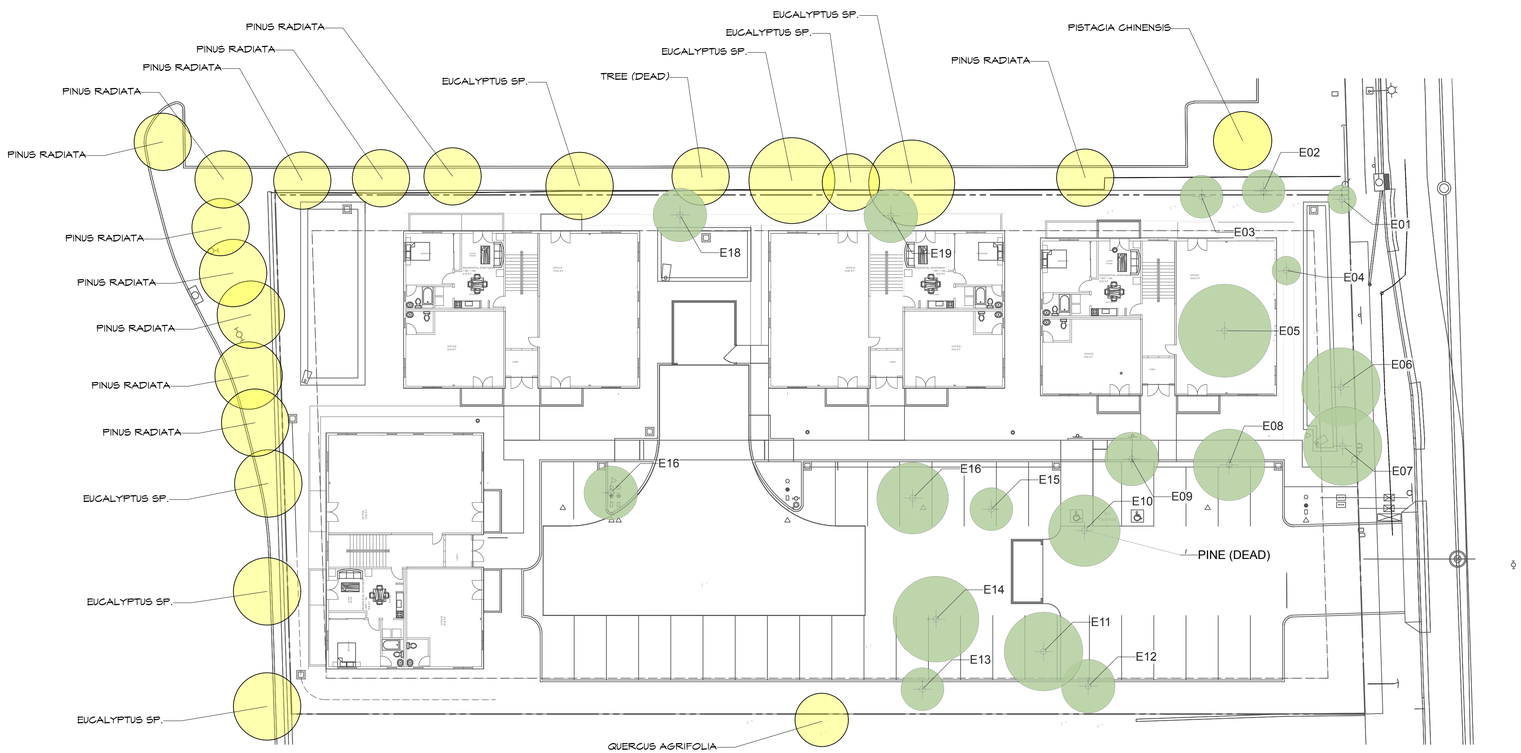
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TEL (707) 833-2285
RLA #2800
don@macnairlandscape.com

PRELIMINARY TREE PLANTING PLAN

SUN SQUARE
421 & 425 NAPA JUNCTION ROAD
AMERICAN CANYON, CA
APN #059-020-003

DATE: 1/21/23
MLA JOB #: 2020-28
SCALE: 1" = 20'
DRAWN: DM

L1.1
SHEET L1.1 OF 5



TREE REMOVAL PLAN

Scale: 1" = 20'-0"

GREEN SYMBOLS REPRESENT EXISTING TREES TO BE REMOVED DUE TO CONSTRUCTION IMPACT.

YELLOW SYMBOLS REPRESENT EXISTING OFF-SITE TREES ADJACENT TO THE PROPERTY LINE. LOCATION SHOWN IS APPROXIMATE.

EXISTING TREES

ID	Botanical Name	Common Name	Average Spread	DBH	Action
E01	Washintonia robusta	Mexican Fan Palm	8	1'4"	Remove - Construction Impact
E02	Juniperus sp.	Juniper	12	1'6"	Remove - Construction Impact
E03	Juniperus sp.	Juniper	12	8"	Remove - Construction Impact
E04	Washintonia robusta	Mexican Fan Palm	8	8"	Remove - Construction Impact
E05	Cedrus deodara	Deodar Cedar	26	2'0"	Remove - Construction Impact
E06	Juniperus sp.	Juniper	22	1'6"	Remove - Construction Impact
E07	Juniperus sp.	Juniper	22	1'10"	Remove - Construction Impact
E08	Quercus agrifolia	Coast Live Oak	20	1'0"	Remove - Construction Impact
E09	Ligustrum lucidum	Glossy Privet	15	8"	Remove - Construction Impact
E10	Pinus radiata	Monterey Pine	20	2'0"	Remove - Dead
E11	Juniperus sp.	Juniper	22	1'0"	Remove - Construction Impact
E12	Pinus radiata	Monterey Pine	15	1'0"	Remove - Construction Impact
E13	Quercus agrifolia	Coast Live Oak	12	6"	Remove - Construction Impact
E14	Quercus agrifolia	Coast Live Oak	24	10"	Remove - Construction Impact
E15	Quercus agrifolia	Coast Live Oak	12	6"	Remove - Construction Impact
E16	Sequoia sempervirens	Coast Redwood	20	1'8"	Remove - Construction Impact
E16	Quercus agrifolia	Coast Live Oak	15	1'4"	Remove - Construction Impact
E18	Ligustrum lucidum	Glossy Privet	15	1'0"	Remove - Construction Impact
E19	Ligustrum lucidum	Glossy Privet	15	1'0"	Remove - Construction Impact

TREE REMOVAL JUSTIFICATION

19 EXISTING TREES ARE PROPOSED TO BE REMOVED DUE TO CONSTRUCTION AND GRADING IMPACTS. THE MAJORITY OF THE TREES TO BE REMOVED ARE NOT CONSIDERED DESIRABLE DUE TO HEALTH AND SPECIES. THE REMAINING TREES ARE NOT CONSIDERED VIABLE FOR TRANSPLANTING DUE TO LOW SURVIVABILITY RATE AND VERY HIGH MAINTENANCE REQUIREMENTS. 42 NEW TREES ARE PROPOSED.

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TREE REMOVAL

SUN SQUARE

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APN #059-020-003

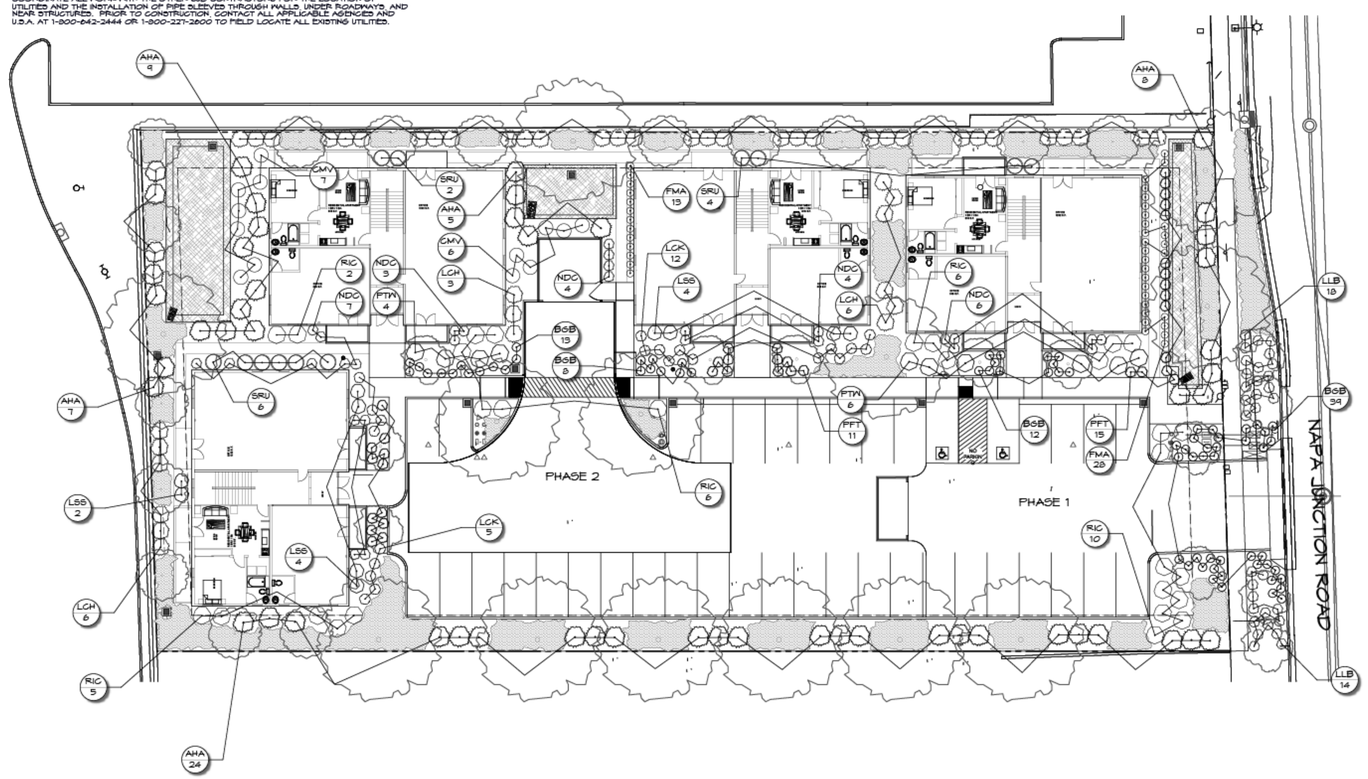
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SCALE: 1" = 20'
DRAWN: DM

L1.2

SHEET L1.2 OF 5

U.S.A NOTE
IT IS THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO BE FAMILIAR WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, STRUCTURES, AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL EXERCISE EXTREME CARE, AND BE RESPONSIBLE FOR ANY DAMAGE IN EXCAVATING AND WORKING NEAR UTILITIES. THE LANDSCAPE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OTHER SUB-CONTRACTORS FOR THE LOCATION OF UTILITIES AND THE INSTALLATION OF PIPE SLEEVED THROUGH WALLS, UNDER ROADWAYS, AND NEAR STRUCTURES. PRIOR TO CONSTRUCTION, CONTACT ALL APPLICABLE AGENCIES AND U.S.A. AT 1-800-642-2444 OR 1-800-227-2600 TO FIELD LOCATE ALL EXISTING UTILITIES.

THESE DRAWINGS COMPLY WITH THE CRITERIA OF THE ORDINANCE. ORDINANCE REQUIREMENTS HAVE BEEN APPLIED FOR THE EFFICIENT USE OF WATER IN THE IRRIGATION DESIGN PLAN AND THE LANDSCAPE DESIGN PLAN.

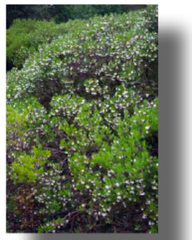


SHRUB AND GROUNDCOVER LEGEND

SYMBOL	SIZE	BOTANICAL NAME	COMMON NAME	WATER USE PER WUCOLS IV	QUANTITY	COMMENTS
Shrubs						
AHA	#5	Arctostaphylos densiflora 'Harmony'	Harmony Manzanita	.3	58	
CMV	#5	Ceanothus maritimus 'Valley Violet'	Valley Violet Ceanothus	.3	19	
LSS	#5	Ligustrum sinense 'Sunshine'	Sunshine Chinese Privet	.3	10	
LGK	#5	Loropetalum chinense 'Kurenai'	Jazz Hands® Dwarf Pink Chinese Fringe-flower	.3	21	
LGH	#5	Loropetalum chinense 'Razzleberri'	Razzleberri Fringe Flower	.3	47	
NDC	#5	Nandina domestica 'Compacta'	Dwarf Heavenly Bamboo	.3	28	
RIC	#5	Rhaphiolepis indica 'Clara'	Clara Indian Hawthorn	.3	29	
SRU	#5	Sarcococca ruscifolia	Fragrant Sweet Box	.3	12	
Groundcover						
	#1	Cotoneaster dammeri 'Coral Beauty'	Coral Beauty Cotoneaster	0.3	93	6' OC, Triangular Spacing
Ornamental Grass						
BSB	#1	Bouteloua gracilis 'Blonde Ambition'	Blonde Ambition Ornamental Grass	.3	19	
FMA	#1	Festuca mairei	Atlas Fescue	.3	41	
LLB	#1	Lomandra longifolia 'Breeze'	Breeze™ Dwarf Mat Rush	.3	52	
PFT	#1	Pennisetum 'Fairy Tails'	Fairy Tails Fountain Grass	.3	38	
Other						
		Mulch: Fir Bark 1-1/2" Minus	Medium Walk-On Bark			3" Depth, All Landscape Areas
See Detail		Linear Root Barrier	Root Solutions, or Equal			24" Depth, Continuous

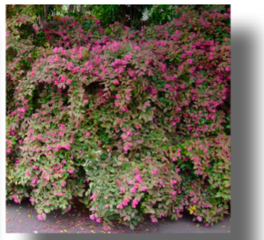
THE PLANT PALETTE IS SUBJECT TO CHANGE BASED ON WATER CHEMISTRY AND HORTICULTURAL SUITABILITY OF THE CITY RECLAIMED WATER.

PLANTING PLAN - SHRUB AND GROUNDCOVER
Scale: 1" = 20'-0"

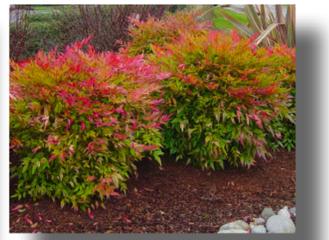

ARCTOSTAPHYLOS DENSIFLORA 'HARMONY'


CEANOTHUS MARITIMUS 'VALLEY VIOLET'


LIGUSTRUM SINENSE 'SUNSHINE'


LOROPETALUM CHINENSE 'RAZZLEBERRI'


LOROPETALUM CHINENSE 'KURENAI'


NANDINA DOMESTICA


RHAPIOLEPIS INDICA 'CLARA'

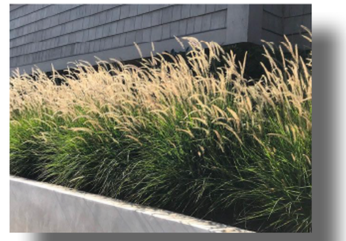

SARCOCOCCA HOOKERIANA VAR. HUMILIS 'FRAGRANT VALLEY'


COTONEASTER DAMMERI 'CORAL BEAUTY'


BOUTELOUA GRACILIS 'BLONDE AMBITION'


FESTUCA MAIREI


LOMANDRA LONGIFOLIA 'BREEZE'


PENNISETUM 'FAIRY TAILS'

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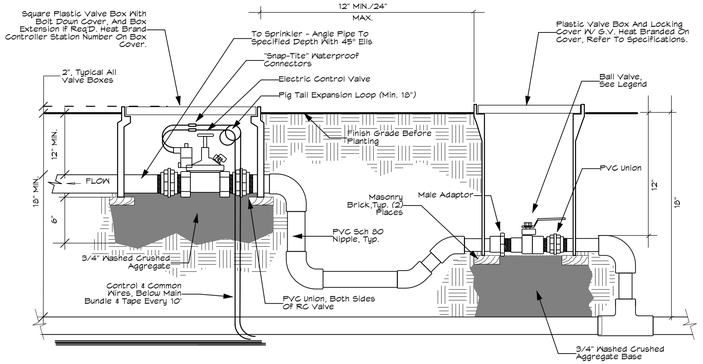
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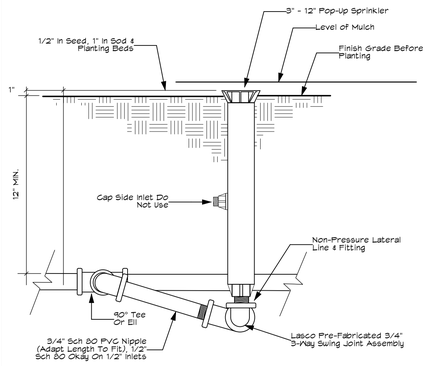
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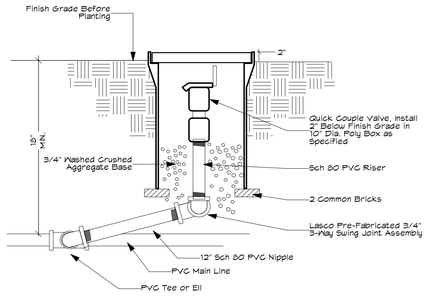
NOTES:
1) INSTALL CONTROL VALVES A MINIMUM OF 18" FROM STRUCTURES OR HARDSCAPING.
2) INSTALL VALVES IN PLANT BEDS WHEREVER POSSIBLE.
3) PLACE VALVE BOX AT RIGHT ANGLES TO STRUCTURES OR HARDSCAPING.
4) INSTALL VALVE BOX SO THAT TOP OF BOX IS FLUSH WITH ADJACENT HARDSCAPING.
5) PLACE AGGREGATE PRIOR TO INSTALLATION OF VALVE BOX.
6) INSTALL VALVE BOXES SO THAT TOP OF BOX IS FLUSH WITH ADJACENT HARDSCAPE.
7) INSTALL ONE BALL VALVE IN BOX IMMEDIATELY UPSTREAM FROM EACH REMOTE CONTROL VALVE.

A / L3 ELECTRIC CONTROL VALVE WITH SHUT OFF
NTS

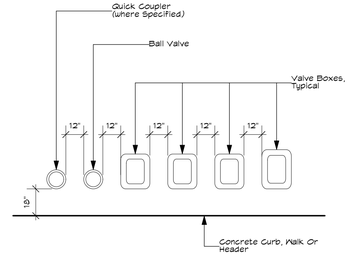


NOTES
1) LOCATE HEAD 6" FROM ALL EDGES IN LAWN AREAS. LOCATE HEAD 12" FROM ALL EDGES IN SHRUB AREAS.
2) LOCATE STREAM SPRAY AND BUBBLERS HEADS 6" FROM ALL EDGES.
3) USE TEFLON PASTE ON ALL MALE THREADS.

B / L3 POP-UP SPRINKLER DETAIL
INCLUDES 4", 6" AND 12" NTS



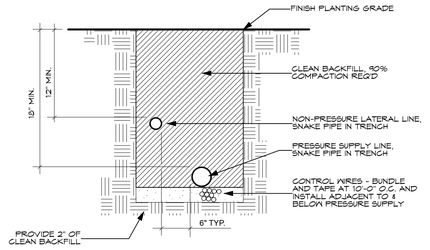
C / L3 QUICK COUPLER DETAIL
NTS



PLAN VIEW

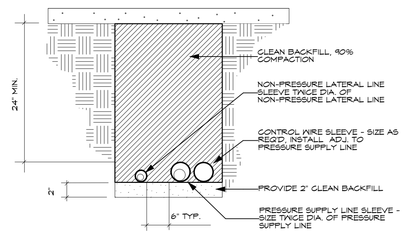
NOTES:
1) CENTER VALVE BOX OVER VALVE ASSEMBLY.
2) LOCATE VALVE BOXES IN GROUND COVER/SHRUB AREAS WHEN POSSIBLE.
3) SET VALVE BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE.

D / L3 VALVE BOX LAYOUT
NTS



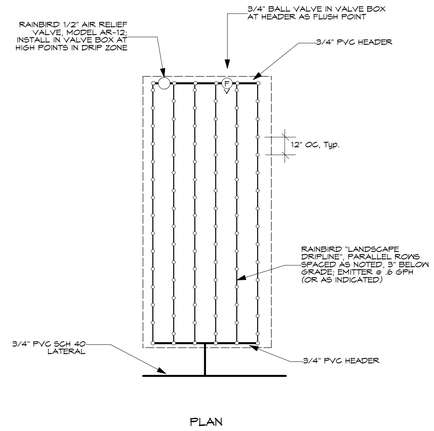
NOTE:
1) PIGTAIL AND LOOP CONTROL WIRE AT ALL CHANGES IN DIRECTION.
2) PROVIDE 18" EXPANSION LOOP AT ALL 90° ANGLES, AND EVERY 100' OF STRAIGHT CURVE RUN.

E / L3 PIPE INSTALLATION IN PLANTED AREA
NTS



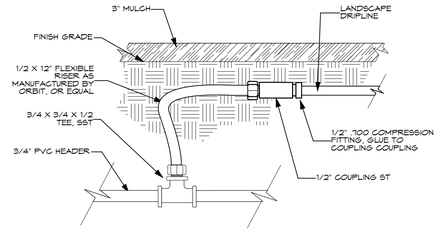
NOTES:
1) ALL SLEEVES TO BE SCH 40 PVC.
2) EXTEND ALL SLEEVES 12" BEYOND EDGE OF HARDSCAPING AT BOTH ENDS.

F / L3 PIPE INSTALLATION UNDER PAVING
NTS

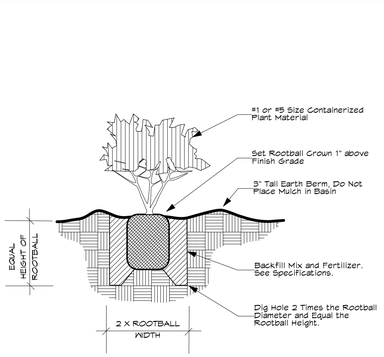


PLAN

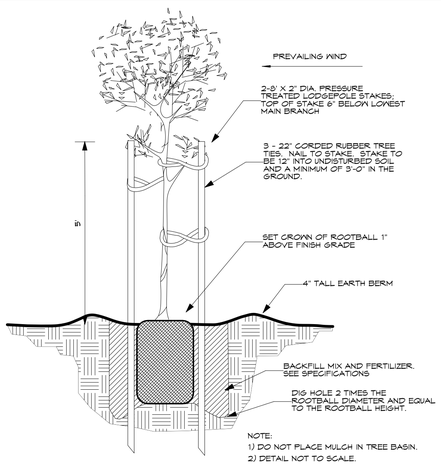
G / L3 DRIP CIRCUIT LAYOUT
NTS



H / L3 POLY TO PVC COMPRESSION FITTING DETAIL
NTS

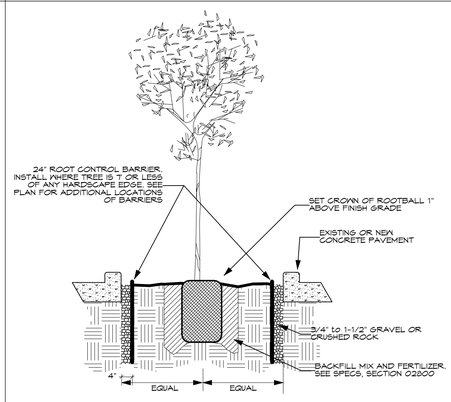


I / L3 SHRUB PLANTING DETAIL
NTS



NOTE:
1) DO NOT PLACE MULCH IN TREE BASIN.
2) DETAIL NOT TO SCALE.

J / L3 TREE PLANTING DETAIL
NTS



NOTE:
1) DO NOT PLACE MULCH IN TREE BASIN.
2) PLANTING HOLE TO BE TESTED FOR DRAINAGE PRIOR TO PLANTING. IF HOLES DO NOT DRAIN WITHIN 4 HOURS CONTACT LANDSCAPE ARCHITECT.
3) INSTALL ROOT BARRIER ON ALL FOUR SIDES OF PLANTER.

K / L3 TREE WELL WITH ROOT BARRIER
NTS

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LANDSCAPE DETAILS

SUN SQUARE

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AMERICAN CANYON, CA
APN #059-020-003

DATE: 1/21/23
MLA JOB #: 2020-28
SCALE: 1" = 20'
DRAWN: DM

L3

DIVISION 2 SITE WORK
SECTION 02750

UNDERGROUND IRRIGATION SYSTEM

PART 1 GENERAL

1.01 SCOPE

A. Work Included: perform all work necessary and required for the construction of the project as indicated. Such work includes but is not limited to the following:

1. Furnish and install complete irrigation system.
2. Trenching and backfilling.
3. Sleeves for irrigation piping and remote control valve wiring under pavements and walls as noted.

B. Related Work in Other Sections: The following items of associated work are included in other sections of these specifications:

1. Landscaping, Section 02800

C. By Others: The following items of work will be performed by others and are not included in the contract.

1. Electrical stub-out for irrigation controller.
2. Irrigation water meter.
3. Water stub-out(s) for irrigation system.

1.02 INSPECTION OF CONDITIONS: Examine related work and surfaces before starting work of this section. Report to the landscape architect, in writing, conditions which will prevent the proper provision of this work. Beginning the work of this section without reporting unsuitable conditions to the landscape architect constitutes acceptance of conditions by the contractor. Any required removal, repair, or replacement of this work caused by unsuitable conditions to be done at no additional cost to the owner.

1.03 CODES, RULES AND SAFETY ORDERS

A. All work and materials to be in full accordance with the latest rules and regulations of safety orders of Division of Industrial Safety; the Uniform Plumbing Code published by the Western Plumbing Officials' Association; and other applicable laws or regulations, including the presiding local plumbing code. Nothing in these drawings or specifications is to be construed to permit work not conforming to these codes. Should the construction documents, or instructions, be at variance with the aforementioned rules and regulations, notify the landscape architect and get instructions before proceeding with the work affected.

B. Furnish and maintain all warning signs, shoring, barricades, red lanterns, etc., as required by the Safety Orders of the Division of Industrial Safety and local ordinances.

C. Contact U.S.A. for location of underground utilities.

1.04 STANDARDS: American Society of Testing and Materials (ASTM).

1.05 PERMITS AND FEES: Obtain all permits and pay required fees to any governmental agency having jurisdiction over the work. Arrange inspections required by local agencies and ordinances during the course of construction as required.

1.06 APPROVAL: Wherever the terms "approve", "approval", or "approved" are used in the specifications, they mean approval of landscape architect in writing.

1.07 WORK SCHEDULE: Submit a proposed work schedule to landscape architect at least 5 days prior to start of work under this Section. After approval, no modification shall be made to this schedule with out written authorization by the landscape architect.

1.08 OBSERVATION SCHEDULE
Schedule a job start meeting with the landscape architect at least 5 days before beginning work under this Section. All requests for observation must be made 72 hours in advance.

A. Job start meeting

The purpose of this conference is to review questions the contractor may have regarding the work, administrative procedures during construction and project work schedule.

B. Irrigation installation and hydrostatic tests

Observation of installation and hydrostatic test results to be made by the landscape architect prior to backfilling of trenches.

C. Pre-maintenance

When all work has been completed a pre-maintenance walk-through will be conducted. If approved, the 90 calendar day maintenance period will begin.

D. Final Observation

Final Observation will be after the 90 calendar day maintenance period and all required work is completed. Please give 1 week notice for this observation meeting.

1.09 SUBSTITUTIONS

A. Specific reference to manufacturer's names and products specified in this Section are used as standards, but this implies no right to substitute other material or methods without written approval of the landscape architect.

B. Installation of any approved substitution is contractor's responsibility. Any changes required for installation of any approved substitution must be made to the satisfaction of the landscape architect and without additional cost to the owner.

1.10 PROTECTION OF EXISTING CONDITIONS

A. Contractor shall acquaint themself with all site conditions. Should utilities or other work not shown on the plans be found during excavations, contractor shall promptly notify landscape architect for instructions as to further action. Failure to do so will make contractor liable for any and all damage thereto arising from their operations subsequent to discovery of such utilities not shown on plans.

1.11 COORDINATION: Coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible.

1.12 PRODUCT HANDLING: Protect work and materials under this Section from damage during construction and storage. Protect polyvinyl chloride (PVC) pipe and fittings from direct sunlight. Beds on which PVC is stored must be full length of pipe. Do not use any pipe or fitting that has been damaged or dented.

1.13 SAMPLES: Landscape architect reserves the right to take and analyze samples of materials for conformity to specifications at any time. Contractor shall furnish samples upon request by the landscape architect. Rejected material shall be removed from the site immediately and replaced at the contractors expense. Cost of testing materials not meeting specifications shall be paid by contractor.

1.14 HYDROSTATIC TESTS
A. Make hydrostatic tests when welded PVC joints have cured at least 24 hours. Apply continuous static water pressure of 100 psi as follows:

1. All piping on the pressure side of control valves shall be tested for two hours.
2. At completion of hydrostatic test, mainline shall be opened at farthest most point from the location of the pump to verify continuity of the mainline.

B. Leaks resulting from tests shall be repaired and tests repeated until system passes tests.

1.15 "AS-BUILT" IRRIGATION DRAWINGS: Contractor shall furnish Record Drawings of the complete irrigation system. Procure from the landscape architect full sized sepias of Contract Drawings. Construction drawings shall be on the construction site at all times while the irrigation system is being installed. Actual location of valves and all irrigation and drainage piping shall be shown on the prints by dimensions from easily identified permanent features, such as buildings, curbs, fences, walks or property lines. Drawings shall show approved substitutions, if any, of material including manufacturer's name and catalog number. The drawings shall be at scale and all indications shall be neat. All information noted on the print shall be transferred to the prints by contractor and all indications shall be recorded in a neat, orderly way. The record drawings shall be turned over to the landscape architect at or before the Final Acceptance of the project.

1.16 CONTROLLER CHARTS

1. As-built drawings shall be approved by the landscape architect before charts are prepared.
2. Provide one controller chart for each controller supplied.
3. The chart shall show the area controlled by automatic controller and shall be the maximum size controller door will allow.
4. The chart is to be reduced drawing of the actual as-built system. However, in the event the controller sequence is not legible when the drawing is reduced, it shall be enlarged to a size that will be readable when reduced.

5. Chart shall be black line print and a different color shall be used to show area of coverage for each station.
6. The chart shall be mounted using Velcro, or an approved equal.
7.When completed and approved, the chart shall be hermetically sealed between two pieces of plastic, each piece being a minimum 20 mils. thick.
8. These charts shall be completed and approved prior to final inspection of the irrigation system.

1.17 MATERIALS TO BE FURNISHED

A. Prior to final inspection the contractor shall furnish the following materials to the owner:

1. Two wrenches for disassembling and adjusting each type of sprinkler head supplied.
2. Two keys for each automatic controller.
3. Four keys for loose key hose bibs and/or hose bibs.
4. Twelve 12 inch pop-up sprinkler bodies.

1.18 CLEAN-UP: Keep all areas of work clean, neat and orderly at all times. Keep paved areas clean during installation. Clean up and remove all debris from the entire work area prior to Final Acceptance to satisfaction of landscape architect.

1.19 FINAL ACCEPTANCE: Work under this Section will be accepted by landscape architect upon satisfactory completion of all work. Upon Final Acceptance, owner will assume responsibility for maintenance of the work. Said assumption does not relieve contractor of obligations under Warranty.

1.20 WARRANTY: In addition to manufacturer's guarantees or warranties, all work shall be warranted for one year from the date of Final Acceptance against defects in material, equipment and workmanship by contractor. Warranty shall also cover repair of damage to any part of the premises resulting from leaks or other defects in materials, equipment and workmanship to the satisfaction of the owner.

PART 2 MATERIALS

2.01 GENERAL: Materials throughout the system shall be new and in perfect condition. At least 14 days prior to beginning work, submit for approval 2 copies of manufacturer's catalog cuts, specifications, and operating instructions of the complete list of materials and assemblies to be installed. Quantities of materials and equipment need not be included. No deviations from the specifications shall be allowed. The decision of the landscape architect shall be final in the determination of the quality of materials and equipment.

2.02 WATER METERS: Shall be provided by others.

2.03 PIPE

A. Mainline piping on pressure side of irrigation control valves:

1. 2" size and greater to be Polyvinyl Chloride (P.V.C.) 1120-1220, Class 315 and shall conform to ASTM D 2241-73 and D 2672-73.
2. Up to and including 1-1/2" size to be Polyvinyl Chloride (P.V.C.) 1120-1220, Schedule 40 and shall conform to ASTM D 1785-73.
3. Galvanized Steel: Standard wall, Schedule 40, capable of working pressure up to 600 psi shall run from the point of connection to back flow prevention device.
4. Piping from the point of connection to the back flow prevention device shall be as approved by local code.

B. Lateral line piping on non-pressure side of irrigation control valves:

1. 2" size and greater to be Polyvinyl Chloride (P.V.C.) 1120-1220, Class 315 and shall conform to ASTM D 2241-73 and D 2672-73.
2. Up to and including 1-1/2" size to be Polyvinyl Chloride (P.V.C.) 1120-1220, Schedule 40 and shall conform to ASTM D 1785-73.

2.04 FITTINGS

A. PVC Fittings: Schedule 40, Polyvinyl Chloride, high impact weight, as manufactured by Sloane, Lasco, medium or approved equal.

B. Fittings for Galvanized Steel Pipe: Schedule 40, standard weight as manufactured by Grinnell, or approved equal.

C. Connections between main and valves shall be PVC Schedule 80 nipples and fittings.

2.05 SLEEVE MATERIALS

A. For Control Wires: PVC 1120-1220, Class 200 pipe or heavy wall galvanized steel conduit.

B. For Water Lines: PVC 1120-1220, Class 200 pipe or heavy wall galvanized steel conduit.

2.06 IRRIGATION CONTROLLERS

A. Controller to be as shown on plans and is to be installed as per detail and manufacturer's specifications.

2.07 IRRIGATION CONTROL VALVES

A. Remote Control Valves: Valves to be as shown on plans and installed per details and manufacturer's specifications.

2.08 CONTROL WIRE

A. Wire: Solid copper wire, U.L. approved for direct burial in ground. Minimum gauge: #14. Common ground wire shall be white.

B. Splicing Materials: Wire connectors shall be Pentite or snap connectors.

C. All wires shall be labeled with the valve number at the controller and valve.

D. 120 wiring shall be as required by local code and installed by an electrician. It shall not be on a switched circuit.

E. Common wire shall be white. Control wires shall be other than white. Use a different color control wire for each controller.

2.09 VALVE BOXES

A. Remote Control Valves: To be Brooks, Green or approved equal, one per valve.

B. Gate Valves and Control Wire Stub-out Locations: To be Brooks, Green or approved equal, one per valve or stub-out location.

2.10 QUICK-COUPLING VALVES

A. Quick coupling valves to be as per plans and details.

B. Furnish 2 valve keys fitted with hose valve assembly.

C. All valve boxes shall be purple in color or clearly labeled by the manufacturer to designate reclaimed water.

2.11 LANDSCAPE DRIP-LINE: Tubing as shown in legend and drawings.

A. Install in parallel and consistent rows at spacing indicated in all specified areas.

B. Install 3" below grade.

2.12 SPRINKLER HEADS

A. Heads as shown in legend and drawings.

2.13 BACK-FLOW PREVENTION ASSEMBLIES

A. Back-flow prevention device as shown in legend and drawings.

PART 3 EXECUTION

3.01 LAYOUT

A. Layout work as accurately as possible to drawings. Drawings are diagrammatic to the extent that swing joints, offsets and all fittings are not shown.

B. Full and complete coverage is required. Contractor shall make any necessary minor adjustments to layout required to achieve full coverage of irrigated areas at no additional cost to owner.

C. Dig trenches wide enough to allow a minimum of 6 in. between parallel pipe lines. Trenches shall be of sufficient depth to provide minimum cover from finish grade as follows:

1. Over PVC pipe on pressure side of irrigation control valve, control wires and quick coupling valves: 18 inches.
2. Over pipe on non-pressure side of irrigation control valve: 12 inches.

3.03 BACK FLOW PREVENTION DEVICE INSTALLATION

A. Install according to local code and manufacturer's instructions.

B. Install with union on discharge side for servicing, or with flanges, as required.

3.04 SLEEVING

A. Where pipes or wires must be installed under paving place them in sleeves with a 24" minimum depth and sufficient size to accommodate irrigation lines and/or wires.

B. Lack of pipe chase coordination does not relieve the contractor from installing the pipes and control wire shown on the drawing. In the event pipe chases were not installed prior to paving the contractor shall bore under the paving to accommodate pipes and wires.

C. All control wire shall be in Schedule 40 conduit from trench to controller. When valves are grouped together allow 12" between valve boxes, each valve in a separate box, (not to be placed in drainage swales, but kept in ground cover areas.)

3.05 PIPE LINE ASSEMBLY

A. Install pipe in accordance with manufacturer's instructions.

B. Solvent weld all PVC pipe and fittings using solvents (including primer) and methods as recommended by the manufacturer, except where screw connections are required. Clean pipe and fittings of dirt and moisture before assembly. PVC pipe may be assembled on ground surface beside trench. Snake pipe from side to side of trench bottom to allow for expansion and contraction. Make all connections between PVC pipe and metal valves or pipe with threaded fittings using PVC male adapters.

C. Use Teflon tape on all threaded fittings.

D. Trust blocks shall be installed where the irrigation main changes direction as at ells and tees and where the irrigation main terminates. Pressure tests shall not be made for a period of 36-48 hours following the completion of pouring of the thrust blocks. Concrete thrust blocks for supply mains shall be sized and placed in strict accordance with the pipe manufacturer's specifications and shall be of an adequate size and so placed as to take all thrust created by the maximum internal water pressure.

3.06 IRRIGATION CONTROL VALVES:

A. Install control valves in valve boxes where shown and group together where practical. Place no closer than 18 in. to walk edges, buildings and walls and other valves. Valve boxes shall be placed in relation to finish grade as follows:

1. 1" above grade when no mulch is used
2. 1/2" with sod lawn
3. 1 1/2" with sod lawn
4. 2" with plant beds

B. The contractor shall paint on the cover of each valve box in 2" white stenciled letters with the value number as designated on the plan.

C. Clearance between the highest part of the valve and the bottom of the valve box lid shall be 2" minimum and 4" maximum. (Lid must not rest on any part of valve and valves must not be buried too deep for convenient access.)

D. Clearance between the top of the piping and the bottom of the valve box and/or the valve box knock outs, shall be a minimum of 2". (The box must not rest on the piping.)

E. Clearance between the valve and the sides of the valve box shall be a minimum of 3".

3.07 SPRINKLER HEADS

A. Install heads as per details.

B. Nozzles may be changed to control precipitation rate and G.P.M. with approval from the landscape architect.

3.08 QUICK COUPLING VALVES: Quick coupling valves to be installed as per detail.

3.09 AUTOMATIC CONTROLLER

A. Install per local code and manufacturer's instructions.

B. Grounding of Irrigation controller shall be as per manufacturer's recommendations and as per local code.

3.10 CONTROL WIRING

A. Install control wires with sprinkler mains and laterals in common trenches wherever possible. Lay to the side of pipe line. Provide looped slack at valves of 18" and snake wires in trench to allow for contraction of wires. Tie wires in bundles at 10 ft. intervals. Provide expansion loop at all 90 degree angles, and every 100' of straight wire run.

B. Control wire splices at remote control valves to be crimped and sealed with specified splicing materials. Line splices will be allowed only on runs of more than 500 ft. All line splices to be in separate valve box.

C. Install one continuous ground wire and one extra wire to all valves.

3.11 CLOSING OF PIPE AND FLUSHING OF LINES

A. Thoroughly flush out all water lines before installing heads, valves and other hydrants.

B. Test as specified.

3.12 PRESSURE TESTS

A. The contractor shall partially backfill, leaving all fittings exposed before testing.

B. Cap all valve openings and test the mainline pipe at full line working pressure and visually check all fittings.

3.13 BACKFILL AND COMPACTING

A. After system is operating and required tests and inspections have been made, backfill excavations and trenches with clean soil, free of rubbish. All pipe shall have a bedding of 2" under and 4" over of select, rock free backfill.

B. Backfill for all trenches, regardless of the type of pipe covered, shall be compacted to minimum 95% density under pavements, 85% under planted areas.

C. Compact trenches in areas to be planted by thoroughly flooding the backfill. Jetting process may be used in those areas.

D. Dress off all areas to finish grades.

E. Any settling more than 1" which may occur during the guarantee period shall be brought to finish grade by the contractor at his expense.

END OF SECTION 02750

SECTION 02800
LANDSCAPING

PART 1 GENERAL

1.01 SCOPE

A. Work Included: Perform all work necessary and required for the construction of the project as indicated. Such work includes but is not limited to the following:

1. Site preparation including weed and rubble removal.
2. Laboratory soil analysis.
3. Furnishing and spreading topsoil.
4. Finish grading of planted areas.
5. Soil amendment.
6. Planting.

B. Related Work: The following items of associated work are included in other sections of these specifications.

1. Section 02750: Underground Irrigation System.

C. Use Teflon tape on all threaded fittings.

D. Thrust blocks shall be installed where the irrigation main changes direction as at ells and tees and where the irrigation main terminates. Pressure tests shall not be made for a period of 36-48 hours following the completion of pouring of the thrust blocks. Concrete thrust blocks for supply mains shall be sized and placed in strict accordance with the pipe manufacturer's specifications and shall be of an adequate size and so placed as to take all thrust created by the maximum internal B. Related Work: The following items of associated work are included in other sections of these specifications.

1. Section 02750: Underground Irrigation System.

C. By Others: The following items of work will be performed by others and are not included in the contract.

1.02 REQUIREMENTS OF REGULATORY AGENCIES

A. Perform work in accordance with all applicable laws, codes, and regulations required by authorities having jurisdiction over such work and provide for all inspections and permits required by federal, state, and local authorities in furnishing, transporting and installing materials.

B. Certificates of inspection required by law for transportation shall accompany the invoice for each shipment of plants. File copies of certificates with landscape architect after acceptance of material. Inspections of federal and state governments at place of growth does not preclude rejection of plants at project site.

1.03 SELECTION, TAGGING AND ORDERING OF PLANT MATERIAL

A. Submit documentation to landscape architect at least 7 days prior to start of work under this section that all plant material has been ordered. Arrange procedure for observation with landscape architect at time of submission.

B. Plants shall be subject to observation and approval by landscape architect at place of growth or upon delivery for conformity to specifications. Such approval shall not impair the right of observation and rejection during progress of the work. Submit written request for observation of plant material at place of growth to landscape architect. Written request shall state the place of growth and the quantity and variety of plants to be observed. Landscape architect reserves the right to refuse observation at this time if, in his judgment, a sufficient number of plants are not available for observation or not in the landscape architect's contract.

C. Substitution of plant material will not be permitted unless authorized in writing by landscape architect. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest equivalent size or variety with corresponding adjustment of contract price.

1.04 COORDINATION: Contractor shall coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible.

1.05 INSPECTION OF SITE: Contractor shall visit site and inspect conditions as they exist prior to submitting bid. Site dimensions, water pressure and general conditions shall be verified prior to beginning of any work.

1.06 INTENT OF DRAWINGS AND SPECIFICATIONS: It is the intent of the drawings and specifications to provide planting with plants in vigorous growth, ready for owner's use. Any items not specifically shown in the drawings or called for in the specifications, but normally required to conform with such intent, are to be considered as part of the work. Written dimensions take precedence over scale dimensions.

1.07 APPROVAL: Wherever the terms "approve", "approval" or "approved" are used herein, they mean approval of landscape architect in writing.

1.08 PRODUCT HANDLING

A. Furnish standard products in manufacturer's standard containers bearing original labels showing quantity, analysis and name of manufacturer.

B. Store products with protection from weather or other conditions which would damage or impair the effectiveness of the product.

1.09 PROTECTION OF EXISTING PLANTS TO REMAIN

A. Do not store materials or equipment, permit burning, or operate or park equipment within designated plant protection zones as specified on the plans.

B. Notify landscape architect in any case where contractor feels grading or other construction called for by Contract Documents may damage existing plants to remain. Do not proceed with such work until directed by landscape architect.

C. If existing plants are damaged during construction, contractor shall replace such plants of the same species and size as those damaged at no cost to owner. Determination of extent of damage and value of damaged plant shall rest solely with landscape architect.

1.10 GRADING

A. Prior to planting grading will be brought to within .10 + foot of finish grade with soil suitable for planting by the landscape contractor. It is the responsibility of the landscape contractor to verify that no conflict exists with the grading plan. Fine finish grading will be done by the landscape contractor.

B. Finish grade in ground cover areas shall be 2 inches below surrounding concrete or asphalt. In lawn areas, sodded areas shall be 2 inches and seeded areas shall be 1 inch below sidewalks, header boards, or mow strips and examined by the landscape architect, owner, or his representative.

1.11 CLEAN-UP: Keep all areas of work clean, neat and orderly at all times. Keep all paved areas clean during planting and maintenance operations. Clean up and remove all deleterious materials and debris from the entire work area prior to Final Acceptance to the satisfaction of landscape architect. The landscape contractor shall bear final responsibility for proper surface drainage of planted areas. Any prior work done by another party or obstructions on the site which the contractor feels precludes establishing proper drainage shall be brought to the attention of the landscape architect, owner or his representative for correction or the relief of responsibility.

1.12 SAMPLES, TESTS AND SUBMITTALS: Landscape architect reserves the right to take and analyze samples of materials for conformity to specifications at any time. Contractor shall furnish samples and/or manufacturer's specification sheets for any construction material or item upon request by the landscape architect. Rejected materials shall be immediately removed from the site at contractor's expense. The cost of testing materials not meeting specifications shall be paid by the contractor.

1.13 PROJECT SCHEDULE: Contractor shall submit for approval a complete work schedule indicating tentative dates for inspections. This schedule is to be submitted prior to the job start meeting.

1.14 OBSERVATION SCHEDULE: Schedule a job start meeting with the landscape architect at least 5 days before beginning work under this Section. All requests for observation must be made 72 hours in advance.

A. Job Start Meeting
The purpose of this conference is to review questions the contractor may have regarding the work, administrative procedures during construction and project work schedule.
B. Planting - Fine Grading and Soil Preparation
The fine grading and soil preparation of all planting areas must be observed prior to installation of plant material.
C. Plant Material
Landscape architect shall observe plant material for quality prior to planting. Plants shall be subject to observation and approval at place of growth or upon delivery for quality, size and variety; such approval shall not impair the right of inspection and condition of ball and roots, latent defects or injuries. Rejected plants shall be removed immediately from site.
D. Plant Layout
Layout plants (in containers) in locations shown on drawings. Landscape architect will check location of plants in the field and adjust to exact position before planting begins. Landscape architect reserves the right to refuse inspection if, in his opinion, an insufficient quantity of plants is available for layout check.
E. Pre-maintenance
When all work has been completed a pre-maintenance walk-through will be conducted. If approved, the 90 calendar day maintenance period will begin.
F. Final Observation
Final Observation will be after the 90 calendar day maintenance period and all required work is completed. Please give 1 week notice for this observation meeting.

1.15 MAINTENANCE

A. All landscape areas shall be substantially weed free at beginning of maintenance period and at final acceptance.

B. Begin maintenance after each plant and each portion of lawn or ground cover is installed and continue until Final Acceptance.

C. Maintenance Period shall begin upon inspection and approval by landscape architect and shall be for 90 calendar days.

D. Maintenance of new planting shall consist of watering, cultivating, weeding, fertilizing, mulching, re-staking, tightening and repairing of guys, resetting plants to proper grades or upright position, restoration of the plant saucer, and furnishing and applying such sprays and fertilizers as are necessary to keep the plants free of insects and disease and in thriving condition.

E. Protect planting areas and plants at all times against damage of all kinds for duration of maintenance period. Maintenance includes temporary protection fences, barriers and signs as required for protection. If any plants become damaged or injured, treat or replace as directed by landscape architect at no additional cost to owner.

1.16 FINAL ACCEPTANCE: Work under this Section will be accepted by landscape architect upon satisfactory completion of all work, including maintenance, but exclusive of replacement of plant materials under the Warranty Period. Upon Final Acceptance, the owner will assume responsibility for maintenance of the work.

1.17 WARRANTY PERIOD AND REPLACEMENTS

A. Contractor shall warrant that all plant material except annual color planted under this contract will be healthy and in flourishing condition of active growth one year from date of Final Acceptance.

B. Any delay in completion of planting operations which extends the planting period shall extend the Maintenance and Warranty Periods correspondingly.

C. Replace, without cost to owner, and as soon as weather conditions permit, all dead plants and all plants not in vigorous, thriving condition, as determined by landscape architect during and at the end of Warranty Period. Plants shall be free of dead or dying branches and branch tips, and shall bear foliage of a normal density, size and color. Replacements shall closely match adjacent specimens of the same species and shall be subject to all requirements of this specification.

D. Contractor shall not be held responsible for failures due to neglect by owner, vandalism, or acts of god, etc., during Warranty Period. Report such conditions to landscape architect in writing.

PART 2 MATERIALS

2.01 PLANTS

A. Plant Quality: Plants shall be fresh, well established, vigorous, of normal habit of growth, free of disease, insects, insect eggs and larvae. Roots shall be healthy and extend to the bottom and sides of the container, and rooting shall be extensive enough to hold the root ball together during planting, but not so dense as to discourage root establishment into surrounding soils. Roots shall not show any signs of restriction due to kinked, circular, or distorted growth. No trees will be accepted that will not stand on their own trunks after the nursery stakes have been removed. All plants will be inspected prior to planting and may be rejected if noted quality standards are not met.

B. Plant Quantity: Plant materials shall be furnished in size, quantities, species and at the spacing indicated or as noted on the plans. Ground cover material shall be provided in quantity adequate to fill the entire ground cover areas at the spacing shown.

C. Plant Spacing: No planting, except for ground covers, espaliers and vines shall be placed closer than two feet to pavement, structures or other landscape edges. Ground covers adjacent to pavement, structures or landscape edges shall be no closer to these than 75% of their spacing. No plants that would obstruct the sprinkler coverage shall be placed closer than 30% of the radius of the sprinkler throw as specified by the sprinkler manufacturer at the optimum operating pressure unless approved by the landscape architect.

2.02 LANDSCAPE AREA PLANTING SOILS

A. Soil to be tested by testing agency as per specifications.

B. All landscape area planting soils shall be equal or coarser in texture to the original on-site topsoil. All landscape area soils shall be free from stones larger than 1" in size, sub-soil, refuse, plants or roots, clods, weeds, sticks, or other extraneous material. All landscape area soils shall be tested by an approved soils laboratory for horticultural suitability and verified to be capable of sustaining healthy plant life. Landscape area planting soils may be obtained through stockpiling of existing topsoil or imported soil of equal texture and quality as determined by approved soil laboratory analysis.

C. Soil Chemistry: All planting soils shall meet the following soil chemistry parameters.

1. Reaction - pH of saturated paste = 5.5 to 7.5
2. Salinity (Electrical conductivity in mmho/cm) = <4.0
3. Sodium Adsorption Ratio (SAR) = <6.0
4. Sodium = <5.0 milliequivalents per liter
5. Chloride = <5.0 milliequivalents per liter
6. Boron (Parts Per Million in extract) = <1.0

D. Soil Fertility: Adequate amounts of nitrogen, potassium, phosphorus, calcium, and magnesium shall be available to support healthy plant growth. Soil shall be analyzed for fertility and any deficiencies shall be treated with inorganic fertilizer amendments prior to planting.

E. Lime Treated Soil: If lime is used for soil compaction in landscape areas, all lime treated soil shall be removed to a depth equal or more to the depth of the treated soil. Soil shall be replaced with import soil as described in the landscape specifications.

2.03 PREPARATION OF LANDSCAPE AREA PLANTING SOILS

A. Prior to any work in planting areas all construction debris shall be removed.

B. Structural fill and/or compacted engineered fill and/or any other soil deemed unsuitable for horticultural use as defined by Sections 2.2-A, 2.2-B and 2.2-C, shall be excavated and removed to a depth of 12 inches in landscape planting areas by the landscape contractor. Replacement planting soil shall be equal or coarser to the on-site soil in texture. This may be obtained through stockpiling of existing topsoil or imported soil of equal quality as determined by approved soil laboratory analysis. It shall be free from stones larger than 1 in. in size, sub-soil, refuse, plants or roots, clods, weeds, sticks, or other extraneous material. It shall be capable of sustaining healthy plant life.

C. All landscape area soils shall be ripped in two directions to a depth of 12 inches. In areas not accessible by large equipment, ripping shall be accomplished by small backhoe or manually to thoroughly cultivate the soil to a depth of 12 inches.

D. Landscape area planting soil, imported or otherwise, shall be spread evenly over the site. Minimum depth of friable soil shall be 12 inches deep in all landscape planting areas and finish surface shall be within one inch of finish grade. Import topsoil shall be supplied by the landscape contractor to meet this requirement and shall meet all specifications as defined Sections 2.2-A, 2.2-B and 2.2-C. Imported landscape area planting soils shall be compacted to 85% relative compaction. Never apply the topsoil when the site or the topsoil is wet.

2.04 COMMERCIAL FERTILIZER

A. Pre-plant fertilizer for soil incorporation shall consist of the following percent by weight

6% Nitrogen
20% Phosphoric Acid
20% Potash

B. Post Planting/Surface Application Fertilizer:

16% Nitrogen
8% Phosphoric Acid
8% Potash

C. Fertilizer requirement is subject to change based on soil testing for horticultural suitability.

2.05 SOIL AMENDMENTS

A. Organic Amendment: Shall be nitrolized and derived from fir wood residuals.

B. Physical Properties: 1/2" minus fir bark, nitrolized fortified or entranced.

C. Chemical Amendments: As required by soil analysis with approval of landscape architect.

2.06 STAKING MATERIALS

A. Contractor shall use staking materials necessary to meet requirements of specifications, subject to approval of landscape architect.

B. Tree Stakes: 2" x 2" X 8' lodgepole pine pressure treated stakes. Construction heart grade. (Do not drive stakes through the rootball). Use 2 stakes per tree.

C. Tree Ties: Corded rubber tree ties, 18" without wire.

2.07 ROOT BARRIERS

A. "Root Solutions" control planter, or equal. Install according to local code and manufacturer's instructions. Use in all areas where tree is within 7 feet of any walkway, wall, building or other structural edge. Linear type barrier shall be used in all cases. Linear barriers shall be installed a minimum of 7 feet to either side of tree's relative position to sidewalk or structural edge.

B. All root barriers to be 24" deep, interlocking linear panels.

C. All root barriers shall be installed 4" from the back of curb or other hardscape edge with 4" of 3/4" gravel drain rock 24" deep on the root barrier side away from the tree.

2.08 WATER: Furnished by owner. Transport as required.

2.09 MULCH: Fir bark 1" to 2", free of sticks, dirt, dust and other debris, as approved, to a depth of 3" to be placed in all landscaped areas except where flats have been planted or annual beds and drainage swales. Fir bark, 1/2" minus, free of sticks, dirt, dust and other debris, as approved, to a depth of 1" to be placed in all landscaped areas where flats have been planted or in annual beds. Shredded bark mulch shall be used in conjunction with jute netting on all slopes greater than 6:1.

2.10 PRE-EMERGENT WEED CONTROL: All herbicides used to control weeds shall comply with all governmental regulations and shall be appropriate to weed species. Contact the local county agricultural agent or pest control advisor for proper herbicide recommendations. Follow manufacturers instructions carefully

PART 3 EXECUTION

3.01 HANDLING OF PLANT MATERIAL

A. Canned stock shall be removed carefully after cans have been cut on two sides. Do not use spade to cut cans. Do not lift or handle container plants by tops, stems, or trunks at any time.

3.02 PREPARATION OF SUB-GRADE AND/OR EXISTING SOILS

A. Prior to any work in planting areas by landscape contractor, the general contractor shall clear all construction debris from planting areas.

B. Soil shall be ripped in two directions to a depth of 12". In areas not accessible by large equipment, ripping shall be accomplished by small backhoe or manually.

3.03 SPREADING OF TOPSOIL

A. After sub-grade has been prepared, the landscape contractor shall be responsible for furnishing and installing topsoil to within (1) inches of finish grade.

B. Topsoil should be spread evenly over the site. Minimum depth of friable to be 12 inches within five feet of all structures and 24 inches deep in all other areas. If this condition does not exist on the site, the balance of topsoil shall be imported by the landscape contractor to meet this requirement. Import soil shall be compacted to 85% relative compaction. Never apply the topsoil when the site or the topsoil is wet.

3.04 AMENDMENT OF SOIL

A. Apply amendments to all planting and lawn areas at the following rates per 1,000 sq.ft. at zero to eight inches depth:

8 cubic yards organic amendment as specified.
20 pounds pre-plant fertilizer
Additional amendments as determined from soil test

B. Incorporate thoroughly with top 8 in. soil layer and remove stones over 1 in. in diameter, roots, clods, weeds, and other extraneous material. Bring amended soil to finish grades and elevations shown on Contract Documents. Do not work soils under frozen or muddy conditions.

3.05 SURFACE DRAINAGE OF PLANTED AREAS: Landscape Contractor shall bear final responsibility for proper surface drainage of planted areas. Any discrepancy in the drawings or specifications, obstructions on the site, or prior work done by another party, which contractor feels precludes establishing proper drainage shall be bought to the attention of landscape architect in writing for correction or relief of said responsibility.

3.06 EXCAVATION OF PLANTING AREAS

A. Excavate container grown tree, shrub, and vine pits to the following dimensions:

1. Two times as large in diameter as the original growing container (Rhododendron and azaleas 3 times the diameter)
2. The depth should be equal to the root ball height.

B. Scarify all sides of planting hole. Auger through structural fill, compacted soil or hardpan if encountered or as directed by landscape architect.

3.07 DRAINAGE, DETRIMENTAL SOIL AND OBSTRUCTIONS

A. Notify landscape architect in writing of all soil or drainage conditions contractor considers detrimental to growth of plant material. State condition and submit proposal and cost estimate for correcting condition.

3.08 PLANTING OPERATIONS

A. Protect plants at all times from sun or drying winds. Plants that cannot be planted immediately on delivery shall be kept in the shade, well protected, and shall be kept well watered.

B. Planting Soil (excluding trees):

2/3 Existing Soil
1/3 Organic Amendments

C. Prior to planting test hole for drainage by filling with water, if hole does not drain within four hours, do not plant. Contact landscape architect.

D. Use planting soil to backfill plant pits. Crown of root ball shall be 1" above finished grade. Set plant plumb and brace rigidly in position until planting soil has been tamped solidly around the ball and roots. When plant pits have been backfilled approximately 2/3 full, water thoroughly, saturating rootball, before installing remainder of the planting soil to top of pit, eliminating all air pockets.

E. Smooth planting areas to conform to specified grades after full settlement has occurred.

F. Form saucer with 4 in. high berm around tree and shrub pits 12 inches wider that the root ball diameter.

G. Water all plants immediately after planting.

3.09 STAKING

A. Staking shall be completed immediately after planting. Plants shall stand plumb after staking.

B. Locate stakes in position relative to the prevailing wind as shown on detail.

C. Attach tree straps as per details.

D. Need for auxiliary stake shall be determined in the field by the landscape architect and shall only be used when trees are exceptionally spindly. If necessary, place auxiliary stake adjacent to tree leader and tie with polyethylene nursery tape at 10 inch intervals. Auxiliary stake to be bamboo or equal.

3.10 PRUNING: Prune plants only at the time of planting and according to standard horticultural practices to preserve the natural character of the plant. Trees shall be pruned at the direction of the landscape architect in accordance with current I.S.A. Standards. Remove all dead wood, suckers and broken or badly bruised branches. Use only clean sharp tools. Do not prune to compensate for root loss. Landscape contractor is responsible for replacement of all improperly pruned plant material.

3.11 GROUND COVER PLANTING

A. Plant ground cover plant at optimum depth for proper growth. Do not bury deeper than the original soil level which was established in the nursery can. Avoid air pockets.

B. Apply post plant or surface application fertilizer at the rate of 5 lbs. per 1000 sq.ft. Water bed thoroughly after fertilizer application. Wash all fertilizer from leaves of plant materials.

3.11 BIOSWALE SOD

A. To be "Biofiltration Sod" as produced by Delta Bluegrass Company, or approved equal.

3.12 SOD BED PREPARATION

A. Roll amended soil with 200 lb. water ballast roller.

B. Sod immediately thereafter, provided the sod bed has remained in a friable condition.

3.13 SODDING OPERATIONS

A. Sod must be delivered to site within 24 hours of cutting. Lay sod so that adjacent strips butt tightly with no spaces between strips. Lay sod on slopes and mounds with strips parallel to contours. Stagger joints and do not overlap seams. Sodded areas shall be flush with adjoining seeded areas.

B. Tamp and roll sod thoroughly to make contact with sod bed.

C. Apply post planting fertilizer at a rate of 5 lbs. per 1000 s.f.

D. Water sod thoroughly.

E. No portion of the sod lawn will be allowed to dry out until the sod is well rooted.

F. Supplemental Temporary Irrigation: Contractor shall be responsible for temporary supplemental irrigation of all bio-retention areas through the sod establishment period. Method of irrigation application is discretionary and may include hand watering or installation of a temporary, above grade overhead spray circuit. Any replacement of sod necessary for loss or damage to sod due to lack of water shall be the responsibility of the contractor at contractor's expense.

PART 4 TREE PRESERVATION

4.01 CONSTRUCTION IMPACT: The impact of construction within the project area will be minimal when appropriate protection measures are implemented. The following specifications have been developed to minimize impact on the area.

A. The landscape architect shall be called to inspect and verify staked location of trenches within the project zone. No trenching, pruning or tree removal shall take place without the approval of the landscape architect.

B. The smallest possible equipment shall be used for all construction work to minimize damage to the existing trees.

C. If the installation of storm drains or irrigation lines is to occur within the drip line of any major tree, a professional arborist shall be called upon to inspect the tree and determine whether head pruning will be necessary to balance the projected loss of roots.

D. Following completion of grading, all soil shall be brought back to original grade. No additional soil shall be allowed to remain at the base of any shrub or tree, and grade shall not be changed to allow collection of surface drainage at the base of any shrub or tree.

E. Minimal disturbance to the natural setting is to occur during trenching and installation of pipe lines. The mainlines are to be set 18" below grade.

F. Trenches shall be the minimum width possible to accommodate the specified diameter of pipe.

G. Existing foliage shall be preserved wherever possible. When it becomes necessary to remove any limbs from remaining trees the following guidelines shall be follow

EXHIBIT C
Applicant Confirmation of Conditions of Approval
Sun Square Mixed-Use Design Permit
(FILE NO. PL21-0020)

As shown by my signature below, I confirm that I understand and agree to abide by the conditions of approval included in the Planning Commission Resolution dated April 27, 2023.

_____ _____
Applicant's signature Date

_____
Applicant's name

_____ _____
Property Owner's signature Date

_____
Property Owner's name

Please return signed confirmation to the City of American Canyon Community Development Department, 4381 Broadway, Suite 201, American Canyon, CA 94503

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YOCHA DEHE
CULTURAL RESOURCES

August 18, 2022

City of American Canyon
Attn: Nicolle Hall, Administrative Technician
4381 Broadway St., Suite 201
American Canyon, CA 94503

RE: American Canyon 6th Cycle Housing Element YD-03152022-04

Dear Ms. Hall:

Thank you for the consultation meeting on, August 08, 2022, regarding the proposed American Canyon 6th Cycle Housing Element. We appreciate you taking the time to discuss the project.

Based on the information provided during our consultation meeting, the Tribe has concerns that the project could impact known cultural resources. Therefore, we request that you incorporate Yocha Dehe Wintun Nation's Treatment Protocol into the mitigation measures for this project. Please submit the updated mitigation measures to the Cultural Resources Department once completed. We respectively decline any comment on the project at this time.

Should you have any questions, please feel free to contact:

CRD Administrative Staff
Yocha Dehe Wintun Nation
Office: (530) 796-3400
Email: THPO@yochadehe-nsn.gov

Please refer to identification number YD – 03152022-04 in any correspondence concerning this project.

Thank you for providing us with this notice and the opportunity to comment.

Sincerely,

DocuSigned by:
5ED632FDB9C34EA...
Tribal Historic Preservation Officer

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YOCHA DEHE
CULTURAL RESOURCES

Treatment Protocol for Handling Human Remains and Cultural Items Affiliated with the Yocha Dehe Wintun Nation

The purpose of this Protocol is to formalize procedures for the treatment of Native American human remains, grave goods, ceremonial items, and items of cultural patrimony, in the event that any are found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground disturbing activity. This Protocol also formalizes procedures for Tribal monitoring during archaeological studies, grading, and ground-disturbing activities.

I. Cultural Affiliation

The Yocha Dehe Wintun Nation ("Tribe") traditionally occupied lands in Yolo, Solano, Lake, Colusa and Napa Counties. The Tribe has designated its Cultural Resources Committee ("Committee") to act on the Tribe's behalf with respect to the provisions of this Protocol. Any human remains which are found in conjunction with Projects on lands culturally-affiliated with the Tribe shall be treated in accordance with Section III of this Protocol. Any other cultural resources shall be treated in accordance with Section IV of this Protocol.

II. Inadvertent Discovery of Native American Human Remains

Whenever Native American human remains are found during the course of a Project, the determination of Most Likely Descendant ("MLD") under California Public Resources Code Section 5097.98 will be made by the Native American Heritage Commission ("NAHC") upon notification to the NAHC of the discovery of said remains at a Project site. If the location of the site and the history and prehistory of the area is culturally-affiliated with the Tribe, the NAHC contacts the Tribe; a Tribal member will be designated by the Tribe to consult with the landowner and/or project proponents.

Should the NAHC determine that a member of an Indian tribe other than Yocha Dehe Wintun Nation is the MLD, and the Tribe is in agreement with this determination, the terms of this Protocol relating to the treatment of such Native American human remains shall not be applicable; however, that situation is very unlikely.

III. Treatment of Native American Remains

In the event that Native American human remains are found during development of a Project and the Tribe or a member of the Tribe is determined to be MLD pursuant to Section II of this Protocol, the following provisions shall apply. The Medical Examiner shall immediately be notified, ground disturbing activities in that location shall cease and the Tribe shall be allowed, pursuant to California Public Resources Code Section 5097.98(a), to (1) inspect the site

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of the discovery and (2) make determinations as to how the human remains and grave goods should be treated and disposed of with appropriate dignity.

The Tribe shall complete its inspection and make its MLD recommendation within forty-eight (48) hours of getting access to the site. The Tribe shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be disturbed in the future.

The Tribe may wish to rebury said human remains and grave goods or ceremonial and cultural items on or near the site of their discovery, in an area which will not be subject to future disturbances over a prolonged period of time. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code Sections 5097.98(a) and (b).

The term "human remains" encompasses more than human bones because the Tribe's traditions call for the burial of associated cultural items with the deceased (funerary objects), and/or the ceremonial burning of Native American human remains, funerary objects, grave goods and animals. Ashes, soils and other remnants of these burning ceremonies, as well as associated funerary objects and unassociated funerary objects buried with or found near the Native American remains are to be treated in the same manner as bones or bone fragments that remain intact.

IV. Non-Disclosure of Location of Reburials

Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, Cal. Govt. Code § 6250 et seq. The Medical Examiner shall withhold public disclosure of information related to such reburial pursuant to the specific exemption set forth in California Government Code Section 6254(r). The Tribe will require that the location for reburial is recorded with the California Historic Resources Inventory System ("CHRIS") on a form that is acceptable to the CHRIS center. The Tribe may also suggest that the landowner enter into an agreement regarding the confidentiality of site information that will run with title on the property.

V. Treatment of Cultural Resources

Treatment of all cultural items, including ceremonial items and archeological items will reflect the religious beliefs, customs, and practices of the Tribe. All cultural items, including ceremonial items and archeological items, which may be found at a Project site should be turned over to the Tribe for appropriate treatment, unless otherwise ordered by a court or agency of competent jurisdiction. The Project Proponent should waive any and all claims to ownership of

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Tribal ceremonial and cultural items, including archeological items, which may be found on a Project site in favor of the Tribe. If any intermediary, (for example, an archaeologist retained by the Project Proponent) is necessary, said entity or individual shall not possess those items for longer than is reasonably necessary, as determined solely by the Tribe.

VI. Inadvertent Discoveries

If additional significant sites or sites not identified as significant in a Project environmental review process, but later determined to be significant, are located within a Project impact area, such sites will be subjected to further archeological and cultural significance evaluation by the Project Proponent, the Lead Agency, and the Tribe to determine if additional mitigation measures are necessary to treat sites in a culturally appropriate manner consistent with CEQA requirements for mitigation of impacts to cultural resources. If there are human remains present that have been identified as Native American, all work will cease for a period of up to 30 days in accordance with Federal Law.

VIII. Work Statement for Tribal Monitors

The description of work for Tribal monitors of the grading and ground disturbing operations at the development site is attached hereto as Addendum I and incorporated herein by reference.

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YOCHA DEHE
CULTURAL RESOURCES

ADDENDUM I

Yocha Dehe Wintun Nation
Tribal Monitors
Description of Work and Treatment Protocol

I. Preferred Treatment
The preferred protocol upon the discovery of Native American human remains is to (1) secure the area, (2) cover any exposed human remains or other cultural items, and (3) avoid further disturbances in the area.

II. Comportment
All parties to the action are strongly advised to treat the remains with appropriate dignity, as provided in Public Resource Code Section 5097.98. We further recommend that all parties to the action treat tribal representatives and the event itself with appropriate respect. For example, jokes and antics pertaining to the remains or other inappropriate behavior are ill advised.

III. Excavation Methods
If, after the Yocha Dehe Tribal representative has been granted access to the site and it is determined that avoidance is not feasible, an examination of the human remains will be conducted to confirm they are human and to determine the position, posture, and orientation of the remains. At this point, we recommend the following procedures:

(A) Tools. All excavation in the vicinity of the human remains will be conducted using fine hand tools and fine brushes to sweep loose dirt free from the exposure.

(B) Extent of Exposure. In order to determine the nature and extent of the grave and its contents, controlled excavation should extend to a full buffer zone around the perimeter of the remains.

(C) Perimeter Balk. To initiate the exposure, a perimeter balk (especially, a shallow trench) should be excavated, representing a reasonable buffer a minimum of 10 cm around the maximum extent of the known skeletal remains, with attention to counter-intuitive discoveries or unanticipated finds relating to this or other remains. The dirt from the perimeter balk should be bucketed, distinctly labeled, and screened for cultural materials.

(D) Exposure Methods. Excavation should then proceed inward from the walls of the balk as well as downward from the surface of the exposure. Loose dirt should be scooped out and brushed off into a dustpan or other collective device. Considerable care should be given to ensure that human remains are not further impacted by the process of excavation.

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(E) Provenience. Buckets, collection bags, notes, and tags should be fully labeled per provenience, and a distinction should be made between samples collected from: (1) **Perimeter Balk** (described above), (2) **Exposure** (dirt removed in exposing the exterior/burial plan and associations, and (3) **Matrix** (dirt from the interstices between bones or associations). Thus, each burial may have three bags, "Burial 1 Perimeter Balk," "Burial 1 Exposure Balk," "Burial 1 Matrix."

Please note the provisions below with respect to handling and conveyance of records and samples.

(F) Records. The following records should be compiled in the field: (1) a detailed scale drawing of the burial, including the provenience of and full for all human remains, associated artifacts, and the configuration of all associated phenomena such as burial pits, evidence for preinterment grave pit burning, soil variability, and intrusive disturbance, (2) complete a formal burial record using the consultants proprietary form or other standard form providing information on site #, unit or other proveniences, level depth, depth and location of the burial from a fixed datum, workers, date(s), artifact list, skeletal inventory, and other pertinent observations, (3) crew chief and worker field notes that may supplement or supercede information contained in the burial recording form, and (4) photographs, including either or standard photography or high-quality (400-500 DPI or 10 MP recommended) digital imaging.

(G) Stipulations for Acquisition and Use of Imagery. Photographs and images may be used only for showing location or configuration of questionable formation or for the position of the skeleton. They are not to be duplicated for publication unless a written release is obtained from the Tribe.

(H) Association. Association between the remains and other cultural materials should be determined in the field in consultation with an authorized Tribal representative, and may be amended per laboratory findings. Records of provenience and sample labels should be adequate to determine association or degree of likelihood of association of human remains and other cultural materials.

(I) Samples. For each burial, all **Perimeter Balk** soil is to be 1/8"-screened. All **Exposure** soil is to be 1/8"-screened, and a minimum of one 5-gallon bucket of excavated but unscreened Exposure soil is to be collected, placed in a plastic garbage bag in the bucket. All **Matrix** soil is to be carefully excavated, screened as appropriate, and then collected in plastic bags placed in 5-gallon buckets.

(J) Human remains are not to be cleaned in the field.

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(K) Blessings. Prior to any physical action related to human remains, a designated tribal representative will conduct prayers and blessings over the remains. The archaeological consultant will be responsible for insuring that individuals and tools involved in the action are available for traditional blessings and prayers, as necessary.

IV. Lab Procedures

No laboratory studies are permitted without consultation with the tribe. Lab methods are determined on a project-specific basis in consultation with Yocha Dehe Wintun Nation representatives. The following procedures are recommended:

(A) Responsibility. The primary archaeological consultant will be responsible for insuring that all lab procedures follow stipulations made by the Tribe.

(B) Blessings. Prior to any laboratory activities related to the remains, a designated tribal representative will conduct prayers and blessings over the remains. The archaeological consultant will be responsible for insuring that individuals and tools involved in the action are available for traditional blessings and prayers, as necessary.

(C) Physical Proximity of Associations. To the extent possible, all remains, associations, samples, and original records are to be kept together throughout the laboratory process. In particular, **Matrix** dirt is to be kept in buckets and will accompany the remains to the lab. The primary archaeological consultant will be responsible for copying all field records and images, and insuring that the original notes and records accompany the remains throughout the process.

(*E) Additional Lab Finds*. Laboratory study should be done making every effort to identify unanticipated finds or materials missed in the field, such as objects encased in dirt or human remains misidentified as faunal remains in the field. In the event of discovery of additional remains, materials, and other associations the tribal representatives are to be contacted immediately.

V. Re-internment without Further Disturbance

No laboratory studies are permitted on human remains and funerary objects. The preferred treatment preference for exhumed Native American human remains is reburial in an area not subject to further disturbance. Any objects associated with remains will be reinterred with the remains.

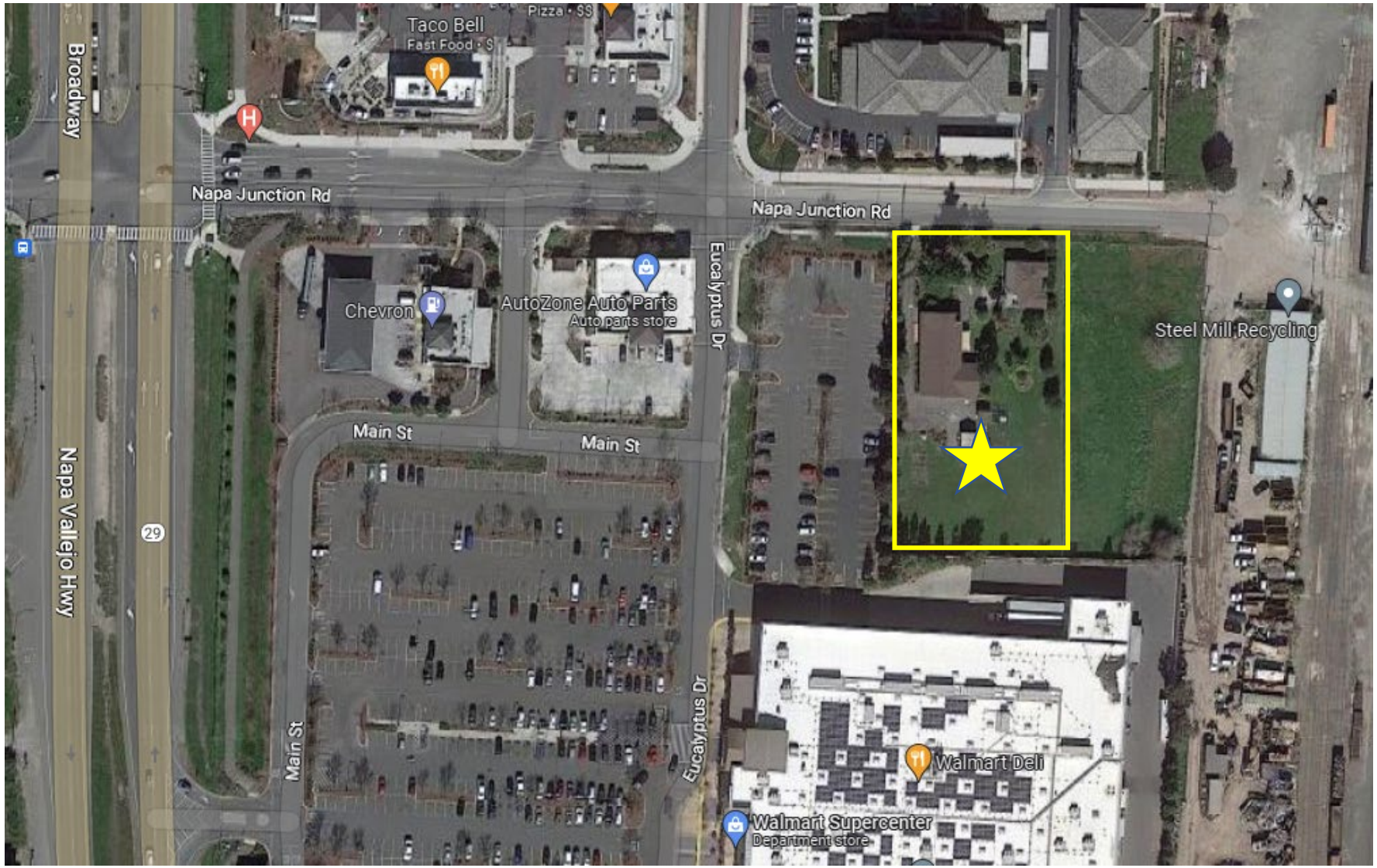
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YOCHA DEHE
CULTURAL RESOURCES

VI. Curation of Recovered Materials

Should all, or a sample, of any archaeological materials collected during the data recovery activities – with the exception of Human Remains – need to be curated, an inventory and location information of the curation facility shall be given to tribe for our records.

Sun Square Mixed Use Project – Location Map



Sun Square Mixed Use Project – Site Photos



Figure 1: Frontage along Napa Junction Rd facing east.



Figure 2: Frontage along Napa Junction Rd facing west.



Figure 3: Site facing southeast towards Walmart.



Figure 4: On site, looking southwest towards Walmart.



Figure 5: On site looking north along east property line.



Figure 6: On site looking north along west property line.

Attachment 5



SUN SQUARE

425 Napa Junction Rd, American Canyon

John Howland Architect

Architecture
Interiors
Planning

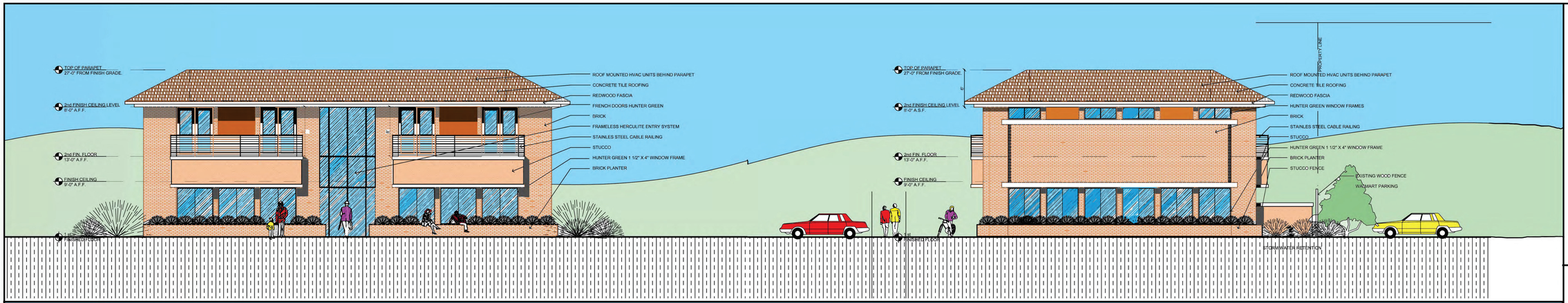


SUN SQUARE

425 Napa Junction Rd, American Canyon

John Howland Architect

Architecture
Interiors
Planning



3 EAST ELEVATION
Scale: 1/8" = 1'-0"

1 NORTH ELEVATION
Scale: 1/8" = 1'-0"

4 WEST ELEVATION
Scale: 1/8" = 1'-0"

2 SOUTH ELEVATION
Scale: 1/8" = 1'-0"

PLANNING SUBMITTAL

John Howland ARCHITECT, LEED AP
Architecture Planning
Interior Design
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Vallejo, CA 94590
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cell: 707-975-3491
john@johnhowlandarchitect.com web: www.johnhowlandarchitect.com

SUN SQUARE
425 NAPA JUNCTION RD
AMERICAN CANYON, CA

LICENSED ARCHITECT
JOHN CLAYTON HOWLAND
C 14886
REN. 4-30-23
STATE OF CALIFORNIA

DATE: 9/3/22

REV. NO.	REV. DATE
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JOB NO.: ABF02

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Attachment 4

January 21, 2023

John
Howland
Architect

Architecture
Interiors
Planning

William He, Senior Planner, Community Development Dept.
City of American Canyon
4381 Broadway St, #201
American Canyon, CA

Sun Square Design Narrative:

Modern industrial architecture **is a trend inspired by 20th Century factories and industrial buildings now available for repurposing into urban residential spaces**. The appealing style characteristics include stripped-back architecture, weathered surfaces, raw elements, exposed bricks, etc

Sun Square consists of four similar elegantly designed buildings with large vertical elements and a minimalist aesthetic. The industrial building's lack of architectural embellishment inspires modern spaces that have clean vertical and horizontal lines. The brick surface is provides a weathered appearance. The project incorporates large fenestration with industrial window systems and high ceilings, all elements typical in modern industrial buildings. The balcony railing utilizes steel angle iron and stainless steel cables all are within the modern industrial vocabulary.

Sincerely,

John Howland

John Howland, Architect
Enclosure:

524 Georgia Street #100-Vallejo, CA 94590-(707) 975-3691-john@johnhowlandarchitect.com-www.johnhowlandarchitect.com

Attachment 6

ENVIRONMENTAL CONSULTANTS

November 30, 2022

Max Konan
Sun Square Asset Management Inc.
3423 Broadway St. # 01,
American Canyon, CA 94503

Re: Cultural Resources Study and/or Viewshed Analysis Determination for 425 Napa Junction Road, American Canyon, Napa County, CA

Mr. Konan:

This letter provides a brief summary explaining why a cultural resources study and/or aesthetics (viewshed) analysis is not required for the proposed re-development project (Project) located at 425 Napa Junction Road (Project Area; APN 059-020-003) in the City of American Canyon, Napa County, California. This determination was based on a review of the City of American Canyon's Broadway District Specific Plan (BDSP) and associated Environmental Impact Report (EIR) which analyze the area in which the Project Area is located within the context of the California Environmental Quality Act (CEQA).

In summary, the BDSP EIR anticipated development of the Project Area, and the Project would not result in any new or more severe impacts beyond what was addressed in the BDSP EIR. Therefore, no additional analysis of aesthetics or cultural resources is required at this time.

Project Description:

The Project Area is approximately 1 acre in size, and exists between a private vacant lot to the east and a commercial (WalMart) parking lot to the west. The parcel is zoned for residential use and is currently developed, with two single-family residences and their associated amenities (e.g. paved driveways, landscaped front yard, and planted native and non-native/ornamental shrubbery and trees). The proposed project will be constructed in two phases and involves construction of four two-story buildings of equal size, each with five one-bedroom apartments, as well as respective office space on the ground floors. A total of 41 parking spaces will also be installed.

Summary of BDSP EIR Analysis

Aesthetic Resources

Section 3.1 (Aesthetics, Light, and Glare) of the BDSP EIR analyzes impacts to visual resources which includes viewsheds. According to the BDSP EIR, buildout of the BDSP would not have a substantial adverse effect on a scenic vista because the development would simply add to the existing development within the existing urban footprint and would not adversely affect views of any scenic vista. The BDSP helps guide development that would be designed in accordance with the Specific Plan's development standards and Design Guidelines. The Project would be consistent with the BDSP EIR and would not create new or more significant impacts to aesthetic resources beyond what were analyzed in the BDSP EIR. The conclusions

from the BDSP EIR remain unchanged when considering the Project. Since all impacts related to aesthetics were found to be "less than significant" and no mitigation measures were proposed, no additional aesthetics analysis is required.

Cultural Resources

Section 3.4 of the BDSP EIR analyzes impacts to cultural resources. According to the BDSP EIR, 12 historic structures (i.e., more than 45 years old) are located within the BDSP area and nine historic structures located within a 0.5-mile radius. These structures were evaluated for listing in the California Register of Historical Resources and National Register of Historic Places and were determined not to be eligible for listing. Therefore, these resources do not meet the definition of a "historical resource" for the purposes of CEQA. Although there are no listed historic resources within the BDSP area, it is possible that subsurface excavations may encounter previously undiscovered historic resources during development activities. The implementation of standard cultural resource construction mitigation found in the BDSP EIR would ensure that this impact is less than significant.

According to the BDSP EIR, no known prehistoric archaeological resources have been recorded within the BDSP area. However, it is possible that subsurface excavations may encounter previously undiscovered archaeological resources within the BDSP and the off-site development areas. The implementation of standard cultural resource construction mitigation found in the BDSP EIR would ensure that this impact is less than significant.

The BDSP area includes areas previously inhabited by Native American tribes and, thus, there is always the possibility that subsurface construction activities associated with buildout of the BDSP, such as trenching and grading, could potentially damage or destroy previously undiscovered human remains. However, if human remains are discovered, implementation of the mitigation measures presented in Section 3.4 of the BDSP EIR would reduce this potential impact to a less than significant level.

According to the BDSP EIR, the BDSP area is not listed on any national, State, or local registers of historic places (including those for tribal cultural resources). Additionally, no tribal cultural resources have been previously recorded within the BDSP boundaries. However, in the event of the inadvertent discovery of tribal cultural resources, mitigation measures found in Section 3.4 of the BDSP EIR would serve to reduce the impact to a level of less than significant.

<u>Conclusion</u>

The BDSP EIR anticipated development of the Project Area. The Project would not result in any new or more severe impacts beyond what were analyzed in the BDSP EIR. There is no new information identifying new potentially significant effects, nor is there an increase in the severity of previously identified impacts in the BDSP EIR related to aesthetics and cultural resources. All impacts related to aesthetics were found to be less than significant and no mitigation measures were proposed. Potential impacts related to cultural resources were reduced to a less than significant level with implementation of the mitigation measures presented in Section 3.4 of the BDSP EIR. The conclusions from the BDSP EIR remain unchanged when considering the Project. Therefore, no additional analysis is required at this time.

Please contact me with any questions.

Sincerely,



Jason Yakich
Senior Biologist
yakich@wra-ca.com

Ec: John Howland, John Howland Architect

Attachment 7

ENVIRONMENTAL CONSULTANTS

November 30, 2022

Max Konan
Sun Square Asset Management Inc.
3423 Broadway St. # 01,
American Canyon, CA 94503

Re: Biological Assessment Report for 425 Napa Junction Road, American Canyon, Napa County, CA

Mr. Konan:

This letter provides a due diligence analysis of potential biological resources constraints at 425 Napa Junction Road (Study Area; APN 059-020-003) in the City of American Canyon, Napa County, California (Figure 1, Attachment A). This biological assessment letter identifies potential biological constraints to the proposed re-development of the Study Area, and recommends measures for avoiding potential impacts to sensitive resources, if such are present. Since the Study Area is within the area covered by the City's Broadway District Specific Plan and associated Environmental Impact Report (EIR), this biological assessment was, therefore, conducted within the context of these documents, and their findings and standards were incorporated when relevant.

Respective figures showing the Study Area's location and land cover types are included as Attachment A. In summary, biological constraints observed within the Study Area were limited to potential impacts to nesting birds (e.g., during tree removal). Additionally, potential mature trees are present and the preservation of these trees should be considered in accordance with the relevant policy in the Broadway District Specific Plan.

Site Description

The Study Area is approximately 1 acre in size, and exists between a private vacant lot to the east and a commercial (WalMart) parking lot to the west (Figure 2, Attachment A). The parcel is zoned for residential use and is currently developed, with two single-family residences and their associated amenities (e.g. paved driveways, landscaped front yard, and planted native and non-native/ornamental shrubbery and trees). The proposed project will be constructed in two phases and involves construction of four two-story buildings of equal size, each with five one-bedroom apartments, as well as respective office space on the ground floors. A total of 41 parking spaces will also be installed.

Methods

WRA biologist Jean-Paul Ponte performed a field assessment of the Study Area on January 25, 2022. The assessment included in this report is based on the findings of the site visit, a review of existing online resources (USFWS 2022a, Jepson Flora Project 2022, NETR 2021, Google Earth 2022, CNPS 2022a), and WRA's experience working with natural habitats and development projects in both Napa County and the

greater San Francisco Bay Area. Database queries for special-status plant species included the Napa, Sonoma, Mt. George, Sears Point, Cuttings Wharf, Cordelia, Petaluma Point, Mare Island, and Benicia U.S. Geological Survey (USGS) 7.5-minute quadrangles as the focal search area (CDFW 2022, USFWS 2022b, CNPS 2022b, USGS 2015). The entirety of Napa County was considered for special-status wildlife database queries (CDFW 2022, USFWS 2022b).

The Study Area was examined for indicators of wetlands, streams, and areas with an Ordinary High Water Mark (OHWM) potentially under the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW). Any special-status species that were observed during the site visit were recorded. Areas that met characteristics to be considered habitat for special-status species of major concern were mapped in portions of the Study Area where this habitat was determined to represent a potential constraint.

The Study Area was assessed in terms of potential development-related constraints. The conclusions of this report are based on conditions observed at the time of the field assessments and regulatory policies and practices in place at the time the report was prepared.

Results

Land cover types within the Study Area are shown in Figure 2 (Attachment A). No sensitive landcover types were observed within the Study Area. As previously mentioned, the Study Area is predominantly developed, consisting of two single-family residences and their associated amenities. Specifically, areas that were mapped as "developed" are existing hardscaped features (e.g. buildings and driveways), and landscaped native and non-native/ornamental trees and shrubs that are scattered throughout the Study Area. The southern portion of the Study Area is an undeveloped lawn, consisting of non-native ornamental and ruderal grasses and forbs. The undeveloped lawn was mapped as a "non-native grassland." Potential biological constraints that may be present in the Study Area or directly adjacent to it are reviewed in the following sections.

Sensitive Land Cover Types

Potential Wetlands and Waters of the U.S.

No potentially jurisdictional wetland or non-wetland waters features were observed within the Study Area.

Protected Trees

The City of American Canyon's General Plan does not contain ordinances/policies regarding tree protection and/or removal. However, Policy 3-3 within the Broadway District Specific Plan specifies that existing mature trees should be incorporated into the landscape plan of new developments to the greatest extent possible. Several trees within the Study Area (e.g. Deodar cedar [*Cedrus deodara*], Monterey pine [*Pinus muricata*], and incense cedar (*Calocedrus decurrens*) may qualify as mature trees, and therefore these trees should be considered when incorporating the landscape plan for the Project.

Special-status Species

Special-status Plant Species

A total of 64 special-status plant species have been documented within the vicinity of the Study Area (CDFW 2022, CNPS 2022). All of these special-status plants are unlikely or have no potential to occur within the Study Area for one or more of the following reasons:

- The Study Area was recently predominantly developed, and altered from a natural state, occupied by hardscape, thereby eliminating the seedbank or diminishing establishment of the special-status plant(s);
- The Study Area does not contain hydrologic conditions (e.g., perennial saline, freshwater marshes and swamps) necessary to support the special-status plant(s).
- The Study Area does not contain edaphic (soil) conditions (e.g., serpentine or volcanic substrate) necessary to support the special-status plant(s).
- The Study Area does not contain vegetation communities (e.g., chaparral, coastal scrub, vernal pools) associated with the special-status plant(s).
- The surrounding environments are completely developed and urbanized, thereby diminishing potential re-establishment of the special-status plant(s).
- What little non-paved areas exist within the Study Area are managed by repeated mowing or discing, and are dominated by non-native invasive species.

Due to the circumstances listed above, special-status plant species (including species listed as threatened or endangered species) are not a constraint for the Study Area.

Special-status Wildlife Species

A total of 51 special-status wildlife species have been documented in Napa County (CDFW 2021, Napa County 2005). All of these special-status species are unlikely or have no potential to occur within the Study Area for one or more of the following reasons:

- The setting of the Study Area is urban, and the Study Area itself was previously developed and highly disturbed, having been graded, landscaped, paved, and/or otherwise modified, making it unsuitable for the many of the special status species in the vicinity.
- Specific aquatic habitats (e.g., marshes, estuarine waters, vernal pools) necessary to support the special-status wildlife species are not present in the Study Area.
- Vegetative habitats (e.g., coast redwood forest, coastal prairie, dense emergent marsh) that provide nesting and/or foraging resources necessary support the special-status wildlife species are not present in the Study Area.
- Physical structures and vegetation (e.g., mines, old-growth coniferous trees, large tree cavities/hollows) necessary to provide nesting, cover, and/or foraging habitat to support the special-status wildlife species are not present in the Study Area

Due to the circumstances listed above, special-status wildlife species (including species listed as threatened or endangered species) are not a constraint for the Study Area.

Nesting Birds

Most native birds have baseline protections under the federal Migratory Bird Treaty Act of 1918 (MBTA) as well as the California Fish and Game Code (CFGC). Under these laws/codes, the intentional killing, collecting or trapping of covered species, including their active nests (those with eggs or young), is prohibited. Within the Study Area, native birds may nest in trees and shrubbery.

Summary and Recommendations

Wetlands and Waters of the U.S., Riparian Habitat

The Study Area does not contain any potentially jurisdictional wetland or non-wetland waters features. Therefore, a formal delineation of jurisdictional wetlands and non-wetland waters is not recommended.

Special-status Plants

Sixty-four special-status plant species have been documented within the vicinity of the Study Area. All special-status plant species documented in the vicinity are unlikely or have no potential to occur within the Study Area, due to lack of suitable habitat, previous and repeated site disturbance, and the prevalence or dominance of non-native invasive species. No further surveys are recommended for special-status plant species.

Special-status Wildlife

Fifty-one special-status wildlife species have been documented within the vicinity of the Study Area. All special-status wildlife species documented in the vicinity are unlikely or have no potential to occur within the Study Area, due to lack of suitable habitat and/or previous and repeated site disturbance. No further surveys are recommended for special-status wildlife species.

Nesting Birds

Baseline protections for most native birds under federal law and state codes include active nests (those with eggs or young). Avoidance of nesting birds is considered a general biological resources "best practice" in the San Francisco Bay region, and avoids any potential enforcement action (typically by CDFW). Nesting bird pre-construction survey obligations are a common component of various permits and authorizations, including CEQA documents and even local grading or demolition permits, and such may be deemed applicable to project activities within the Study Area.

WRA recommends that any tree removal/trimming and/or other vegetation removal required to accommodate project activities be conducted from August 16 to January 31, outside of the general nesting bird season. If such work must occur during the general nesting season, it is recommended that a nesting bird survey be conducted by a qualified wildlife biologist no more than 14 days prior to the start of these activities. If active nests are identified, a no-disturbance buffer should be implemented around each nest to avoid impacts to nesting birds. Buffers typically range from 25 feet to up to 500 feet, depending on the species in question and setting of the nest, and should remain in place until all young are fledged or the nest otherwise becomes inactive.

Tree Removal

Policy 3-3 within the Broadway District Specific Plan specifies that existing mature trees should be incorporated into the landscape plan of new developments to the greatest extent possible. Several (non-native) trees within the Study Area may qualify as mature trees, and as such WRA recommends considering the preservation of such trees in the context of the landscape plan for the Project. However, necessary removal of the trees to accommodate the proposed development would presumably be authorized by the City.

Please contact me with any questions or comments.

Sincerely,



Jason Yakich
Senior Biologist
yakich@wra-ca.com

Enclosures: Attachment A – Figures

Ec: John Howland, John Howland Architect

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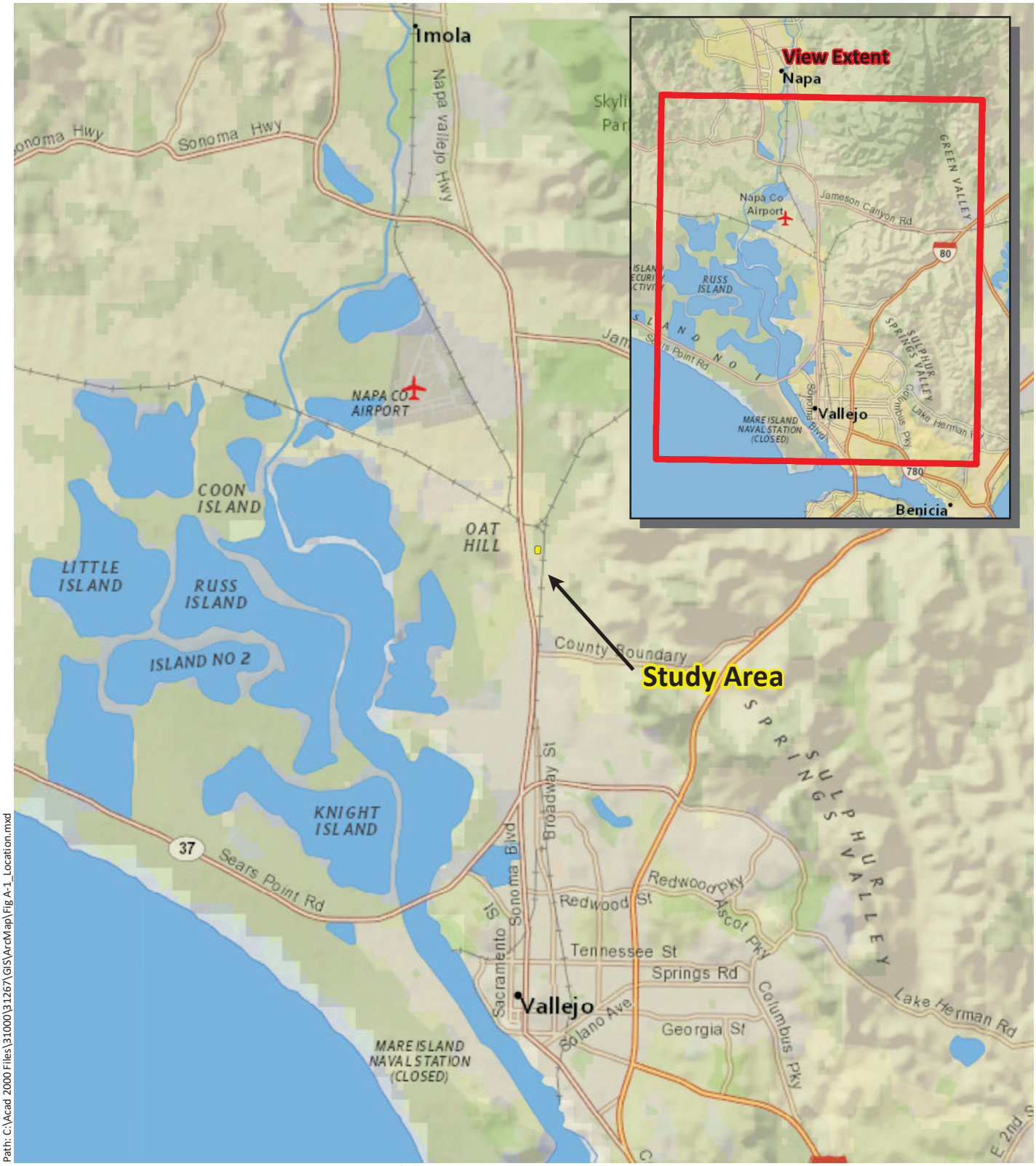
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Path: C:\Acad 2000 Files\31000\31267\GIS\ArcMap\Fig A-1_Location.mxd

Sources: National Geographic, WRA | Prepared By: aarthur, 8/9/2021

Figure 1. Study Area Location

425 Napa Junction Road
Napa County, CA

0 0.75 1.5 Miles

N

wra ENVIRONMENTAL CONSULTANTS



Sources: DigitalGlobe 2016 Aerial, WRA | Prepared By: aarthur, 1/28/2022

Figure 2. Land Cover

425 Napa Junction Road
Napa County, CA

0 50 100 Feet

N

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RGH CONSULTANTS

Experience is the difference

GEOTECHNICAL STUDY REPORT

SUNSQUARE MIXED USE
425 NAPA JUNCTION ROAD
AMERICAN CANYON, CALIFORNIA

Project Number:

7530.01.04.2

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INFORMATION ABOUT YOUR GEOTECHNICAL REPORT

INTRODUCTION

This report presents the results of our geotechnical study for the mixed-use development to be constructed at 425 Napa Junction Road in American Canyon, California. The property extends over relatively level terrain and currently contains two residences and their associated outbuildings. The site location is shown on Plate 1, Appendix A.

We understand that it is proposed to construct a 3-story, approximately 25,000 square foot structure that will include office and retail space on the ground floor, and residential space on the upper two floors. We anticipate that the structure will have concrete slab-on-grade floors supported on spread footings or a mat slab foundation.

Actual foundation loads are not known at this time. We anticipate the loads will be typical for the moderately heavy type of construction planned. Grading plans are not available, but we anticipate that, the planned grading will be the minimum amount needed to construct a level building pad and provide the building site and paved areas with positive drainage, and could include cuts and fills on the order of 1 to 3 feet.

Utility plans are not available, but we have assumed for this study that the project utilities will extend no deeper than 15 feet below the existing ground surface. If project utilities extend deeper, supplemental exploration may be required to evaluate the soil conditions within and below the utility excavations.

SCOPE

The purpose of our study, as outlined in our Professional Service Agreement dated August 31, 2021, was to generate geotechnical information for the design and construction of the project. Our scope of services included reviewing selected published geologic data pertinent to the site; evaluating the subsurface conditions with borings and laboratory tests; analyzing the field and laboratory data; and presenting this report with the following geotechnical information:

1. A brief description of the soil and groundwater conditions observed during our study;

2. A discussion of seismic hazards that may affect the proposed improvements; and

3. Conclusions and recommendations regarding:

    a. Primary geotechnical engineering concerns and mitigating measures, as applicable;

    b. Site preparation and grading including remedial grading of weak, porous, compressible and/or expansive surface soil;

    c. Foundation type(s), design criteria, and estimated settlement behavior;

    d. Lateral loads for retaining wall design;

    e. Support of concrete slabs-on-grade;

    f. Preliminary pavement thickness based on our experience with similar soil and projects and the results of the R-value test on the anticipated subgrade soil;

    g. Utility trench backfill;

    h. Geotechnical engineering drainage improvements; and

    i. Supplemental geotechnical engineering services.

STUDY

Site Exploration

We reviewed our previous geotechnical studies in the vicinity and selected geologic references pertinent to the site. The geologic literature reviewed is listed in Appendix B. On September 20, 2021, we performed a geotechnical reconnaissance of the site and explored the subsurface conditions by drilling 4 borings to depths ranging from about 15 to 20½ feet. The borings were drilled with a 4-inch diameter, solid stem auger at the approximate locations shown on the Exploration Plan, Plate 2. The boring locations were determined approximately by pacing their distance from features shown on the Exploration Plan and should be considered accurate only to the degree implied by the method used. Our field engineer located and logged the borings and obtained samples of the materials encountered for visual examination, classification and laboratory testing.

Relatively undisturbed samples were obtained from the borings at selected intervals by driving a 2.43-inch inside diameter, split spoon sampler, containing 6-inch long brass liners, using a 140-pound hammer dropping approximately 30 inches. The sampler was driven 12 to 18 inches. The blows required to drive each 6-inch increment were recorded and the blows required to drive the last 12 inches, or portion thereof, were converted to equivalent Standard Penetration Test (SPT) blow counts for correlation with empirical data. Disturbed samples were also obtained at selected depths by driving a 1.375-inch inside diameter (2-inch outside diameter) SPT sampler, without liners or rings, using a 140-pound hammer dropping approximately 30 inches. The sampler was driven 12 to 18 inches, the blows to drive each 6-inch increment were recorded, and the blows required to drive the final 12 inches, or portion thereof, are provided on the boring logs. Disturbed 'bulk' samples were also obtained at selected depths from the borings and placed in plastic bags and buckets.

The logs of the borings showing the materials encountered, groundwater conditions, converted blow counts, and sample depths are presented on Plates 3 through 6. The soil is described in accordance with the Unified Soil Classification System, outlined on Plate 7.

The boring logs show our interpretation of the subsurface soil and groundwater conditions on the date and at the locations indicated. Subsurface conditions may vary at other locations and times. Our interpretation is based on visual inspection of soil samples, laboratory test results, and interpretation of drilling and sampling resistance. The location of the soil boundaries should be considered approximate. The transition between soil types may be gradual.

Laboratory Testing

The samples obtained from the borings were transported to our office and re-examined to verify soil classifications, evaluate characteristics, and assign tests pertinent to our analysis. Selected samples were laboratory tested to determine their classification (Atterberg Limits, percent of silt and clay), expansion potential (Expansion Index - EI) and R-value. The test results are referenced on the boring logs. Results of the classification and R-value tests are presented on Plates 8 and 9, respectively.

SITE CONDITIONS

General

Napa County is located within the California Coast Range geomorphic province. This province is a geologically complex and seismically active region characterized by sub-parallel northwest-trending faults, mountain ranges and valleys. The oldest bedrock units are the Jurassic-Cretaceous Franciscan Complex and Great Valley sequence sediments originally deposited in a marine environment. Subsequently, younger rocks such as the Tertiary-age Sonoma Volcanics group, the Plio-Pleistocene-age Clear Lake Volcanics and sedimentary rocks such as the Guinda, Domengine, Petaluma, Wilson Grove, Cache, Huichica and Glen Ellen formations were deposited throughout the province. Extensive folding and thrust faulting during late Cretaceous through early Tertiary geologic time created complex geologic conditions that underlie the highly varied topography of today. In valleys, the bedrock is covered by thick alluvial soil.

Geology

Published geologic maps (Bezore et al., 2002) indicate the property is underlain by late Pleistocene to Holocene fan deposits. These deposits typically consist of gently sloping, fan-shaped, relatively undissected alluvial surfaces. They consist of sand, gravel, silt, and clay that are moderately to poorly sorted and moderately to poorly bedded.

Surface

The property extends primarily over relatively flat terrain. The vegetation consists of mowed grasses toward the rear of the property, and landscaped trees, shrubs, and grasses near the residences. Asphalt concrete provides vehicle access to the garages. In general, the ground surface is moderately hard. However, soil in the area that appears hard and strong when dry will typically lose strength rapidly and settle under the loads of fills, foundations and slabs as its moisture content increases and approaches saturation. This typically occurs because the surface soil is weak, porous and compressible. The surface soil is disturbed by randomly arrayed shrinkage cracks generally associated with expansive soil. Locally, expansive soil shrinks and swells with the weather cycle. The cyclic shrinking and swelling tends to disturb the upper portion of the expansive clay. This zone is defined hereinafter as the active layer. Natural drainage consists of sheet flow over the ground surface that concentrates in man made surface drainage elements such as roadside ditches, canals and gutters.

Subsurface

Our borings and laboratory tests indicate that the portion of the site we studied is blanketed by 2 to 3½ feet of weak, porous, compressible, clayey soil. Porous soil appears hard and strong when dry but becomes weak and compressible as its moisture content increases towards saturation. This soil exhibits high plasticity (LL = 63.3; PI = 44.1) and medium expansion potential (EI = 80), and is disturbed by 1 to 2 inch wide shrinkage cracks that extend ½ to 1 foot below the ground surface. These surface materials are underlain by layers of clay, sand, and gravel.

A detailed description of the subsurface conditions found in our borings is given on Plates 3 through 6, Appendix A. Based on Table 20.3-1 of American Society of Civil Engineers (ASCE) Standard 7-16, titled "Minimum Design Loads and Associated Criteria for Buildings and Other Structures" (2017), we have determined a Site Class of D should be used for the site.

Corrosion Potential

Mapping by the Natural Resources Conservation Service (2021) indicates that the corrosion potential of the near surface soil is high for uncoated steel and moderate for concrete. Performing corrosivity tests to verify these values was not part of our requested and/or proposed scope of work. Should the need arise, we would be pleased to provide a proposal to evaluate these characteristics.

Groundwater

Free groundwater was first detected in boring B-4 at a depth of about 18½ feet below the ground surface at the time of drilling, but was not detected in the other borings. When boring B-1 was backfilled 3 hours after drilling, the water level had risen to a depth of about 16½ feet below the ground surface. Fluctuation in the groundwater level typically occurs because of a variation in rainfall intensity, duration and other factors such as flooding and periodic irrigation.

Flooding

Our review of the Federal Emergency Management Agency (FEMA) Flood Zone Map for the City of American Canyon, California, No. 06055C0617F, dated August 3, 2016, indicates that the proposed building site is located within Zone "X," an area determined to be outside the 500-year flood plain. Evaluation of flooding potential is typically the responsibility of the project civil engineer.

DISCUSSION AND CONCLUSIONS

Seismic Hazards

Faulting and Seismicity

We did not observe landforms within the area that would indicate the presence of active faults and the site is not within a current Alquist-Priolo Earthquake Fault Zone (Bryant and Hart, 2007). Therefore, we believe the risk of fault rupture at the site is low. However, the site is within an area affected by strong seismic activity and future seismic shaking should be anticipated at the site. It will be necessary to design and construct the proposed improvements in strict adherence with current standards for earthquake-resistant construction.

Liquefaction

Liquefaction is a rapid loss of shear strength experienced in saturated, predominantly granular soil below the groundwater level during strong earthquake ground shaking due to an increase in pore water pressure. The occurrence of this phenomenon is dependent on many complex factors including the intensity and duration of ground shaking, particle size distribution and density of the soil.

Granular soil was encountered at the site below the groundwater table. Therefore, we performed an analysis of the blow count data from our borings using the methods of Seed and Idriss (1982), Seed and others (1985), Youd and Idriss (2001), Idriss and Boulanger (2004) and Idriss and Boulanger (2008). These procedures normalize the blow counts to account for overburden pressure, rod length, hammer energy, and fines (percent of silt and clay) content. Once the blow counts are normalized and adjusted to a clean sand blow count, the cyclic resistance ratio (CRR) for each blow count is then determined using the same procedures referenced above. The CRR is compared to the cyclic stress ratio (CSR) induced by the earthquake. Calculating the CSR requires a peak ground acceleration and design earthquake magnitude.

Peak ground acceleration (PGA) was determined using the methods in the 2019 California Building Code (CBC) and the American Society of Civil Engineers (ASCE) Standard 7-16, titled “Minimum Design Loads and Associated Criteria for Buildings and Other Structures” (2017). Using the site-specific seismic criteria developed in accordance with Chapter 21 of ASCE 7-16, the site’s latitude and longitude of 38.1841°N and 122.2526°W, respectively, and a site soil Class of D, the PGA for the site is 0.796g. Using this information, the CSR for a M_M 7.5 earthquake at the site ranges from 0.48 to 0.52. The West Napa fault is most likely controlling the ground motions at the site. According to the Building Seismic Safety Council Earthquake Scenario Event Set (BSSC, 2014) and the USGS Earthquake Scenario Map (available at http://usgs.maps.arcgis.com/apps/webappviewer/index.html), the West Napa fault is capable of a M_M 6.97 earthquake. Therefore, the CRR values at the site must be scaled to account for the difference between M_M 6.97 and M_M 7.5. When the scaling factor for magnitude and confining stress corrections presented in Idriss and Boulanger (2004) are applied, the CRR values at the site do not exceed the CSR values. Therefore, we judge that there is potential for liquefaction at the site.

There are three potential consequences of liquefaction: bearing capacity failure, lateral spreading toward a free face (e.g. riverbank) and settlement. Bearing capacity failure is sudden and extreme settlement of foundations that typically occurs when the liquefied layer is relatively close (typically within two times the footing width, depending on the loads) to the bottom of the foundation. Because the liquefiable layer is

discontinuous and at least 11 feet below the ground surface, we judge that the potential for bearing capacity failure is low.

Lateral spreading can occur where continuous layers of liquefiable soil extend to a free face, such as a creek bank. There are no significant free faces in the vicinity of the site. Therefore, we judge the potential for liquefaction-induced lateral spreading at the site is low.

The third potential consequence of liquefaction is settlement due to densification of the liquefied soil. Potential settlements based on the blow count data and cyclic stress ratio were calculated using the methods of Ishihara and Yoshimine (1992). For the layers encountered at around 18 and 11 feet below the surface in borings B-3 and B-4, respectively, we calculated total and differential settlement ranging from 0 to ¼ inches.

Geotechnical Issues

General

Based on our study, we judge the proposed improvements can be built as planned, provided the recommendations presented in this report are incorporated into their design and construction. The primary geotechnical concerns during design and construction of the project are:

1. The presence of 2 to 3½ feet of expansive, weak, porous, compressible, clayey surface soil;

2. The presence of soils susceptible to liquefaction;

3. The detrimental effects of uncontrolled surface runoff and groundwater seepage on the long-term satisfactory performance of the project; and

4. The strong ground shaking predicted to impact the site during the life of the project.

Potentially Liquefiable Soil

As discussed previously, there are layers of the subsurface soil that are susceptible to liquefaction. Potentially liquefiable soils present at the site are susceptible to settlement due to the densification of the liquefied soils. Our analysis found that the total settlements could range from 0 to ¼ inches.

Weak, Porous Surface Soil

Weak, porous surface soil, such as that found at the site, appears hard and strong when dry but will lose strength rapidly and settle under the load of fills, foundations, slabs, and pavements as its moisture content increases and approaches saturation. The moisture content of this soil can increase as the result of rainfall, periodic irrigation or when the natural upward migration of water vapor through the soil is impeded by, and condenses under fills, foundations, slabs, and pavements. The detrimental effects of such movements can be reduced by strengthening the soil during grading. This can be achieved by excavating the weak soil and replacing it as properly compacted (engineered) fill. Alternatively, satisfactory foundation support could be obtained below the weak surface soil.

Expansive Soil

In addition, the surface soil is expansive. Expansive surface soil shrinks and swells as it loses and gains moisture throughout the yearly weather cycle. Near the surface, the resulting movements can heave and crack lightly loaded shallow foundations (spread footings) and slabs and pavements. The zone of significant moisture variation (active layer) is dependent on the expansion potential of the soil and the extent of the dry season. In the project area, the active layer is generally considered to range in thickness from about 2 to 3 feet. The detrimental effects of the above-described movements can be reduced by pre-swelling the expansive soil and covering it with a moisture fixing and confining blanket of properly compacted select fill, as subsequently defined. In building areas, the blanket thickness required depends on the expansion potential of the soil and the anticipated performance of the foundations and slabs. In order to effectively reduce foundation and slab heave given the expansion potential of the site's soil, a blanket thickness of 30 inches will be needed where spread footings at minimum depth and slab-on-grade interior floors are used. The 30 inch select fill blanket is not needed if a mat slab foundation is used. In exterior slab and paved areas, the select fill blanket need only be 12 inches thick.

Foundation and Slab Support - Provided grading is performed as discussed above, satisfactory foundation support can be obtained from spread footings that bottom on the select engineered fill at least 12 inches below pad subgrade. Interior slabs-on-grade can be supported on a minimum of 30 inches of select fill, as recommended herein. Alternatively, in lieu of installing the 30 inch select fill blanket in building areas mat slab foundations can be used.

Exterior Slabs and Pavements

Exterior slabs and pavements will heave and crack as the expansive soil shrinks and swells through the yearly weather cycle. Slab and pavement cracking and distress are typically concentrated along edges where moisture content variation is more prevalent within subgrade soil. Slab and pavement performance can be improved and the incidence of repair can be reduced, but not eliminated, by covering the pre-swelled expansive soil with at least 12 inches of select fill (see "On-Site Soil Quality" section) prior to constructing the slab or pavement required to carry the anticipated traffic.

On-Site Soil Quality

All fill materials used in the upper 30 inches of the building area and the upper 12 inches of exterior slab and pavement subgrade must be select, as subsequently described in "Recommendations." We anticipate that, with the exception of organic matter and of rocks or lumps larger than 6 inches in diameter, the excavated material will be suitable for re-use as general fill, but will not be suitable for use as select fill unless stabilized with lime. Where mat slab foundations are used, the select fill blanket can be omitted.

Select Fill

The select fill can consist of approved on-site soil or import materials with a low expansion potential or lime stabilized on-site clayey soil. Lime stabilized soil may prevent the growth of landscape vegetation due to the inherent elevated pH level of the soil. The geotechnical engineer must approve the use of on-site soil as select fill during grading.

Settlement

If remedial grading is performed and the spread footings are installed in accordance with the recommendations presented in this report, we estimate that post-construction differential settlements across the building will be about ½ inch. Earthquake-induced differential settlements could be as high as ¼ inch.

Surface Drainage

Because of topography and location, the site will be impacted by surface runoff. Surface runoff typically sheet flows over the ground surface but can be concentrated by the planned site grading, landscaping, and drainage. The surface runoff can pond against structures and cause deeper than normal soil heave and/or seep into the slab rock. Therefore, strict control of surface runoff is necessary to provide long-term satisfactory performance of the project. It will be necessary to divert surface runoff around improvements and provide positive drainage away from structures. This can be achieved by constructing the building pad several inches above the surrounding area and conveying the runoff into man made drainage elements or natural swales that lead downgradient of the site.

RECOMMENDATIONS

Seismic Design

Seismic design parameters presented below are based on Section 1613 titled "Earthquake Loads" of the 2019 California Building Code (CBC). Based on Table 20.3-1 of American Society of Civil Engineers (ASCE) Standard 7-16, titled "Minimum Design Loads and Associated Criteria for Buildings and Other Structures" (2017), we have determined a Site Class of D should be used for the site. Using a site latitude and longitude of 38.1841°N and 122.2526°W, respectively, and the procedures outlined in Chapter 21 of ASCE Standard 7-16, we recommend that the following site-specific seismic design criteria be used for applicable structures at the site.

2019 CBC Seismic Criteria	
Spectral Response Parameter	**Acceleration (g)**
S_S (0.2 second period)	2.182
S_1 (1 second period)	0.787
S_{MS} (0.2 second period)	1.807
S_{M1} (1 second period)	1.574
S_{DS} (0.2 second period)	1.205
S_{D1} (1 second period)	1.049

Grading

Site Preparation

Areas to be developed should be cleared of vegetation and debris, including that left by the removal of obsolete structures. Trees and shrubs that will not be part of the proposed development should be removed and their primary root systems grubbed. Cleared and grubbed material should be removed from the site and disposed of in accordance with County Health Department guidelines. We did not observe septic tanks, leach lines or underground fuel tanks during our study. Any such appurtenances found during grading should be capped and sealed and/or excavated and removed from the site, respectively, in accordance with established guidelines and requirements of the County Health Department. Voids created during clearing should be backfilled with engineered fill as recommended herein.

Stripping

Areas to be graded should be stripped of the upper few inches of soil containing organic matter. Soil containing more than two percent by weight of organic matter should be considered organic. Actual stripping depth should be determined by a representative of the geotechnical engineer in the field at the time of stripping. The strippings should be removed from the site, or if suitable, stockpiled for re-use as topsoil in landscaping.

Excavations

Following initial site preparation, excavation should be performed as recommended herein. Excavations extending below the proposed finished grade should be backfilled with suitable materials compacted to the requirements given below.

Within building areas, where spread footings bottomed at minimum depth are chosen for foundation support, and within fill and interior slab-on-grade areas, the weak, porous, compressible, expansive surface soil should be excavated to within 6 inches of its entire depth (about 3 feet in our borings). Additional excavation should be performed, as necessary, to allow space for the installation of a blanket of select fill, at least 30 inches thick, beneath the building pad subgrade unless mat slab foundations are used. The excavation of weak, compressible, expansive soil should also extend at least 12 inches below exterior slab and pavement subgrade to allow space for the installation of the select fill blanket discussed in the conclusions section of this report. The excavation of weak, porous, compressible, expansive surface materials should extend at least 5 feet beyond the outside edge of the exterior footings of the proposed buildings and 3 feet beyond the edge of exterior slabs and pavements. The excavated materials should be stockpiled for later use as compacted fill, or removed from the site, as applicable.

At all times, temporary construction excavations should conform to the regulations of the State of California, Department of Industrial Relations, Division of Industrial Safety or other stricter governing regulations. The stability of temporary cut slopes, such as those constructed during the installation of underground utilities, should be the responsibility of the contractor. Depending on the time of year when grading is performed, and the surface conditions exposed, temporary cut slopes may need to be excavated to 1½:1, or flatter. The tops of the temporary cut slopes should be rounded back to 2:1 in weak soil zones.

Fill Quality

All fill materials should be free of perishable matter and rocks or lumps over 6 inches in diameter, meet the criteria set forth herein for select fill, and must be approved by the geotechnical engineer prior to use. The upper 30 inches of fill beneath and within 5 feet of the building area and the upper 12 inches of fill beneath and within 3 feet of exterior slabs and/or pavement edges should be select fill. Where mat slab foundation are used the select fill blanket can be omitted. We judge the on-site soil is generally suitable for use as general fill, but will not be suitable for use as select fill unless they are stabilized with lime. Lime stabilized soil may prevent the growth of landscape vegetation due to the inherent elevated pH level of the soil. The suitability of the on-site soil for use as select fill should be verified during grading.

Select Fill

Select fill should be free of organic matter, have a low expansion potential, and conform in general to the following requirements:

SIEVE SIZE	PERCENT PASSING (by dry weight)
6 inch	100
4 inch	90 – 100
No. 200	10 – 60

Liquid Limit – 40 Percent Maximum
Plasticity Index – 15 Percent Maximum
R-value – 20 Minimum (pavement areas only)

Expansive on-site soil may be used as select fill if it is stabilized with lime. In general, imported fill, if needed, should be select. Material not conforming to these requirements may be suitable for use as import fill; however, it shall be the contractor's responsibility to demonstrate that the proposed material will perform in an equivalent manner. The geotechnical engineer should approve imported materials prior to use as compacted fill. The grading contractor is responsible for submitting, at least 72 hours (3 days) in advance of its intended use, samples of the proposed import materials for laboratory testing and approval by the soils engineer.

Lime Stabilization

For preliminary planning purposes, we estimate that high calcium lime mixed at a minimum of 5½ percent (dry weight) will stabilize the expansive site soil. This percentage of lime needs to be verified prior to construction with engineering analysis and laboratory Atterberg Limits and/or pH testing using lime from the same source as that planned for use on the project and a sample of the soil to be treated. Laboratory test results and engineering analysis may indicate that a higher percentage of lime is required. The contractor should allow a minimum of 5 business days for the laboratory tests to be completed.

The lime stabilization should be performed in accordance with Section 24 of the Caltrans Standard Specifications except that a curing seal will not be required, provided the moisture content of the lime-stabilized material is maintained at or above optimum moisture content until it is permanently covered with subsequent construction. Lime stabilized materials are generally not suitable for reuse as general fill, select fill or backfill after compaction has taken place.

Fill Placement

The surface exposed by stripping and removal of weak, compressible, expansive surface soil should be scarified to a depth of at least 6 inches, uniformly moisture-conditioned to at least 4 percent above optimum and compacted to at least 90 percent of the maximum dry density of the materials as determined by ASTM Test Method D-1557. In expansive soil areas, moisture conditioning should be sufficient to completely close all shrinkage cracks for their full depth within pavement, exterior slab and building areas. If grading is performed during the dry season, the shrinkage cracks may extend to a few

feet below the surface. Therefore, it may be necessary to excavate a portion of the cracked soil to obtain the proper moisture condition and degree of compaction. Approved fill material should then be spread in thin lifts, uniformly moisture-conditioned to at least 4 percent above optimum and properly compacted. All structural fills, including those placed to establish site surface drainage, should be compacted to at least 90 percent relative compaction. Expansive soil used as fill should be moisture-conditioned to at least 4 percent above optimum. Only approved select materials should be used for fill within the upper 30 inches of interior slab subgrades and within the upper 12 inches of exterior slabs and/or pavement subgrades. The select fill blanket can be omitted if mat slab foundations are used.

SUMMARY OF COMPACTION RECOMMENDATIONS

Area	Compaction Recommendation (ASTM D-1557)
Preparation for areas to receive fill	After preparation in accordance with this report, compact upper 6 inches to a minimum of 90 percent relative compaction.
General fill (native or import)	Compact to a minimum of 90 percent relative compaction.
Structural fill beneath buildings, extending outward to 5' beyond building perimeter	Compact to a minimum of 90 percent relative compaction.
Trenches	Compact to a minimum of 90 percent relative compaction. Compact the top 6 inches below vehicle pavement subgrade to a minimum of 95 percent relative compaction.
Retaining wall backfill	Compact to a minimum of 90 percent relative compaction, but not more than 95 percent.
Pavements, extending outward to 3' beyond edge of pavement	Compact upper 6 inches of subgrade to a minimum of 95 percent relative compaction.
Concrete flatwork and exterior slabs, extending outward to 3' beyond edge of slab	Compact subgrade to a minimum of 90 percent relative compaction. Where subject to vehicle traffic, compact upper 6 inches of subgrade to at least 95 percent relative compaction.

SUMMARY OF COMPACTION RECOMMENDATIONS	
Area	Compaction Recommendation (ASTM D-1557)
Aggregate Base	Compact aggregate base to at least 95 percent relative compaction.

Wet Weather Grading

Generally, grading is performed more economically during the summer months when the on-site soil is usually dry of optimum moisture content. Delays should be anticipated in site grading performed during the rainy season or early spring due to excessive moisture in on-site soil. Special and relatively expensive construction procedures, including dewatering of excavations and importing granular soil, should be anticipated if grading must be completed during the winter and early spring or if localized areas of soft saturated soil are found during grading in the summer and fall.

Open excavations also tend to be more unstable during wet weather as groundwater seeps towards the exposed cut slope. Severe sloughing and occasional slope failures should be anticipated. The occurrence of these events will require extensive clean up and the installation of slope protection measures, thus delaying projects. The general contractor is responsible for the performance, maintenance and repair of temporary cut slopes.

Foundation Support

Provided the blanket of select fill is placed as recommended herein, the structure can be supported on continuous and isolated spread footings that bottom on select engineered fill. Alternatively, in lieu of installing the 30 inch select fill blanket in building areas, mat slab foundations can be used. Recommendations for these foundation options are provided in the following sections of the report.

Spread Footings

Spread footings should be at least 12 inches wide and should bottom on select engineered fill at least 12 inches below pad subgrade. Additional embedment or width may be needed to satisfy code and/or structural requirements. The bottoms of all footing excavations should be thoroughly cleaned out or wetted and compacted using hand-operated tamping equipment prior to placing steel and concrete. This will remove the soil disturbed during footing excavations, or restore their adequate bearing capacity, and reduce post-construction settlements. Footing excavations should not be allowed to dry before placing concrete. If shrinkage cracks appear in soil exposed in the footing excavations, the soil should be thoroughly moistened to close all cracks prior to concrete placement. The moisture condition of the foundation excavations should be checked by the geotechnical engineer no more than 24 hours prior to placing concrete.

Bearing Pressures - Footings installed in accordance with these recommendations may be designed using allowable bearing pressures of 2,000, 3,000, and 4,000 pounds per square foot (psf), for dead loads, dead plus code live loads, and total loads (including wind and seismic), respectively.

Lateral Pressures - The portion of spread footing foundations extending into select engineered fill may impose a passive equivalent fluid pressure and a friction factor of 350 pcf and 0.35, respectively, to resist sliding. Passive pressure on ungraded weak surface soil should be reduced to 150 pcf. Passive pressure should be neglected within the upper 6 inches, unless the soil is confined by concrete slabs or pavements.

Mat Slabs

Mat slabs of the size required for this project are typically a double mat reinforced slab with thickened areas at the edges and where heavier loads are anticipated, such as at columns and stem walls. The bottoms of all excavations for thickened areas should be thoroughly cleaned out, wetted and compacted prior to placing steel and concrete. This will remove the soils disturbed during excavations, restore their adequate bearing capacity, and reduce post-construction settlements.

A mat slab installed in accordance with the remedial grading recommendations presented herein may be designed using allowable bearing pressures of 2,000, 3,000 and 4,000 psf for dead loads, dead plus code live loads, and total loads (including wind and seismic), respectively. The slabs should also be designed using a modulus of subgrade reaction (k) of 80 pounds per cubic inch (pci), a modulus of elasticity of 250 kips per square foot (ksf), consolidation-induced differential settlement of ½-inch across the structure, and earthquake-induced differential settlement of ¼ inch across the structure. The portion of the foundation extending into engineered fill may impose a passive equivalent fluid pressure and a friction factor of 350 pcf and 0.35, respectively, to resist sliding. Passive pressure should be neglected within the upper 6 inches, unless the soils are confined by concrete slabs or pavements. The mat slab should be designed for 10 feet of non-support for the interior of the slab and to cantilever 5 feet at the edges.

The mat slab should be underlain with a capillary moisture break consisting of at least 4 inches of clean, free-draining crushed rock or gravel (excluding pea gravel) at least ¼-inch and no larger than ¾-inch in size. The subgrade soils within and for a distance of 5 feet beyond the footprint of the building(s) should be kept pre-swelled until the capillary moisture break is placed. The moisture content of the subgrade soils should be approved by the geotechnical engineer within 24 hours prior to placing the capillary moisture break. Where migration of moisture vapor through slabs would be detrimental, a moisture vapor barrier should be provided.

Because mat slabs are designed to “float” as the underlying soils settle differentially, structural elements that are attached to the structure but have their own foundation should not be used or should be founded on the mat slab. Alternatively, these elements should be completely separated from the structure and the mat slab. In addition, exterior slabs adjacent to the mat slab should be cast separate from the mat slab to allow differential settlement to occur without distressing the exterior slab.

Retaining Walls

Retaining walls constructed at the site must be designed to resist lateral earth pressures plus additional lateral pressures that may be caused by surcharge loads applied at the ground surface behind the walls. Retaining walls free to rotate (yielding greater than 0.1 percent of the wall height at the top of the backfill) should be designed for active lateral earth pressures. If walls are restrained by rigid elements to prevent rotation, they should be designed for "at rest" lateral earth pressures.

Retaining walls should be designed to resist the following earth equivalent fluid pressures (triangular distribution):

EARTH EQUIVALENT FLUID PRESSURES		
Loading Condition	**Pressure (pcf)**	**Additional Seismic Pressure (pcf)***
Active - Level Backfill	42	13
Active - Sloping Backfill 3:1 or Flatter	53	31
At Rest - Level Backfill	63	32

* If required

These pressures do not consider additional loads resulting from adjacent foundations or other loads. If these additional surcharge loadings are anticipated, we can assist in evaluating their effects. Where retaining wall backfill is subject to vehicular traffic, the walls should be designed to resist an additional surcharge pressure equivalent to two feet of additional backfill.

Retaining walls will yield slightly during backfilling. Therefore, walls should be backfilled prior to building on, or adjacent to, the walls. Backfill against retaining walls should be compacted to at least 90 and not more than 95 percent relative compaction. Over-compaction or the use of large compaction equipment should be avoided because increased compactive effort can result in lateral pressures higher than those recommended above.

Foundation Support

Retaining walls should be supported on spread footings designed in accordance with the recommendations presented in this report. Retaining wall foundations gaining support in native soil should be deepened to 36 inches below the lowest adjacent grade. Retaining wall foundations should be designed by the project civil or structural engineer to resist the lateral forces set forth in this section.

Wall Drainage and Backfill

Retaining walls should be backdrained as shown on Plate 10, Appendix A. The backdrains should consist of 4-inch diameter, rigid perforated pipe embedded in Class 2 permeable material. The pipe should be PVC Schedule 40 or ABS with SDR 35 or better, and the pipe should be sloped to drain to outlets by gravity. The top of the pipe should be at least 8 inches below lowest adjacent grade. The Class 2 permeable material should extend to within 1½ feet of the surface. The upper 1½ feet should be backfilled with compacted soil to exclude surface water. Expansive soil should not be used for wall backfill. Where expansive soil is present in the excavation made to install the retaining wall, the excavation should be sloped back 1:1 from the back of the footing or grade beam. The ground surface behind retaining walls should be sloped to drain. Where migration of moisture through retaining walls would be detrimental, retaining walls should be waterproofed.

Slab-On-Grade

Because of expansive soil, slab-on-grade floors should not be used in interior areas that are not underlain by at least 30 inches of select fill. Slabs-on-grade can be used in garages and exterior flatwork areas provided the slabs are underlain by at least 12 inches of select fill (not counting the slab rock).

Slab-on-grade subgrade should be rolled to produce a dense, uniform surface. The future expansion potential of the subgrade soil should be reduced by thoroughly presoaking the slab subgrade prior to concrete placement. The moisture condition of the subgrade soil should be checked by the geotechnical engineer no more than 24 hours prior to placing the capillary moisture break. The slabs should be underlain with a capillary moisture break consisting of at least 4 inches of clean, free-draining crushed rock or gravel (excluding pea gravel) at least ¼-inch and no larger than ¾-inch in size. Interior slabs subject to vehicular traffic may be underlain by Class 2 aggregate base. The use of Class 2 aggregate base should be reviewed on a case by case basis. Class 2 aggregate base can be used for slab rock under exterior slabs. Outlets should be provided for the interior slab rock to drain through foundation walls into a perimeter subdrain. Interior area slabs should be provided with an underdrain system. The installation of this subdrain system is discussed in the “Geotechnical Drainage” section.

Slabs should be designed by the project civil or structural engineer to support the anticipated loads, reduce cracking and provide protection against the infiltration of moisture vapor. Warehouse slabs subjected to heavy concentrated wheel loads, such as forklift or trailer-trucks, should be designed to carry the anticipated wheel loads.

A vapor barrier should be incorporated into the floor slab design in all areas where moisture-sensitive floor coverings, coatings, underlayments, adhesives, moisture sensitive goods, humidity-controlled environments, or climate-cooled environments are anticipated initially, or in the future. Vapor barrier should consist of a minimum 15 mil extruded polyolefin plastic (no recycled content or woven materials permitted); permeance as tested before and after mandatory conditioning (ASTM E1745 Section 7.1 and Sub-paragraphs 7.1.1 – 7.1.5): less than 0.01 perms [grains/(ft2 per hour in Hg)] and comply with the ASTM E1745 class a requirements. The vapor barrier should also meet paragraph’s 8.1 and 9.3 of ASTM E1745; subsequent documentation should be provided by the vapor barrier manufacturer. Install vapor barrier in accordance with ASTM E1643, including proper perimeter seal.

Utility Trenches

The shoring and safety of trench excavations is solely the responsibility of the contractor. Attention is drawn to the State of California Safety Orders dealing with "Excavations and Trenches."

Unless otherwise specified by the City of American Canyon, on-site, inorganic soil may be used as utility trench backfill. Where utility trenches support pavements, slabs and foundations, trench backfill should consist of aggregate baserock. The baserock should comply with the minimum requirements in Caltrans Standard Specifications, Section 26 for Class 2 Aggregate Base. Trench backfill should be moisture-conditioned as necessary, and placed in horizontal layers not exceeding 8 inches in thickness, before compaction. Each layer should be compacted to at least 90 percent relative compaction as determined by ASTM Test Method D-1557. The top 6 inches of trench backfill below vehicle pavement subgrades should be moisture-conditioned as necessary and compacted to at least 95 percent relative compaction. Jetting or ponding of trench backfill to aid in achieving the recommended degree of compaction should not be attempted.

Pavements

Based on our study, we believe the near-surface soil will have a low supporting capacity, after proper compaction, when used as a pavement subgrade. An R-value of 5 was measured on a bulk sample of near-surface soil obtained near the surface of our borings. An R-value of 5 is typically the lowest value used in design. The assumed Traffic Indices (TI) are not based on actual truck traffic counts or predictions of counts. Actual truck traffic counts may require revision of these traffic indices. The project engineer, in consultation with City/County officials, should choose the pertinent TI for this project.

Provided the site grading is performed to remediate expansive soil heave, as recommended herein, the uppermost 12-inches of pavement subgrade soil will be either imported select fill with a minimum R-value of 20 or lime stabilized site soil that generally has an R-value of at least 50. Based on those R-values we recommend the pavement sections listed in the tables below be used.

PAVEMENT SECTIONS WITH IMPORTED SELECT FILL SUBGRADE			
TI	ASPHALT CONCRETE (feet)	CLASS 2 AGGREGATE BASE (feet)	IMPORTED SELECT FILL* (feet)
7.0	0.30	1.15	1.0
6.0	0.25	1.05	1.0
5.0	0.20	0.90	1.0

* R-value ≥ 20

PAVEMENT SECTIONS WITH LIME STABILIZED SELECT FILL SUBGRADE			
TI	ASPHALT CONCRETE (feet)	CLASS 2 AGGREGATE BASE (feet)	LIME STABILIZED SELECT FILL* (feet)
7.0	0.35	0.50	1.0
6.0	0.30	0.50	1.0
5.0	0.20	0.50	1.0

* R-value ≥ 50

Pavement thicknesses were computed using the Caltrans Highway Design Manual and are based on a pavement life of 20 years. These recommendations are intended to provide support for traffic represented by the indicated Traffic Indices. They are not intended to provide pavement sections for heavy concentrated construction storage or wheel loads such as forklifts, parked truck-trailers and concrete trucks or for post-construction concentrated wheel loads such as self-loading dumpster trucks. In areas where heavy construction storage and wheel loads are anticipated, the pavements should be designed to support these loads. Support could be provided by increasing pavement sections or by providing reinforced concrete slabs. Alternatively, paving can be deferred until heavy construction storage and wheel loads are no longer present. Loading areas for self-loading dumpster trucks should be provided with reinforced concrete slabs.

Because of the expansion potential of the soil at the site and the difficulty in controlling seasonal moisture variation beneath and adjacent to the driveway, significant cracking may develop in the pavement even if 12-inches of select fill is installed. Increasing the thickness of select fill or installing moisture cutoffs may reduce but not eliminate the potential for cracks to develop. It should be understood that pavements will likely require regular maintenance including crack sealing and the aesthetics may not be desirable.

Prior to placement of aggregate base, the upper 6 inches of the pavement subgrade soil (excluding lime stabilized soil) should be scarified, uniformly moisture-conditioned to near optimum, and compacted to at least 95 percent relative compaction to form a firm, non-yielding surface. Lime stabilized select fill subgrade soil should be compacted as specified in Section 24 of the Caltrans Standard Specifications. Aggregate base materials should be spread in thin layers, uniformly moisture-conditioned, and compacted to at least 95 percent relative compaction to form a firm, non-yielding surface. The materials and methods used should conform to the requirements of the City of American Canyon and the current edition of the Caltrans Standard Specifications, except that compaction requirements should be based on ASTM Test Method D-1557. Aggregate used for the base course should comply with the minimum requirements specified in Caltrans Standard Specifications, Section 26 for Class 2 Aggregate Base.

Parking Lot Drainage

Water tends to migrate under pavements and collect in the aggregate courses at low areas on parking lot subgrade soil, such as around storm drain inlets and the thread of paved swales leading to inlets. The ponded water will soften subgrade soil and, under repetitive heavy-wheel loads, will induce inordinately high stresses on the subgrade and pavement components that could result in untimely maintenance. Under-pavement drainage can be improved and maintenance reduced by replacing a 12-inch wide strip (extending at least 15 feet on either side of the inlet) of the select subbase layer or subgrade soil with a subdrain consisting of ¾-inch or 1½-inch free-draining Class 1 Permeable Material. The drain rock should be outletted into the storm drain inlet. Storm drain trenches can be made to serve as pavement subdrains. We should be consulted to verify the suitability of storm drain trenches as pavement subdrains in a case-specific basis.

Where pavements will abut landscaped areas, the pavement baserock layer and subgrade soil should be protected against saturation from irrigation and rainwater with a subdrain, similar to that previously discussed. The subdrain should extend to a depth of at least 12 inches below the bottom of the baserock layer. Alternatively, a grouted moisture cut-off that extends 12 inches below the bottom of the baserock layer should be provided below or immediately behind the curb and gutter.

Wet Weather Paving

In general, the pavements should be constructed during the dry season to avoid the saturation of the subgrade and base materials, which often occurs during the wet winter months. If pavements are constructed during the winter, a cost increase relative to drier weather construction should be anticipated. Unstable areas may have to be overexcavated to remove soft soil. The excavations will probably require backfilling with imported crushed (ballast) rock. The geotechnical engineer should be consulted for recommendations at the time of construction.

Geotechnical Drainage

Surface water should be diverted away from slopes, foundations and edges of pavements. Surface drainage gradients should slope away from building foundations in accordance with the requirements of the CBC or local governing agency. Where a gradient flatter than 2 percent for paved areas and 4 percent for unpaved areas is required to satisfy design constraints, area drains should be installed with a spacing no greater than about 20 feet. Roofs should be provided with gutters and the downspouts should empty onto splash blocks that discharge directly onto paved areas or be connected to closed (glued Schedule 40 PVC or ABS with SDR of 35 or better) conduits discharging well away from foundations, onto paved areas or into the site's surface drainage system. Roof downspouts and surface drains must be maintained entirely separate from the slab underdrains recommended hereinafter.

Water seepage or the spread of extensive root systems into the soil subgrade of footings, slabs or pavements could cause differential movements and consequent distress in these structural elements. Landscaping should be planned with consideration for these potential problems.

Slab Underdrains

Where interior slab subgrades are less than 6 inches above adjacent exterior grade and where migration of moisture through the slab would be detrimental, slab underdrains should be installed to dispose of surface and/or groundwater that may seep and collect in the slab rock. Slab underdrains should consist of 6-inch wide trenches that extend at least 6 inches below the bottom of the slab rock and slope to drain by gravity. The slab underdrain trenches should be spaced no further than 15 feet, both ways. Additional drain trenches should be installed, as necessary, to drain all isolated under slab areas. Four-inch diameter perforated pipe (SDR 35 or better) sloped to drain to outlets by gravity should be placed in the bottom of the trenches. Slab underdrain trenches should be backfilled to subgrade level with clean, free draining slab rock. An illustration of this system is shown on Plate 11. If slab underdrains are not used, it should be anticipated that water will enter the slab rock, permeate through the concrete slab and ruin floor coverings.

Maintenance

Periodic land maintenance will be required. Surface and subsurface drainage facilities should be checked frequently, and cleaned and maintained as necessary or at least annually. A dense growth of deep-rooted ground cover must be maintained on all slopes to reduce sloughing and erosion. Sloughing and erosion that occurs must be repaired promptly before it can enlarge.

Supplemental Services

Pre-Bid Meeting

It has been our experience that contractors bidding on the project often contact us to discuss the geotechnical aspects. Informal contacts between RGH Consultants (RGH) and an individual contractor could result in incomplete or misinterpreted information being provided to the contractor. Therefore, we recommend a pre-bid meeting be held to answer any questions about the report prior to submittal of bids. If this is not possible, questions or clarifications regarding this report should be directed to the project owner or their designated representative. After consultation with RGH, the project owner or their representative should provide clarifications or additional information to all contractors bidding the job.

Plan and Specifications Review

Coordination between the design team and the geotechnical engineer is recommended to assure that the design is compatible with the soil, geologic and groundwater conditions encountered during our study. RGH recommends that we be retained to review the project plans and specifications to determine if they are consistent with our recommendations. In the event we are not retained to perform this recommended review, we will assume no responsibility for misinterpretation of our recommendations.

Construction Observation and Testing

Prior to construction, a meeting should be held at the site that includes, but is not limited to, the owner or owner's representative, the general contractor, the grading contractor, the foundation contractor, the underground contractor, any specialty contractors, the project civil engineer, other members of the project design team and RGH. This meeting should serve as a time to discuss and answer questions regarding the recommendations presented herein and to establish the coordination procedure between the contractors and RGH.

In addition, we should be retained to monitor all soil related work during construction, including, but not limited to:

- Site stripping, over-excavation, grading, and compaction of near surface soil;
- Placement of all engineered fill and trench backfill with verification field and laboratory testing;
- Observation of all foundation excavations; and
- Observation of foundation and subdrain installations.

If, during construction, we observe subsurface conditions different from those encountered during the explorations, we should be allowed to amend our recommendations accordingly. If different conditions are observed by others, or appear to be present beneath excavations, RGH should be advised at once so that these conditions may be evaluated and our recommendations reviewed and updated, if warranted. The validity of recommendations made in this report is contingent upon our being notified and retained to review the changed conditions.

If more than 18 months have elapsed between the submission of this report and the start of work at the site, or if conditions have changed because of natural causes or construction operations at, or adjacent to, the site, the recommendations made in this report may no longer be valid or appropriate. In such case, we recommend that we be retained to review this report and verify the applicability of the conclusions and recommendations or modify the same considering the time lapsed or changed conditions. The validity of recommendations made in this report is contingent upon such review.

These supplemental services are performed on an as-requested basis and are in addition to this geotechnical study. We cannot accept responsibility for items that we are not notified to observe or for changed conditions we are not allowed to review.

LIMITATIONS

This report has been prepared by RGH for the exclusive use of the property owner and their consultants as an aid in the design and construction of the proposed improvements described in this report.

The validity of the recommendations contained in this report depends upon an adequate testing and monitoring program during the construction phase. Unless the construction monitoring and testing program is provided by our firm, we will not be held responsible for compliance with design recommendations presented in this report and other addendum submitted as part of this report.

Our services consist of professional opinions and conclusions developed in accordance with generally accepted geotechnical engineering principles and practices. We provide no warranty, either expressed or implied. Our conclusions and recommendations are based on the information provided to us regarding the proposed construction, the results of our field exploration, laboratory testing program, and professional judgment. Verification of our conclusions and recommendations is subject to our review of the project plans and specifications, and our observation of construction.

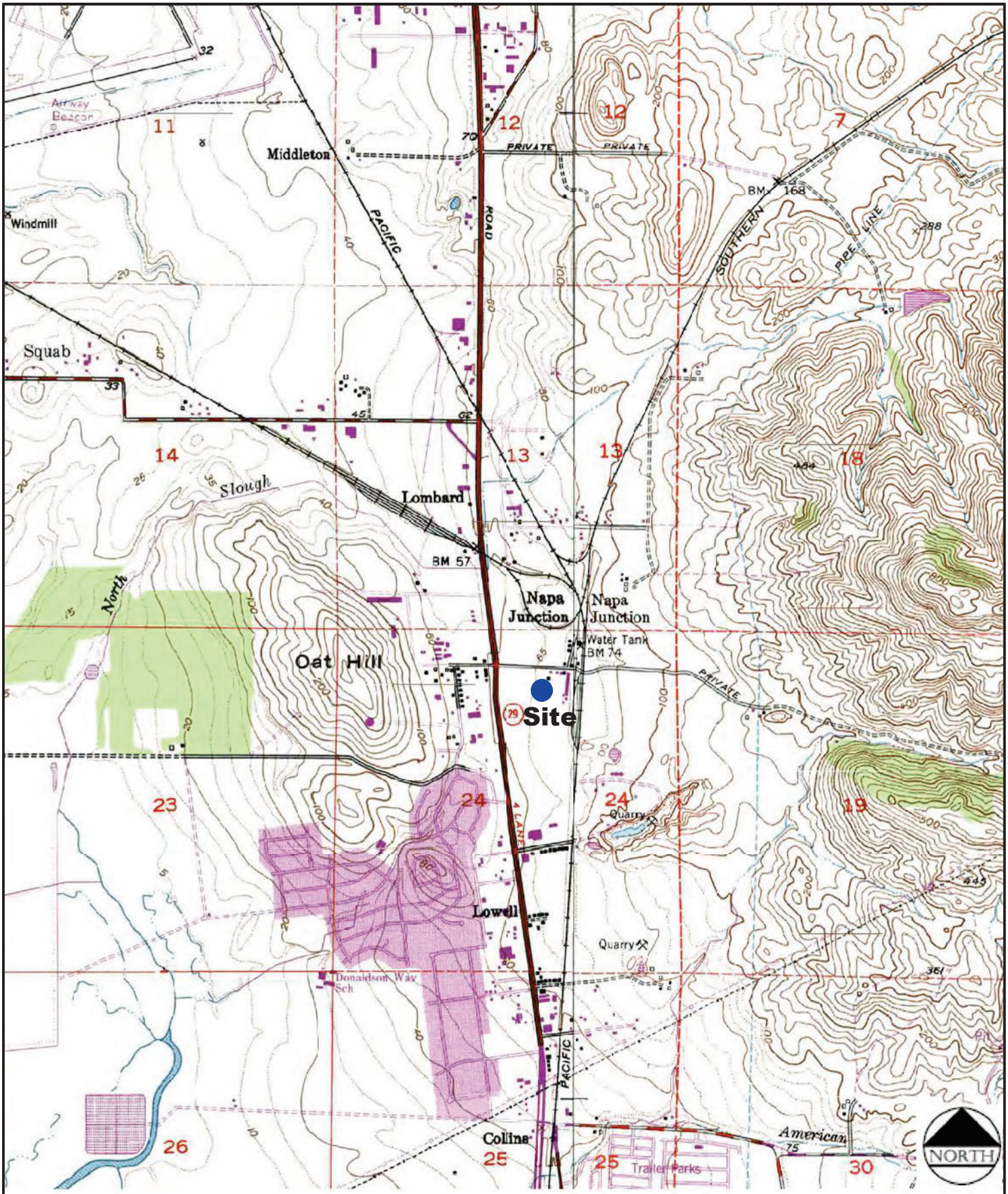
The borings represent the subsurface conditions at the locations and on the date indicated. It is not warranted that they are representative of such conditions elsewhere or at other times. Site conditions and cultural features described in the text of this report are those existing at the time of our field exploration and may not necessarily be the same or comparable at other times.

The scope of our services did not include an environmental assessment or a study of the presence or absence of toxic mold and/or hazardous, toxic or corrosive materials in the soil, surface water, groundwater or air (on, below or around this site), nor did it include an evaluation or study for the presence or absence of wetlands. These studies should be conducted under separate cover, scope and fee and should be provided by a qualified expert in those fields.

APPENDIX A - PLATES

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Plate 2	Exploration Plan
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Plate 7	Soil Classification Chart and Key to Test Data
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Plate 9	Resistance (R) Value Data
Plate 10	Retaining Wall Backdrain Illustration
Plate 11	Typical Subdrain Details Illustration



Reference: Maptech Topoquad, Cuttings Warf, California Quadrangle

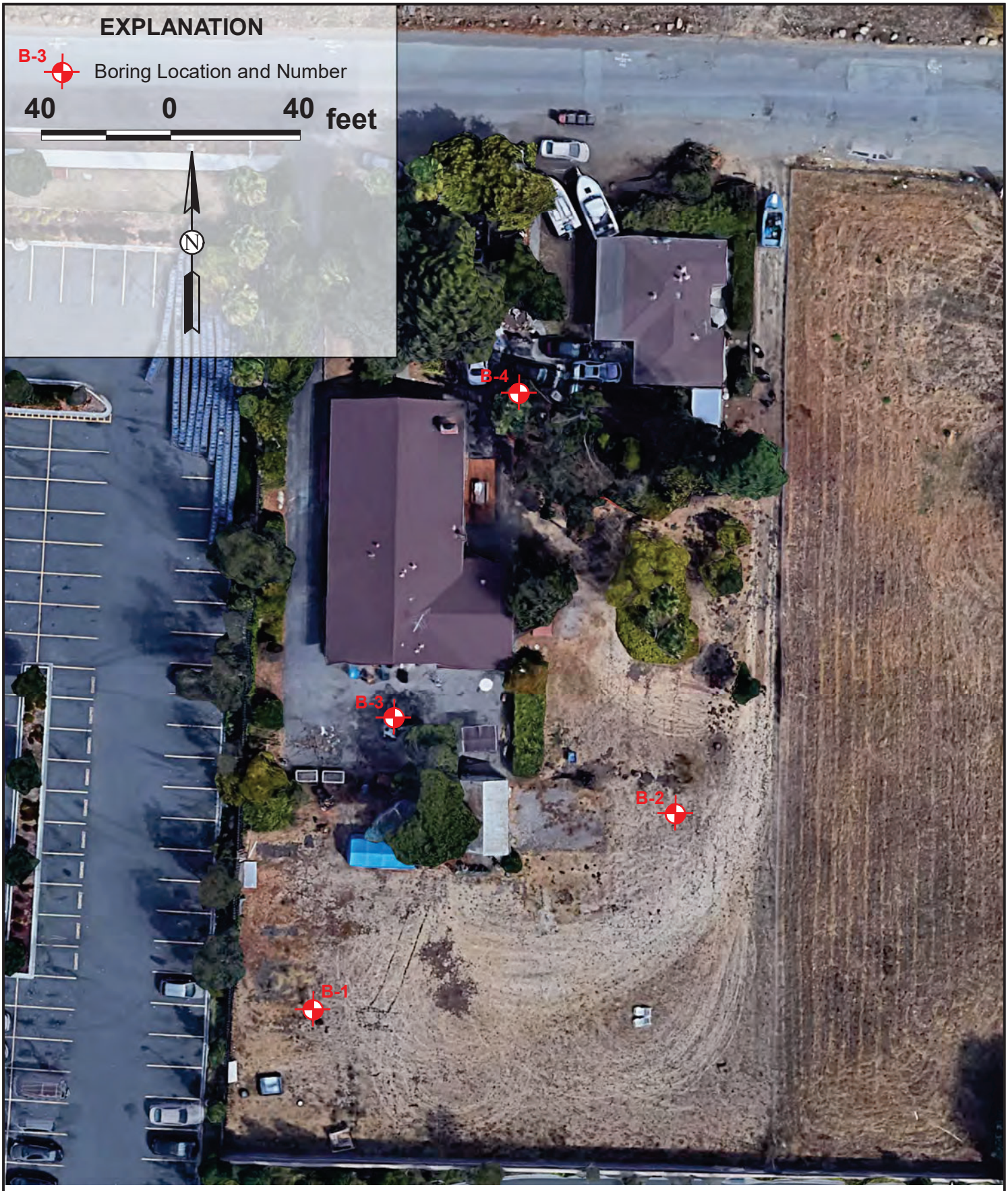
Scale: 1" = 2000'

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Job No: 7530.01.04.2 | Date: OCT 2021

SITE LOCATION MAP
Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

PLATE
1



Reference: Google Earth, October, 2021

Scale: 1" = 40'

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Date: OCT 2021

EXPLORATION PLAN
Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

PLATE
2

Date Drilled **9/20/2021**	Logged By **LFC**	Checked By **REP**
Drilling Method **Solid Stem Auger**	Drill Bit Size/Type **4 inch**	Total Depth of Borehole **20 1/2 feet**
Drill Rig Type **B-53 Mobile**	Drilling Contractor **Pearson**	Approximate Surface Elevation **Existing Ground Surface**
Groundwater Level **16 1/2 feet**	Sampling Method(s) **Modified California**	Hammer Data **140 lb 30" drop**

Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, ksf	REMARKS AND OTHER TESTS
0				DARK BROWN CLAY WITH SAND (CH), stiff, dry to moist, porous to 2 feet, dessication cracks at surface 1 inch wide and 6 inches deep			82.9	44.1	63.3	80		
		12										
		16		LIGHT BROWN SANDY CLAY (CH), stiff to hard, moist, orange and black coarse sands, sparse gravel								
5												
		15					59.5					
10		17					59.3					
				LIGHT BROWN / GRAY SANDY SILT (MH), stiff, moist, sparse gravel								
15		15										
				LIGHT BROWN CLAYEY SAND (SC), dense, moist								
20		31										
				Boring terminated at 20 1/2 feet Groundwater measured at 16 1/2 feet								

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LOG OF BORING B-1
Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

PLATE
3

Date Drilled **9/20/2021**	Logged By **LFC**	Checked By **REP**
Drilling Method **Solid Stem Auger**	Drill Bit Size/Type **4 inch**	Total Depth of Borehole **15 feet**
Drill Rig Type **B-53 Mobile**	Drilling Contractor **Pearson**	Approximate Surface Elevation **Existing Ground Surface**
Groundwater Level **No Groundwater Encountered**	Sampling Method(s) **Modified California, SPT**	Hammer Data **140 lb 30" drop**

Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, ksf	REMARKS AND OTHER TESTS
0				DARK BROWN SANDY CLAY (CH), medium stiff, dry, dessication cracks								
		11										
5		15		LIGHT BROWN / GRAY SANDY CLAY (CH), stiff to very stiff, moist, black and white mottling								
		14										
10												
		19										
		23										
15				Boring terminated at 15 feet No groundwater encountered								
20												

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LOG OF BORING B-2

Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

PLATE **4**

Date Drilled **9/20/2021**	Logged By **LFC**	Checked By **REP**
Drilling Method **Solid Stem Auger**	Drill Bit Size/Type **4 inch**	Total Depth of Borehole **15 feet**
Drill Rig Type **B-53 Mobile**	Drilling Contractor **Pearson**	Approximate Surface Elevation **Existing Ground Surface**
Groundwater Level **No Groundwater Encountered**	Sampling Method(s) **Modified California, SPT**	Hammer Data **140 lb 30" drop**

Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, ksf	REMARKS AND OTHER TESTS
0				1-1/2" ASPHALT OVER 4-1/2" AGGREGATE BASE								
				DARK BROWN CLAY (CH), stiff, moist								
		9										
		9										
5		15		LIGHT BROWN CLAY (CH), stiff, moist								
				LIGHT BROWN CLAYEY SAND (SC), medium dense, moist								
		19										
10		18										
				LIGHT BROWN SANDY CLAY (CH), very stiff, moist, sparse rootlets								
		20										
15				Boring terminated at 15 feet No groundwater encountered								
20												

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Job No: 7530.01.04.2 | Date: OCT 2021

LOG OF BORING B-3
Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

PLATE **5**

Date Drilled **9/20/2021**	Logged By **LFC**	Checked By **REP**
Drilling Method **Solid Stem Auger**	Drill Bit Size/Type **4 inch**	Total Depth of Borehole **20 feet**
Drill Rig Type **B-53 Mobile**	Drilling Contractor **Pearson**	Approximate Surface Elevation **Existing Ground Surface**
Groundwater Level **18 1/2 feet**	Sampling Method(s) **Modified California, SPT**	Hammer Data **140 lb 30" drop**

Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, ksf	REMARKS AND OTHER TESTS
0				DARK BROWN SANDY CLAY (CH), very stiff, dry, sparse rootlets								
		19										
		17		BROWN CLAY (CH), very stiff, dry to moist, orange and gray mottling								
5												
		19										
10		22		BROWN CLAYEY SAND (SC), medium dense, moist, fine sand			32.4					
		16					48.1					
				LIGHT BROWN SILTY GRAVEL WITH SAND (GM), medium dense, moist								
15		17					27.1					
				BROWN CLAYEY SAND (SC), medium dense, moist								
		28										
		34										
20				Boring terminated at 20 feet Groundwater encountered at 18 1/2 feet								

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Job No: 7530.01.04.2 | Date: OCT 2021

LOG OF BORING B-4

Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

PLATE **6**

Depth (feet)	Sample Type	Sampling Resistance, blows/ft	Graphic Log	MATERIAL DESCRIPTION	Dry Density (pcf)	Water Content (%)	% <#200 Sieve	PI, %	LL, %	Expansion Index (EI)	UC, ksf	REMARKS AND OTHER TESTS
1	2	3	4	5	6	7	8	9	10	11	12	13

COLUMN DESCRIPTIONS

1 Depth (feet): Depth in feet below the ground surface.
2 Sample Type: Type of soil sample collected at the depth interval shown.
3 Sampling Resistance, blows/ft: Number of blows to advance driven sampler one foot (or distance shown) beyond seating interval using the hammer identified on the boring log.
4 Graphic Log: Graphic depiction of the subsurface material encountered.
5 MATERIAL DESCRIPTION: Description of material encountered. May include consistency, moisture, color, and other descriptive text.
6 Dry Density (pcf): Dry density, in pcf.
7 Water Content (%): Water content, percent.
8 % <#200 Sieve: % <#200 Sieve
9 PI, %: Plasticity Index, expressed as a water content.
10 LL, %: Liquid Limit, expressed as a water content.
11 Expansion Index (EI): Expansion Index (EI)
12 UC, ksf: Unconfined compressive strength, in kips per square foot.
13 REMARKS AND OTHER TESTS: Comments and observations regarding drilling or sampling made by driller or field personnel. Su, psf: Undrained Shear Strength, in pounds per square foot (psf)

FIELD AND LABORATORY TEST ABBREVIATIONS

LL: Liquid Limit, percent
PI: Plasticity Index, percent
SA: Sieve analysis (percent passing No. 200 Sieve)
Su: Undrained Shear Strength, in pounds per square foot (psf)

MATERIAL GRAPHIC SYMBOLS

Asphaltic Concrete (AC)
Fat CLAY, CLAY w/SAND, SANDY CLAY (CH)
Silty GRAVEL (GM)
SILT, SILT w/SAND, SANDY SILT (MH)
Clayey SAND (SC)

TYPICAL SAMPLER GRAPHIC SYMBOLS

2.5-inch-ID Modified California w/ brass liners
2-inch-OD unlined split spoon (SPT)

OTHER GRAPHIC SYMBOLS

Water level (at time of drilling, ATD)
Water level (after waiting)
Minor change in material properties within a stratum
Inferred/gradational contact between strata
Queried contact between strata

GENERAL NOTES

1: Soil classifications are based on the Unified Soil Classification System. Descriptions and stratum lines are interpretive, and actual lithologic changes may be gradual. Field descriptions may have been modified to reflect results of lab tests.
2: Descriptions on these logs apply only at the specific boring locations and at the time the borings were advanced. They are not warranted to be representative of subsurface conditions at other locations or times.

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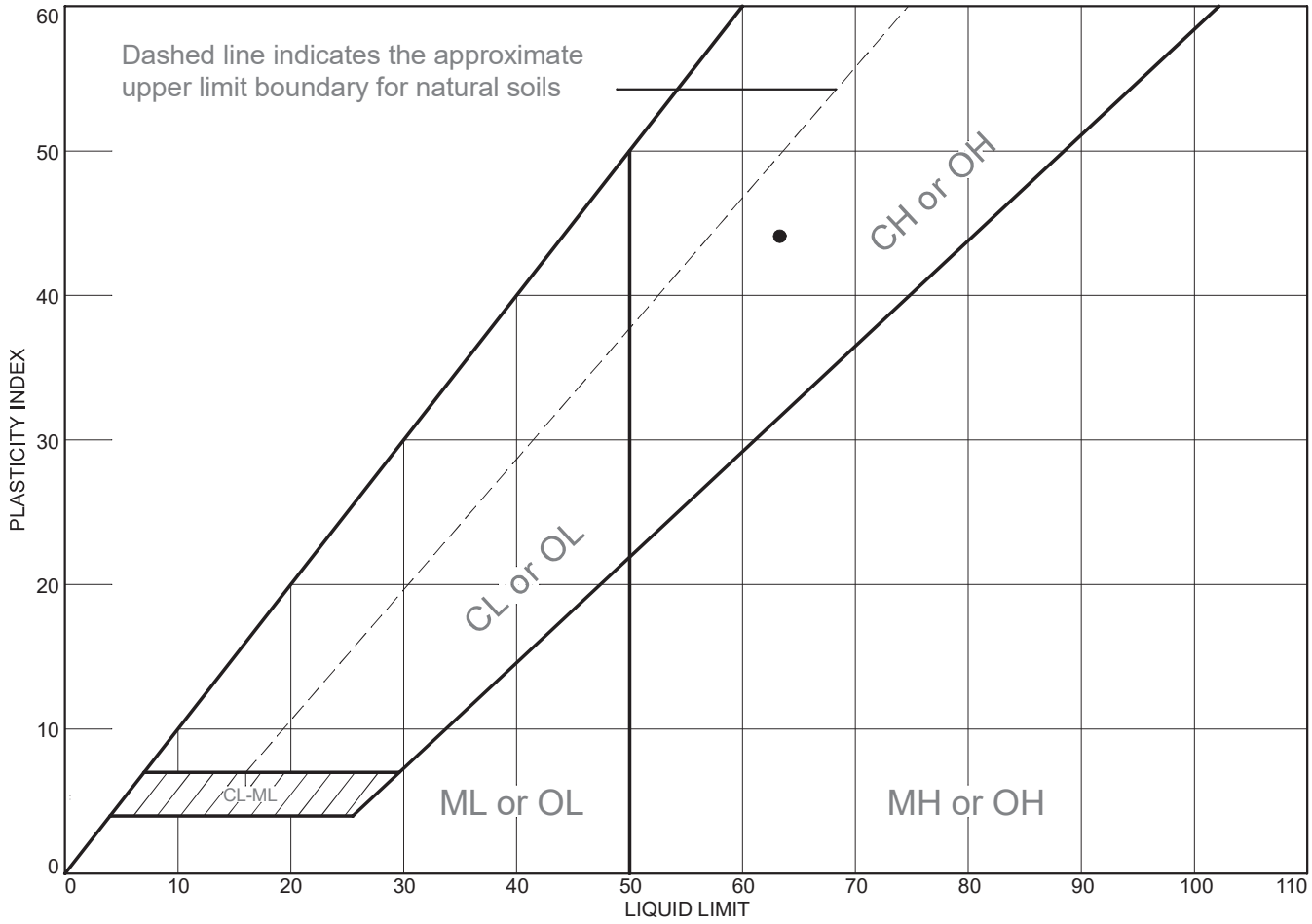
Job No: 7530.01.04.2 | Date: OCT 2021

SOIL CLASSIFICATION AND KEY TO TEST DATA

Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

PLATE 7

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	Dark Brown Clay W/ Sand (CH)	63.3	19.2	44.1		82.9	CH

Project No. 7530.01.04.2

Project: Sunsquare Mixed-Use

● Source of Sample: B-1 Depth: 1.5' & 2.0'

Remarks:

● Expansion Index= 80 (Medium)

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Figure

Tested By: SCW Checked By: SEF

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Job No: 7530.01.04.2 Date: OCT 2021

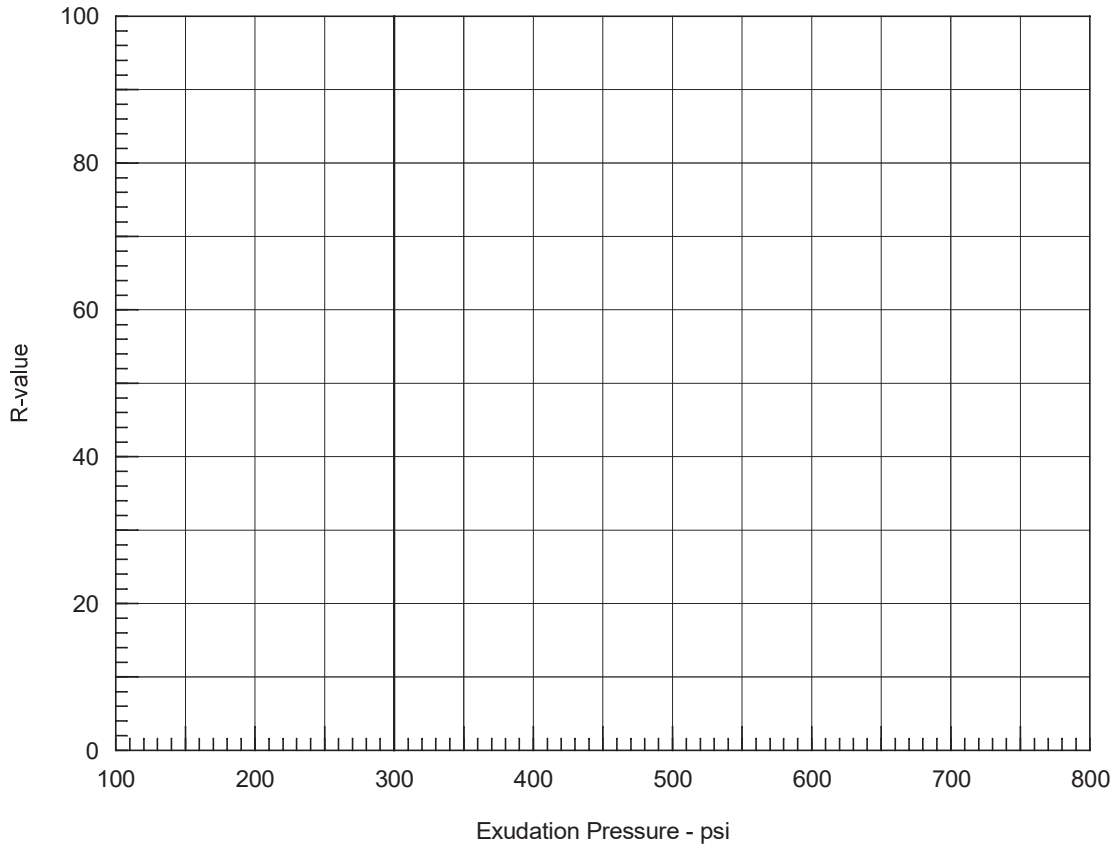
CLASSIFICATION TEST DATA

Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

PLATE

8

R-VALUE TEST REPORT



Resistance R-Value and Expansion Pressure - ASTM D2844

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psf	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.

Test Results	Material Description
R-value at 300 psi exudation pressure = n/a	Dark Brown Clay W/ Sand (CH)

Project No.: 7530.01.04.2
Project: Sunsquare Mixed-Use
Source of Sample: B-1 to B-4 Composite Depth: 1.0'-3.0'

Date: 9/30/2021

Tested by: SAM
Checked by: SEF

Remarks:
Sampled ribboned under mold & failed to produce 5 lights. R-Value shoulf be considered <5.

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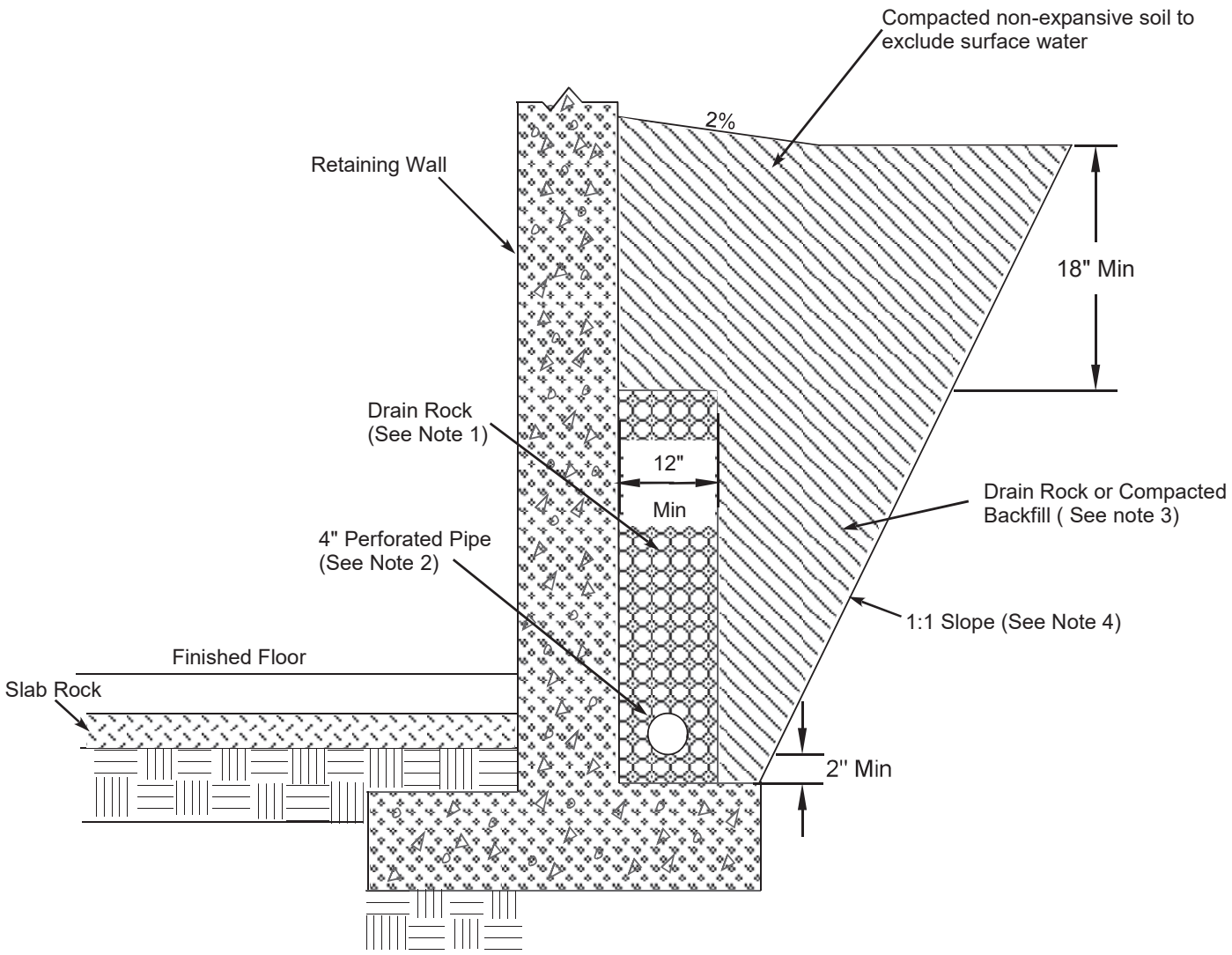
Figure

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RESISTANCE (R) VALUE DATA
Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

PLATE
9



Notes:

1. Drain rock should meet the requirements for Class 2 Permeable Material, Section 68, State of California "Caltrans" Standard Specification, latest edition. Drain rock should be placed to approximately three-quarters the height of the retaining wall.

2. Pipe should conform to the requirements of Section 68 of State of California "Caltrans" Standards, perforations placed down, sloped at 1% for gravity flow to outlet or sump with automatic pump. The pipe invert should be located at least 8 inches below the lowest adjacent finished surface.

3. During construction the contractor should use appropriate methods such as temporary bracing and/or light compaction equipment to avoid overstressing the walls. Non-expansive soils to be used as backfill.

4. Slope excavation back at a 1:1 gradient from the back of footing where expansive materials are exposed.

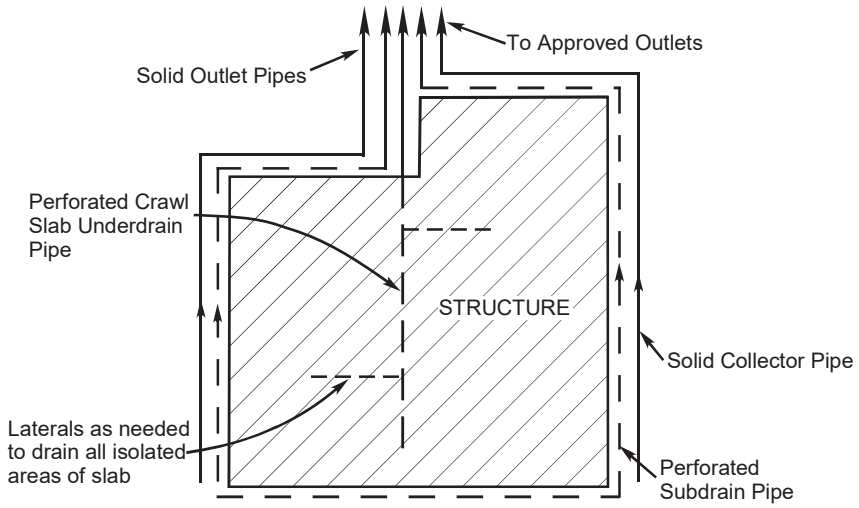
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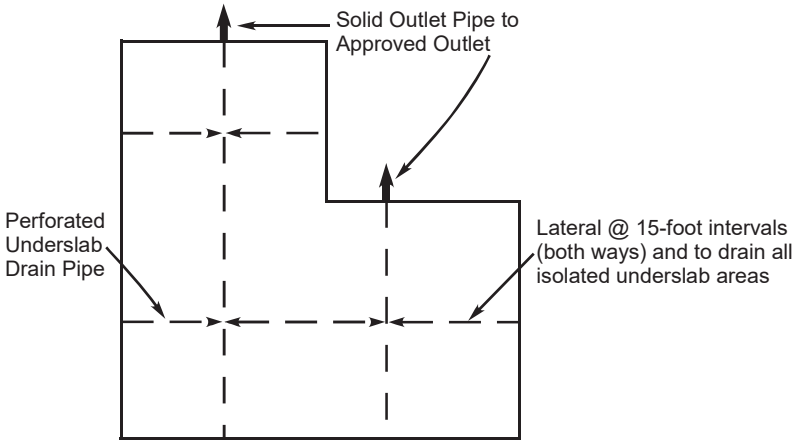
Job No: 7530.01.04.2 | Date: OCT 2021

RETAINING WALL BACKDRAIN ILLUSTRATION
Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

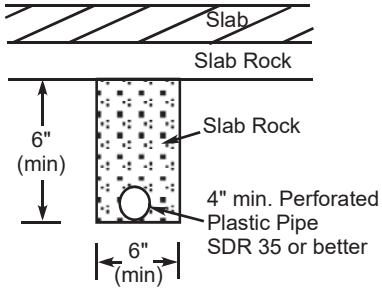
PLATE
10



TYPICAL FOUNDATION DRAIN PLAN



TYPICAL UNDERSLAB DRAIN PLAN



SLAB UNDERDRAIN

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Job No: 7530.01.04.2 | Date: OCT 2021

TYPICAL SUBDRAIN DETAILS

Sunsquare Mixed-Use
425 Napa Junction Road
American Canyon, California

PLATE **11**

APPENDIX B - REFERENCES

American Society of Civil Engineers, 2017, Minimum Design Loads and Associated Criteria for Buildings and Other Structures, ASCE Standard ASCE/SEI 7-16.

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APPENDIX C - DISTRIBUTION

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Important Information About Your

Geotechnical Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes

The following information is provided to help you manage your risks.

Geotechnical Services Are Performed for Specific Purposes, Persons, and Projects

Geotechnical engineers structure their services to meet the specific needs of their clients. A geotechnical engineering study conducted for a civil engineer may not fulfill the needs of a construction contractor or even another civil engineer. Because each geotechnical engineering study is unique, each geotechnical engineering report is unique, prepared *solely* for the client. No one except you should rely on your geotechnical engineering report without first conferring with the geotechnical engineer who prepared it. *And no one - not even you* - should apply the report for any purpose or project except the one originally contemplated.

Read the Full Report

Serious problems have occurred because those relying on a geotechnical engineering report did not read it all. Do not rely on an executive summary. Do not read selected elements only.

A Geotechnical Engineering Report Is Based on A Unique Set of Project-Specific Factors

Geotechnical engineers consider a number of unique, project-specific factors when establishing the scope of a study. Typical factors include: the client's goals, objectives, and risk management preferences; the general nature of the structure involved, its size, and configuration; the location of the structure on the site; and other planned or existing site improvements, such as access roads, parking lots, and underground utilities. Unless the geotechnical engineer who conducted the study specifically indicates otherwise, do not rely on a geotechnical engineering report that was:

- not prepared for you,
- not prepared for your project,
- not prepared for the specific site explored, or
- completed before important project changes were made.

Typical changes that can erode the reliability of an existing geotechnical engineering report include those that affect:

- the function of the proposed structure, as when it's changed from a parking garage to an office building, or from alight industrial plant to a refrigerated warehouse,
- elevation, configuration, location, orientation, or weight of the proposed structure,
- composition of the design team, or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project changes - even minor ones - and request an assessment of their impact. *Geotechnical engineers cannot accept responsibility or liability for problems that occur because their reports do not consider developments of which they were not informed.*

Subsurface Conditions Can Change

A geotechnical engineering report is based on conditions that existed at the time the study was performed. *Do not rely on a geotechnical engineering report* whose adequacy may have been affected by: the passage of time; by man-made events, such as construction on or adjacent to the site; or by natural events, such as floods, earthquakes, or groundwater fluctuations. *Always* contact the geotechnical engineer before applying the report to determine if it is still reliable. A minor amount of additional testing or analysis could prevent major problems.

Most Geotechnical Findings Are Professional Opinions

Site exploration identifies subsurface conditions only at those points where subsurface tests are conducted or samples are taken. Geotechnical engineers review field and laboratory data and then apply their professional judgment to render an opinion about subsurface conditions throughout the site. Actual subsurface conditions may differ-sometimes significantly from those indicated in your report. Retaining the geotechnical engineer who developed your report to provide construction observation is the most effective method of managing the risks associated with unanticipated conditions.

A Report's Recommendations Are *Not* Final

Do not overrely on the construction recommendations included in your report. *Those recommendations are not final*, because geotechnical engineers develop them principally from judgment and opinion. Geotechnical engineers can finalize their recommendations only by observing actual

subsurface conditions revealed during construction. The geotechnical engineer who developed your report cannot assume responsibility or liability for the report's recommendations if that engineer does not perform construction observation.

A Geotechnical Engineering Report Is Subject to Misinterpretation

Other design team members' misinterpretation of geotechnical engineering reports has resulted in costly problems. Lower that risk by having your geotechnical engineer confer with appropriate members of the design team after submitting the report. Also retain your geotechnical engineer to review pertinent elements of the design team's plans and specifications. Contractors can also misinterpret a geotechnical engineering report. Reduce that risk by having your geotechnical engineer participate in prebid and preconstruction conferences, and by providing construction observation.

Do Not Redraw the Engineer's Logs

Geotechnical engineers prepare final boring and testing logs based upon their interpretation of field logs and laboratory data. To prevent errors or omissions, the logs included in a geotechnical engineering report should *never* be redrawn for inclusion in architectural or other design drawings. Only photographic or electronic reproduction is acceptable, *but recognize that separating logs from the report can elevate risk.*

Give Contractors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can make contractors liable for unanticipated subsurface conditions by limiting what they provide for bid preparation. To help prevent costly problems, give contractors the complete geotechnical engineering report, *but* preface it with a clearly written letter of transmittal. In that letter, advise contractors that the report was not prepared for purposes of bid development and that the report's accuracy is limited; encourage them to confer with the geotechnical engineer who prepared the report (a modest fee may be required) and/or to conduct additional study to obtain the specific types of information they need or prefer. A prebid conference can also be valuable. *Be sure contractors have sufficient time* to perform additional study. Only then might you be in a position to give contractors the best information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions.

Read Responsibility Provisions Closely

Some clients, design professionals, and contractors do not recognize that geotechnical engineering is far less exact than other engineering disciplines. This lack of understanding has created unrealistic expectations that have led to disappointments, claims, and disputes. To help reduce the risk of such outcomes, geotechnical engineers commonly include a variety of explanatory provisions in their reports. Sometimes labeled "limitations" many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The equipment, techniques, and personnel used to perform a *geoenvironmental* study differ significantly from those used to perform a *geotechnical* study. For that reason, a geotechnical engineering report does not usually relate any geoenvironmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated environmental problems have led to numerous project failures.* If you have not yet obtained your own geoenvironmental information, ask your geotechnical consultant for risk management guidance. *Do not rely on an environmental report prepared for someone else.*

Obtain Professional Assistance To Deal with Mold

Diverse strategies can be applied during building design, construction, operation, and maintenance to prevent significant amounts of mold from growing on indoor surfaces. To be effective, all such strategies should be devised for the express purpose of mold prevention, integrated into a comprehensive plan, and executed with diligent oversight by a professional mold prevention consultant. Because just a small amount of water or moisture can lead to the development of severe mold infestations, a number of mold prevention strategies focus on keeping building surfaces dry. While groundwater, water infiltration, and similar issues may have been addressed as part of the geotechnical engineering study whose findings are conveyed in-this report, the geotechnical engineer in charge of this project is not a mold prevention consultant; ***none of the services performed in connection with the geotechnical engineer's study were designed or conducted for the purpose of mold prevention. Proper implementation of the recommendations conveyed in this report will not of itself be sufficient to prevent mold from growing in or on the structure involved.***

Rely on Your ASFE-Member Geotechnical Engineer For Additional Assistance

Membership in ASFE/The Best People on Earth exposes geotechnical engineers to a wide array of risk management techniques that can be of genuine benefit for everyone involved with a construction project. Confer with your ASFE-member geotechnical engineer for more information.

ASFE
The Best People on Earth

8811 Colesville Road/Suite G106, Silver Spring, MD 20910
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IIGER06045.0M

Attachment 9

September 26, 2022

Mr. Max Konan
Sun Square Asset Management, Inc.
3423 Broadway #01
American Canyon, CA 94503

Focused Traffic Study for Sun Square Project

Dear Mr. Konan;

As requested, W-Trans has prepared a focused traffic study for the Sun Square mixed use project proposed in the City of American Canyon. The purpose of this letter is to address the potential transportation impacts associated with the project and its consistency with the Broadway District Specific Plan (BDSP).

Project Description

The project is proposed to be completed in two phases. Phase 1 would include one building with five residential units and 1,950 square feet of office space. With the completion of Phase 2, the project would include four buildings containing 20 apartments and a 7,800 square foot building that has an anticipated office use and to house a day program for adults with disabilities; the portion of the building to be used for the day program could potentially be converted to an office use in the future. The project site is located at 425 Napa Junction Road and is currently occupied by two single family dwellings. Access to the site would be provided via a driveway on Napa Junction Road. The project site plan is enclosed.

Trip Generation

The anticipated trip generation for the proposed project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition, 2021. The trip generation potential of the existing site uses that would be eliminated to make way for the project was estimated using the rates for "Single Family Dwellings" (Land Use #210) while trips for the project as planned were developed using the published standard rates for Multifamily Housing (Low-Rise) (Land Use #221) and General Office (Land Use #710), as these descriptions most closely match the proposed project. While the commercial building is anticipated to be used for a day program for adults with disabilities, it may be used as office space in the future; since the office use is the more intensive use, the office rate was applied.

Based on application of these assumptions, the proposed project is expected to generate an average of 241 trips per day, including 23 a.m. peak hour trips and 24 trips during the p.m. peak hour; after accounting for the existing uses, the project would result in a net increase of 22 trips during both the a.m. and p.m. peak hours. These results are summarized in Table 1.

Table 1 – Trip Generation Summary

Land Use	LU#	Units	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Existing												
Single Family Housing	210	-2 du	9.43	-19	0.70	-1	0	-1	0.94	-2	-1	-1
Proposed												
Multifamily Housing (Low-Rise)	220	20 du	6.74	135	0.40	8	2	6	0.51	10	6	4
General Office	710	7.80 ksf	10.84	85	1.52	12	10	2	1.44	11	2	9
Total Project Trips				***220***	***1.00***	***20***	***12***	***8***		***21***	***8***	***13***
Total (Net New Trips)				**201**		**19**	**12**	**7**		**19**	**7**	**12**

Note: du = dwelling unit; ksf = 1,000 square feet

Consistency with Broadway District Specific Plan

The project site is located within the area covered by the Broadway District Specific Plan (BDSP) adopted in 2019) and is specifically in the Downtown Core subarea. City staff provided guidance indicating that if the proposed project is consistent with the BDSP a focused traffic study would be adequate to evaluate the potential impacts of the project.

Potential transportation impacts of the BDSP were identified and analyzed in an Environmental Impact Report (EIR). However, the EIR transportation modeling evaluated the aggregate potential development allocated to each subarea, so trip generation estimates were not available for individual sites within the Downtown Core subarea. Therefore, to determine consistency with the BDSP, the proposed land uses and floor-area ratios (FAR) were compared with the site's permitted uses and FAR requirements.

For the Downtown Core subarea, permitted land uses include multifamily residential and office, which are identified as uses proposed for the project. The applicant also proposes to use a portion of the commercial space for a day care program for adults with developmental disabilities. The use identified in the BDSP that is closest to the proposed day program use is Day Care Center, which is a permitted use requiring a minor use permit from the City. The site is located in the Community Commercial zone, for which the City has established a maximum FAR of 1.5 for mixed-use projects, including 1.0 for the residential portion of the project and 0.5 for the commercial portion. As proposed, the project FAR is 0.36 for the residential portion of the site and 0.23 for the commercial portion and is therefore consistent with City requirements, though as it is well below the maximum it would reasonably be expected to generate fewer trips than may have been assumed for the site.

No transportation mitigation measures were identified in the EIR. Since the proposed uses are consistent with those evaluated in the EIR and may reasonably be expected to have a lesser effect due to the lower trip generation, no additional impacts would be introduced, and no mitigations would be required.

Finding – The project as proposed was determined to be consistent with the permitted uses identified and analyzed for the Downtown Core subarea in the BDSP EIR as well as the City's FAR requirements for mixed-use projects in the Community Commercial zone. As a result, no analysis of traffic operations was required, and no transportation mitigations are required.

Alternative Modes

Pedestrian Facilities

There are numerous commercial sites and bus stops within one-half mile of the site, so it is reasonable to assume that some residents of the project would want to walk to these destinations. Sidewalks are not present along the project frontage, but sidewalks are present along the south side of Napa Junction Road between the project site and SR 29 and along the north side of Napa Junction Road. As part of the project sidewalks would be provided along the project frontages. Pedestrian paths are also available on the east side of SR 29 along the frontage and within the commercial developments to the north and south of Napa Junction Road. Further away from the project, sidewalk coverage is more limited.

Finding – Pedestrian access would be adequate with the completion of sidewalks along the project frontage as part of Phase 1 of the project.

Bicycle Facilities

A Class I path is present along the east side of SR 29 between Eucalyptus Drive and Napa Junction Road. Several bicycle facilities are proposed in the project vicinity, including bike lanes along Napa Junction Road, an extension of the existing Class I path north to the City limit, and a segment of the Napa Valley Vine Trail along Devlin Road from Eucalyptus Drive to the southern City limit.

Finding – Bicycle facilities would be adequate to serve the project and would be improved with the completion of planned facilities.

Transit Facilities

VINE Transit provides fixed route bus service throughout Napa County. Route 11, the Napa-Vallejo Connector, operates primarily along the SR 29 corridor. There is a northbound stop in the Walmart shopping center and a southbound stop at the intersection of SR 29/Napa Junction Road, both within 0.3 miles of the project. American Canyon Transit (ACT) is an on-demand, door-to-door, transit service for persons with disabilities who cannot independently use regular fixed-route transit services.

The applicant has estimated that transportation for 90 percent of clients of the proposed day program would be provided by vans operated by the program. Clients not transported by van would be driven to the site. This use would therefore not be expected to impact transit services.

Finding – Transit service providing access to the project site is adequate.

Site Access

The site would be accessed through a driveway onto Napa Junction Road to be located approximately 30 feet east of the western boundary of the property. All interior drive aisles and parking stalls should be designed to comply with City design standards and on-site circulation and site access is therefore expected to function acceptably for emergency response vehicles.

Sight Distance

At driveways a substantially clear line of sight should be maintained between the driver of a vehicle waiting on the driveway and the driver of an approaching vehicle.

Sight distance along Napa Junction Road at the location of the proposed driveway was evaluated based on stopping sight distance criteria in the *Highway Design Manual* published by Caltrans. For a design speed of 25

mph, the minimum stopping sight distance is 150 feet; there are no obstructions to sight lines, as the street is straight and flat and on-street parking is not permitted along Napa Junction Road. Frontage improvements should be designed to maintain adequate sight lines, including conformance to City maximum height requirements for vegetation.

Finding – Emergency vehicle access would be adequate. With frontage improvements designed to maintain sight lines, site access would be adequate.

Parking

The project was analyzed to determine whether the proposed parking supply would be sufficient to accommodate the anticipated parking demand. Jurisdiction parking supply requirements are based on the City of American Canyon Municipal Code, Section 19.21.030, Vehicle Parking Requirements. Per the City code, multifamily housing is required to provide 1.5 spaces for each one-bedroom unit, while office uses are required to provide one space per 300 square feet. For Phase 1, there would be a required parking supply of 16 spaces, while at build out the project would require a total required parking supply of 61 spaces. As proposed, the project would provide a total of 13 spaces in Phase 1 and 40 parking spaces for the completed project.

Residential and office uses are complementary in terms of the day of week and time of day the spaces are likely to be in use as parking demand for offices is typically higher during business hours, when many residents are at work. The City Code allows for application of shared parking principles and the reduction of the parking requirements if the proposed supply can be demonstrated to be adequate to meet the anticipated demand. A shared-parking analysis was therefore performed to more accurately determine the demand for the proposed mix of land uses and whether it could be accommodated by the proposed supply.

Phase 1 Parking Assessment

Parking demand for Phase 1 of the project was estimated using the ITE published standard rates for Multifamily Housing (Low-Rise) (ITE LU#221) and General Office (ITE LU#710) in *Parking Generation*, 5th Edition, 2019. The proposed uses were analyzed based on the Phase 1 and build-out land uses. Analyzing these uses separately, the 85th percentile demand for Phase 1 was determined to be 14 spaces on weekdays and nine spaces on Saturdays. Assuming shared parking for the site and applying ITE's estimates for parking demand by hour for each use, the 85th percentile demand for the combined office and residential uses is nine spaces on weekdays and eight spaces on Saturdays. Therefore, the proposed Phase 1 parking supply would provide one less space than the 85th percentile demand using ITE rates without considering shared parking; when shared parking is applied, the anticipated demand on both weekdays and Saturdays would be below the proposed supply. The number of spaces required by the City Code, the ITE expected demand by individual land use, and parking demand based on the shared parking analysis are shown in Table 2 and illustrated in Plate 1; estimated demand is shown only for weekdays, when demand is highest.

Table 2 – Parking Analysis Summary – Phase 1 (Weekday)

Land Use	Units	Supply (spaces)	City Requirements		ITE Parking Generation		Shared Parking
			Rate	Spaces Required	Rate	85th %-ile Demand	85th %-ile Demand
Multifamily Housing	5 du		1.5 per du + 1 guest space per 4 du	8.5	1.52	8	9
General Office	1.95 ksf		1.0 per 300 sf	6.5	3.30	6	
Net Total		**13**		**16**		**14**	**9**

Note: du = dwelling unit, ksf = 1,000 square feet

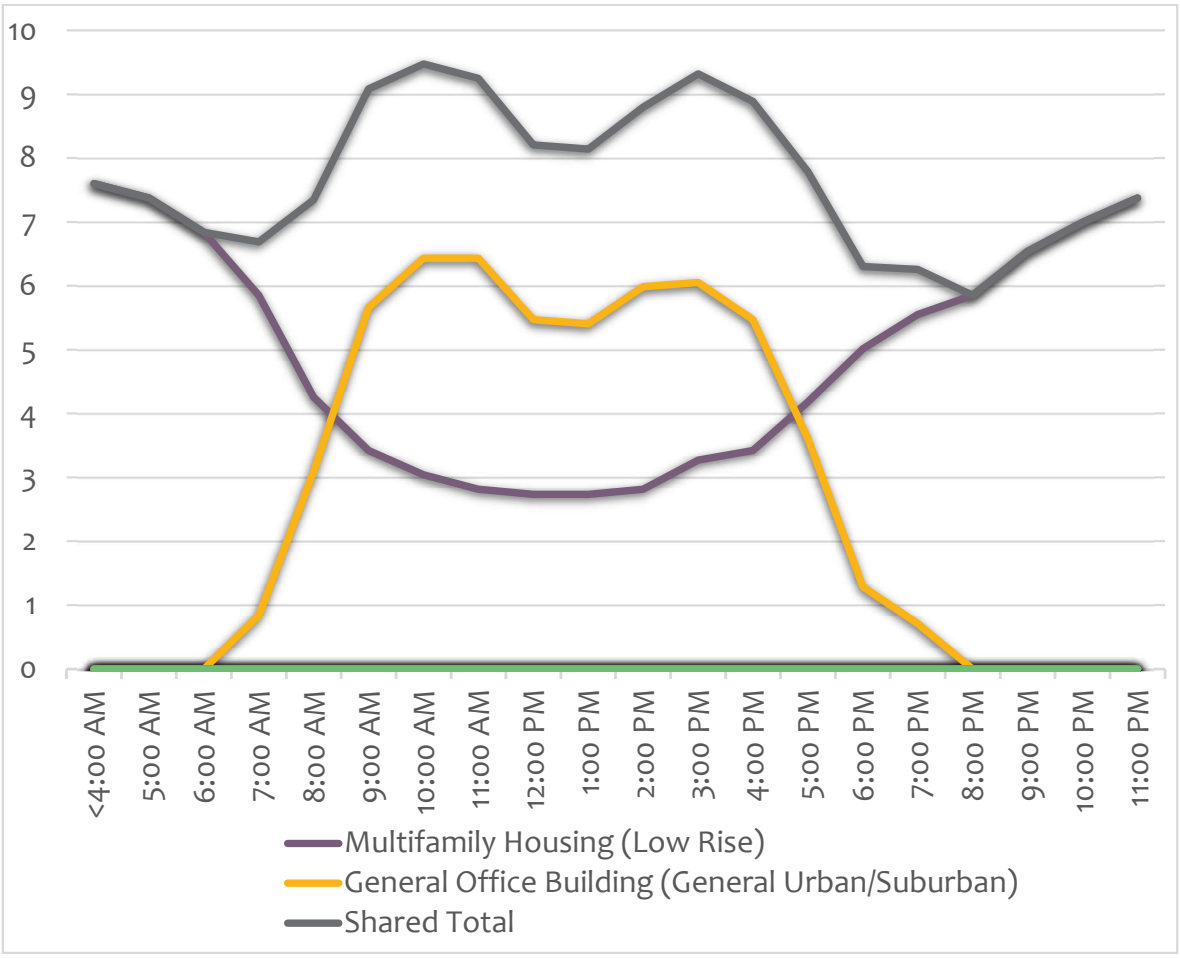


Plate 1 85th Percentile Weekday Parking Demand – Phase 1

Project Buildout Parking Assessment

The adequacy of the proposed parking supply was also conducted for the total development proposed for the site. Applying ITE parking generation rates, the 85th percentile demand was determined to be 56 parking spaces on weekdays and 38 spaces on Saturdays. Applying ITE's estimates for parking demand by hour for each use in a

shared parking scenario, the 85th percentile demand for the combined office and residential uses is 38 spaces on weekdays and 32 spaces on Saturdays; the anticipated demand on both weekdays and Saturdays is therefore below the proposed supply. Table 3 indicates the number of spaces required by the City Code, the ITE expected demand by individual land use, and parking demand based on the shared parking analysis; estimated demand is shown only for weekdays, when demand would be highest. This analysis is summarized in Table 3 and Plate 2.

Table 3 – Parking Analysis Summary (Weekday)

Land Use	Units	Supply (spaces)	City Requirements		ITE Parking Generation		Shared Parking
			Rate	Spaces Required	Rate	85th %-ile Demand	85th %-ile Demand
Multifamily Housing	20 du		1.5 per du + 1 guest space per 4 du	35	1.52	30	38
General Office	7.8 ksf		1.0 per 300 sf	26	3.30	26	
Net Total		**40**		**61**		**56**	**38**

Note: du = dwelling unit, ksf = 1,000 square feet

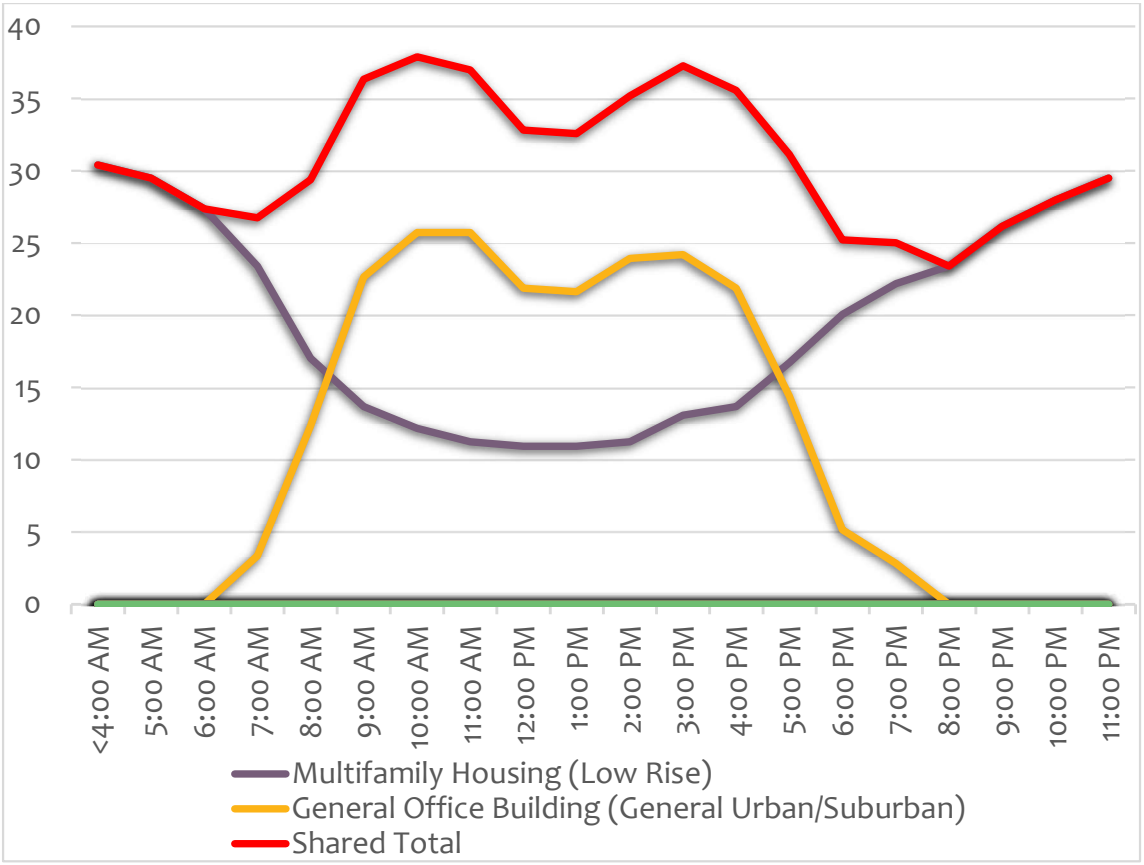


Plate 2 85th Percentile Weekday Parking Demand – Completed Project

Finding – The proposed parking supply would accommodate the anticipated 85th percentile parking demand based on application of shared parking principles for the site for both the proposed Phase 1 development and the entire development proposed for the site.

Conclusions and Recommendations

- The project is estimated to generate 201 net new trips daily, including 19 during the a.m. and p.m. peak hours.
- The project is consistent with the land uses permitted in the zoning districts as defined and evaluated in the Broadway District Specific Plan and the plan EIR; therefore, no analysis of traffic operations was required.
- Bicycle facilities would be adequate to serve the project site.
- Pedestrian and transit facilities would be adequate to serve the project site with the completion of sidewalks along the project frontage, as part of Phase 1 of the project.
- Emergency access for the site would be adequate.
- Frontage improvements should be designed to maintain adequate sight lines. Sight distance at the project driveway would therefore be adequate.
- The proposed parking supply would be sufficient to accommodate the 85th percentile anticipated demand for Phase 1 and total development proposed for the site, based on application of shared parking principles to the project site uses.

Thank you for giving W-Trans the opportunity to provide these services. Please call if you have any questions.

Sincerely,

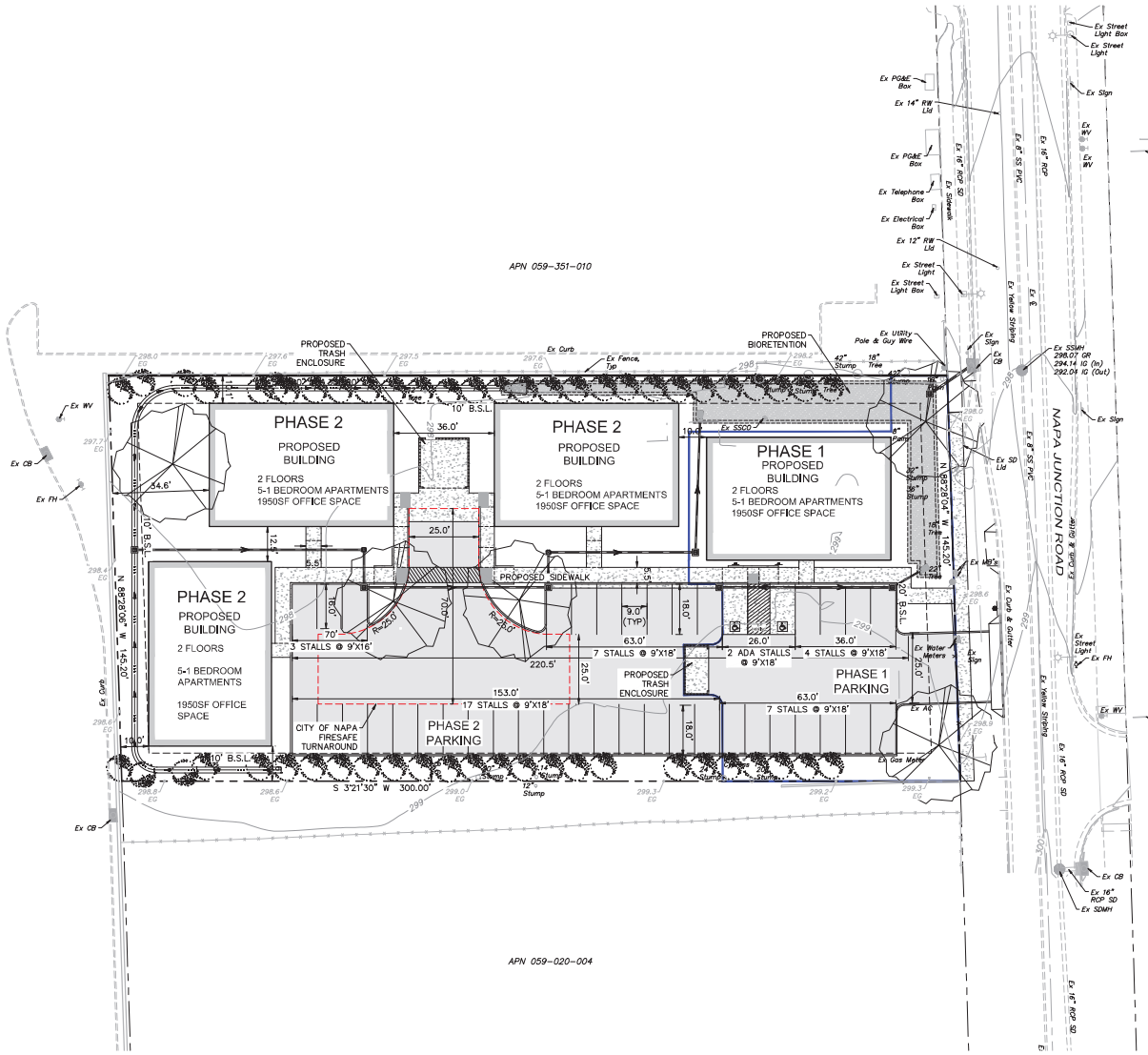
Barry Bergman, AICP
Senior Planner

Dalene J. Whitlock, PE, PTOE
Senior Principal



DJW/bdb/ACA036.L1

Enclosure: Site Plan



GRADING QUANTITIES:

Site Grading is based upon subgrade to existing grade. No account has been taken for strippings, expansion or contraction, or trench & footing spoils. Volumes should be verified and determined independently by the contractor.

CUT	FILL	TOTAL
0 CY	0 CY	0 CY (FILL)

Note:
Excess material to be off-hauled to an approved location or placed onsite under the direction of the project Soils Engineer. Earth materials placed onsite not shown on these plans may require revisions(s) to the grading permit.

Area of Disturbance =0 Acres

SHEET INDEX

C1.0 OVERALL SITE PLAN
C2.0 PRELIMINARY GRADING & DRAINAGE PLAN
C3.0 PRELIMINARY UTILITY PLAN
C4.0 PRELIMINARY OFFSITE IMPROVEMENT PLAN
C5.0 SECTIONS & DETAILS

OVERALL SITE PLAN

20' 10' 0 10' 20' 40' 60'

Graphic Scale: 1" = 20'

ABBREVIATIONS

AAI	ADOBE ASSOCIATES, INC.	EL	ELEVATION	RCE	REGISTERED CIVIL
AB	AGGREGATE BASE	ESMT	EASEMENT		ENGINEER
AC	ASPHALT CONCRETE	EX	EXISTING	R/W	RIGHT OF WAY
AD	AREA DRAIN	FL	FLOWLINE	S	SLOPE
BLDG	BUILDING	FG	FINISH GRADE	SAD	SEE ARCHITECTURAL
BM	BENCH MARK	FH	FIRE HYDRANT		DRAWINGS
C	COMPACT PARKING	FS	FINISHED SURFACE	SD	STORM DRAIN
CL	CLASS	FSS	FIRE SAFE STANDARD	SS	SANITARY SEWER
℄	CENTERLINE	GB	GRADE BREAK	STD	STANDARD
CO	CLEANOUT	GR	GRATE	TC	TOP OF CURB
CONC	CONCRETE	MH	MANHOLE	TYP	TYPICAL
DI	DROP INLET	MIN	MINIMUM	W	WATER
DWG	DRAWING	NTS	NOT TO SCALE	WM	WATER METER
DWY	DRIVEWAY	PL	PROPERTY LINE	WV	WATER VALVE
EG	EXISTING GROUND	PP	POWER POLE		
EP	EDGE OF PAVEMENT	PUE	PUBLIC UTILITY EASEMENT		

LEGEND

-------- ADA ACCESSIBLE PATH OF TRAVEL (POT)

THE PATH OF TRAVEL (POT) IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT HAVE BEEN IDENTIFIED; AND THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS.

No.	Date	Revisions Description	Approved

adobe associates, inc.
civil engineering | land surveying | wastewater
1220 N. Dutton Ave., Santa Rosa, CA 95401
P. (707) 541-2300 F. (707) 541-2301
Website: www.adobeinc.com
"A Service You Can Count On!"

For Review
07/13/2022 8:46:34 AM

David R. Brown, RCE 41833
My license expires 3/31/2024

SUN SQUARE
OVERALL SITE PLAN
421 & 425 Napa Junction Road
American Canyon, California
APN 059-020-003

SCALE: AS SHOWN
Date: June 22, 2022
Design by: IAL
Drawn by: IAL
Checked by: JR

Sheet
C1.0
1 of 5 Sheets
Job 21299

T:\2021 Projects\21299\dwg\adobe-design\Design Review\21299-C1.0_Overall Site Plan.dwg, Monica Zeldon, 7/12/2022 12:41:32 PM

Sun Square Mixed-Use Project Comments

Date * 01/06/2023

Name * Mary Robinett

Company

Email * [redacted]

Phone Number * [redacted]

Address *

Street Address

[redacted]

Address Line 2

City: American Canyon

State / Province / Region: Ca

Postal / Zip Code: 94503

Country: US

Comments *

If comments are being provided through the upload of a document, please indicate so.

When are the citizens of American Canyon going to see the awful traffic problem fixed?
When is the city going to stop building? When our our water bills going to be lowered?

File Upload

From: William He
To: [redacted]
Cc: Brent Cooper; Nicolle Hall
Subject: Sun Square Mixed Use Project
Date: Thursday, April 20, 2023 4:48:00 PM

Hi Mary,

Thank you for submitting comments regarding the Sun Square Mixed Use Project. During the project review period, staff received your comments stating:

"When are the citizens of American Canyon going to see the awful traffic problem fixed? When is the city going to stop building? When is our water bills going to be lowered?"

Staff reviewed your concerns and prepared some answers to your questions. Please see below.

1. Why does the City not fix the traffic problem before building more new development?

The city is working hard to address traffic issues in American Canyon. The Sun Square project will be required to pay a traffic impact fee, which all new development is required to pay prior to construction permits. This fee requires pays for expanding the roadway system, including a portion of funds to improve Highway 29. In addition, the Sun Square project will improve the roadway in front of their project with a curb, gutter, and new sidewalk.

Every year, the City Council adopts a 5-Year Capital Improvement Program (CIP). The CIP includes numerous physical improvements to city facilities in many categories, including roadways. The Planning Commission will review this list at the next meeting on April 27. Roadway improvements in the 5-Year CIP include the following:

- Green Island Road reconstruction and widening
- Wetlands Edge Court extension
- South Kelly Road/Highway 29 intersection widening
- Melvin Road traffic calming, sidewalk and storm drainage improvements
- Rancho Del Mar paving and utility improvements.

In 2022, the City made the following road improvements:

- Completed the missing Devlin Road link from the railroad bridge at Middletown Way to Green Island Road
- Crosswalk ramp improvements on Folland Drive, Corsicana Drive, Brophy Street, Kemp Lane, Kemp Way, Sheffield Way, and Folland Drive, Gold Valley Way at Tapestry Lane
- Enhanced pedestrian intersection on Donaldson Way at Shenandoah Drive and on Silver Oak Trail at White Oak Drive
- 8,600 feet of new Class II Bike Lanes on Donaldson Way, Shenandoah Drive, and Silver Oak Trail
- Enhanced crosswalk improvements on Elliott Drive and on Daniel Drive
- Installed 410 feet of sidewalk on Eucalyptus Drive
- Installed permanent traffic calming measures on Wetlands Edge, including speed cushions and curb bulb-outs

In 2022, the City completed the annual pavement resurfacing project that included paving, ADA

upgrades, bike lane, and/or crosswalk improvements at the following streets:

- American Canyon Road East (between Flosden Road & City Limits),
- Blanco Street,
- Brophy Street,
- Corsicana Drive,
- Commerce Boulevard,
- Donaldson Way East,
- Flosden Road at Daniel Drive,
- Folland Drive,
- Gold Valley Way & Tapestry Lane,
- Kemp Lane,
- Kemp Way,
- Sheffield Way,
- Shenandoah Drive, and
- Silver Oak Trail.

The annual pavement resurfacing project was funded by SB1/Gas Tax, Measure T, and ARPA Funding.

In 2023, six streets are planned for 1.5 miles of grind and overlay through Measure T Funding. Streets that will be rehabilitated are selected based on the Pavement Management Program, which considers public safety, underground utility needs, and available funding. To learn more about how these decisions are made or see the specific areas on the project list, visit CityofAmericanCanyon.org/Streets.

In 2022, the City adopted a Local Streets and Roads Safety Plan. You can view this plan on our website HERE.

Safe roadways begin with safe drivers, and that includes ourselves. Take the *We Love Safe Streets* traffic calming program resident pledge and safety program HERE.

Highway 29 is a chronically congested highway through American Canyon. Owned and operated by the State of California through Caltrans, the Napa Valley Transportation Agency (NVTA) is the authorized Napa County liaison with Caltrans. The NVTA, with funding support from the City of American Canyon, recently completed a Project Initiation Document (PID) to improve Highway 29 through American Canyon. This plan requires environmental review to evaluate two alternatives. Completion of this study is anticipated to provide access to federal funds for Highway 29 transit, operations, beautification, and pedestrian improvements. You can view the PID study documents at the NVTA website HERE.

2. Why does the City keep building housing? Why does the City continue to build affordable (low-income) housing?

Since 1969, California has required all city and county governments to adopt policies to accommodate each community's "fair share" of housing for all income groups. Known as the Regional Housing Needs Allocation (RHNA), jurisdictions like American Canyon must demonstrate they have sufficient land at appropriate densities and streamline development approvals to accommodate their fair share of new housing need in the San Francisco Bay Area region.

As we have all heard in the news, the Bay Area housing shortage grows more acute. In 2017 alone, the Governor signed 15 housing bills intended to require cities, like American Canyon to increase housing supply. Like all cities in California, American Canyon must comply with these laws in order

to qualify for a growing list of grant programs that are used to pay for roadway infrastructure and other programs.

In addition, if the City does not streamline housing approvals and accommodate housing for lower income residents, the State may take away the City's authority to regulate housing entirely. You can learn more about reasons for housing approvals in a short video on the Housing Element HERE.

3. When will our water bills be lowered?

The cost of water delivered to everyone's home is more than just the water itself. Every year, the dedicated, hardworking employees at the City's Water Operations Division help make civilized life possible by supplying approximately 2,600 acre-feet of water to its customers.

Each year, the Water Operation Division operates and maintains the potable water distribution system consists consisting of 82 miles of water mains, two booster pump stations, 831 fire hydrants and 2,080 valves, 80 backflow devices, coordinates with property owners on over 950 additional backflow devices, 56 recycled water connections on more than over 10 miles of pipe, 5,300 potable water connections, 5,700 metering devices, 3 potable water storage tanks, and 2 emergency water tie-ins and over 900 service calls.

Fortunately, residents and businesses help with our water supply too. In Year 2022, American Canyon residents and businesses conserved an 11% Total Potable Water Reduction compared to Year 2020. So far this year, everyone has collectively reduced water demand by roughly 81 acre-feet between January-March 2023, as compared to the water demand last year between January – March 2022. That is a savings of 26 million gallons of water! To learn more about water resources in American Canyon, visit our website HERE.

Even with an efficient, hardworking Water Operations staff and everyone conserving, lower income residents can find it difficult to pay for essential living expenses, such as potable water. Fortunately, lower income residents can take advantage of the Low-Income Household Water Assistance Program (LIHWAP). This federally funded program helps low-income households pay down their residential water or wastewater bills. Qualifying residents can call 1-800-233-4480 for more information or assistance. Visit csd.ca.gov/lihwap to apply online.

Regardless of income, residents that have difficulty paying their water bill can request an extension, arrangement or fee waiver. Please contact Utility Billing at (707) 647-4364.

If you have any additional questions regarding the Sun Square Mixed Use Project, feel free to contact me.

Kind regards,

William He, AICP
Senior Planner, Community Development Department
City of American Canyon | 4381 Broadway Street, Suite 201 | American Canyon, CA 94503
707 647 4337 | whe@cityofamericancanyon.org
www.cityofamericancanyon.org

Sun Square Mixed-Use Project Comments

Date * 01/07/2023

Name * Roxana Herhuay

Company

Email * [redacted]

Phone Number * [redacted]

Address *

Street Address

[redacted]

Address Line 2

City	State / Province / Region
American canyon	Ca
Postal / Zip Code	**Country**
94503	usa

Comments *

If comments are being provided through the upload of a document, please indicate so.

Enough building apartments and low income housing in American Canyon. This permit request should be denied. Make my voice be heard!

File Upload

From: William He
To: [redacted]
Cc: Brent Cooper; Nicolle Hall
Subject: Sun Square Mixed Use Project
Date: Thursday, April 20, 2023 4:52:00 PM

Hi Roxana,

Thank you for submitting comments regarding the Sun Square Mixed Use Project. During the project review period, staff received your comments stating:

"Enough building apartments and low income housing in American Canyon. This permit request should be denied. Make my voice be heard!"

Staff reviewed your concerns and prepared some answers to your questions. Please see below.

- **Why does the City keep building housing? Why does the City continue to build affordable (low-income) housing?**

Since 1969, California has required all city and county governments to adopt policies to accommodate each community's "fair share" of housing for all income groups. Known as the Regional Housing Needs Allocation (RHNA), jurisdictions like American Canyon must demonstrate they have sufficient land at appropriate densities and streamline development approvals to accommodate their fair share of new housing need in the San Francisco Bay Area region.

As we have all heard in the news, the Bay Area housing shortage grows more acute. In 2017 alone, the Governor signed 15 housing bills intended to require cities, like American Canyon to increase housing supply. Like all cities in California, American Canyon must comply with these laws in order to qualify for a growing list of grant programs that are used to pay for roadway infrastructure and other programs.

In addition, if the City does not streamline housing approvals and accommodate housing for lower income residents, the State may take away the City's authority to regulate housing entirely. You can learn more about reasons for housing approvals in a short video on the Housing Element HERE.

If you have any additional questions regarding the Sun Square Mixed Use Project, feel free to contact me.

Kind regards,

William He, AICP
Senior Planner, Community Development Department
City of American Canyon | 4381 Broadway Street, Suite 201 | American Canyon, CA 94503
707 647 4337 | whe@cityofamericancanyon.org
www.cityofamericancanyon.org

Sun Square Mixed-Use Project Comments

Date * 01/27/2023

Name * Cindy Lederer

Company

Email * [redacted]

Phone Number * [redacted]

Address *

Street Address

[redacted]

Address Line 2

City: American Canyon

State / Province / Region: California

Postal / Zip Code: 94503

Country: United States

Comments *

If comments are being provided through the upload of a document, please indicate so.

Sun Square Design Permit for Development of 20 Dwelling Units and Approximately 7,800 Square Feet of Office Space Located at 425 Napa Junction Rd (File no. PL21-0020)

As a 35 year resident of this community, I am so OPPOSED to any more apts and housing. NOW if this project is all office space I'm all for it. WHY, does the city keep building more housing, hotels and gas stations, when they should know that it will make our traffic issues worst than what they already are. City councils have been discussing the traffic problems for 35 years, but instead of trying to solve it, they make it worst with more housing.

File Upload

From: William He
To: [redacted]
Cc: Brent Cooper; Nicolle Hall
Subject: Sun Square Mixed Use Project
Date: Thursday, April 20, 2023 4:57:00 PM

Hi Cindy,

Thank you for submitting comments regarding the Sun Square Mixed Use Project. During the project review period, staff received your comments stating:

"As a 35 year resident of this community, I am so OPPOSED to any more apts and housing. NOW if this project is all office space I'm all for it. WHY, does the city keep building more housing, hotels and gas stations, when they should know that it will make our traffic issues worst than what they already are. City councils have been discussing the traffic problems for 35 years, but instead of trying to solve it, they make it worst with more housing."

Staff reviewed your concerns and prepared some answers to your questions. Please see below.

1. Why does the City not build more store fronts and restaurants?

In 2022, Bel King and Pasta D'Oro restaurants opened their doors. In May, the Planning Commission will resume its review of the Chicken Guy restaurant. The City has a variety of parcels, mostly along Highway 29 where new stores and restaurants are permitted.

There is a very strong link between new housing and more stores and restaurants because all restaurants need hungry customers. New housing brings more residents to American Canyon who become customers. According to Business.com, a new restaurant owner must consider 13 factors before deciding to open a restaurant. These include: understanding potential competitors, good location, a great menu, hours of operation, marketing, staffing, financial resources, health agency permitting, and target customers. Business.com is a website for business news and resource content focused on helping business owners launch, build, and expand their businesses. You can read their article on restaurant location criteria https://www.business.com/articles/7-things-to-consider-restaurant/

2. Why does the City not fix the traffic problem before building more new development?

The city is working hard to address traffic issues in American Canyon. The Sun Square project will be required to pay a traffic impact fee, which all new development is required to pay prior to construction permits. This fee requires pays for expanding the roadway system, including a portion of funds to improve Highway 29. In addition, the Sun Square project will improve the roadway in front of their project with a curb, gutter, and new sidewalk.

Every year, the City Council adopts a 5-Year Capital Improvement Program (CIP). The CIP includes numerous physical improvements to city facilities in many categories, including roadways. The Planning Commission will review this list at the next meeting on April 27. Roadway improvements in the 5-Year CIP include the following:

- Green Island Road reconstruction and widening

- Wetlands Edge Court extension
- South Kelly Road/Highway 29 intersection widening
- Melvin Road traffic calming, sidewalk and storm drainage improvements
- Rancho Del Mar paving and utility improvements.

In 2022, the City made the following road improvements:

- Completed the missing Devlin Road link from the railroad bridge at Middletown Way to Green Island Road
- Crosswalk ramp improvements on Folland Drive, Corsicana Drive, Brophy Street, Kemp Lane, Kemp Way, Sheffield Way, and Folland Drive, Gold Valley Way at Tapestry Lane
- Enhanced pedestrian intersection on Donaldson Way at Shenandoah Drive and on Silver Oak Trail at White Oak Drive
- 8,600 feet of new Class II Bike Lanes on Donaldson Way, Shenandoah Drive, and Silver Oak Trail
- Enhanced crosswalk improvements on Elliott Drive and on Daniel Drive
- Installed 410 feet of sidewalk on Eucalyptus Drive
- Installed permanent traffic calming measures on Wetlands Edge, including speed cushions and curb bulb-outs

In 2022, the City completed the annual pavement resurfacing project that included paving, ADA upgrades, bike lane, and/or crosswalk improvements at the following streets:

- American Canyon Road East (between Flosden Road & City Limits),
- Blanco Street,
- Brophy Street,
- Corsicana Drive,
- Commerce Boulevard,
- Donaldson Way East,
- Flosden Road at Daniel Drive,
- Folland Drive,
- Gold Valley Way & Tapestry Lane,
- Kemp Lane,
- Kemp Way,
- Sheffield Way,
- Shenandoah Drive, and
- Silver Oak Trail.

The annual pavement resurfacing project was funded by SB1/Gas Tax, Measure T, and ARPA Funding.

In 2023, six streets are planned for 1.5 miles of grind and overlay through Measure T Funding. Streets that will be rehabilitated are selected based on the Pavement Management Program, which considers public safety, underground utility needs, and available funding. To learn more about how these decisions are made or see the specific areas on the project list, visit CityofAmericanCanyon.org/Streets.

In 2022, the City adopted a Local Streets and Roads Safety Plan. You can view this plan on our website HERE.

Safe roadways begin with safe drivers, and that includes ourselves. Take the *We Love Safe Streets* traffic calming program resident pledge and safety program HERE.

Highway 29 is a chronically congested highway through American Canyon. Owned and operated by the State of California through Caltrans, the Napa Valley Transportation Agency (NVTA) is the authorized Napa County liaison with Caltrans. The NVTA, with funding support from the City of American Canyon, recently completed a Project Initiation Document (PID) to improve Highway 29 through American Canyon. This plan requires environmental review to evaluate two alternatives. Completion of this study is anticipated to provide access to federal funds for Highway 29 transit, operations, beautification, and pedestrian improvements. You can view the PID study documents at the NVTA website HERE.

If you have any additional questions regarding the Sun Square Mixed Use Project, feel free to contact me.

Kind regards,

William He, AICP
Senior Planner, Community Development Department
City of American Canyon | 4381 Broadway Street, Suite 201 | American Canyon, CA 94503
707 647 4337 | whe@cityofamericancanyon.org
www.cityofamericancanyon.org

Sun Square Mixed-Use Project Comments

Date * 03/03/2023

Name * Renee

Company

Email * [redacted]t

Phone Number * [redacted]

Please check all that apply *

- [x] I own a home in American Canyon
- [ ] I rent a home in American Canyon
- [ ] I own a business in American Canyon
- [ ] I work in American Canyon
- [ ] None of the above

Address *

Street Address

[redacted]

Address Line 2

City: American Canyon

State / Province / Region: CA

Postal / Zip Code: 94503

Country: USA

Comments *

If comments are being provided through the upload of a document, please indicate so.

We don't need office space in American Canyon. We need to fix the traffic, need more store fronts, restaurants, and we should build out what we have as far as housing construction.

File Upload

From: William He
To: [redacted]
Cc: Brent Cooper; Nicolle Hall
Subject: Sun Square Mixed Use Project
Date: Thursday, April 20, 2023 5:02:00 PM

Hi Renee,

Thank you for submitting comments regarding the Sun Square Mixed Use Project. During the project review period, staff received your comments stating:

"We don't need office space in American Canyon. We need to fix the traffic, need more store fronts, restaurants, and we should build out what we have as far as housing construction."

Staff reviewed your concerns and prepared some answers to your questions. Please see below.

1. Why does the City not fix the traffic problem before building more new development?

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If you have any additional questions regarding the Sun Square Mixed Use Project, feel free to contact me.

Kind regards,

William He, AICP
Senior Planner, Community Development Department
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www.cityofamericancanyon.org

TITLE

Paoli Watson Lane Annexation Draft Environmental Impact Report (DEIR) Public Review Workshop

RECOMMENDATION

Receive and file Paoli Watson Lane Annexation DEIR and provide written comments on its environmental findings and conclusions.

CONTACT

Brent Cooper, AICP, Community Development Director

BACKGROUND & ANALYSIS

The proposed Paoli/Watson Lane annexation is approximately 83-acres located in unincorporated Napa County within the City of American Canyon (City) Sphere of Influence (SOI). The project's regional location is shown in Attachment 1. The proposed annexation site is surrounded by City limits to the east, west, and south. Other uses include:

East: Future Watson Ranch and existing agricultural uses east of the Union Pacific Railroad (UPRR).
West: Paoli Loop Road and State Route (SR) 29. Industrial uses are located west of SR 29.
South: Union Pacific Railroad (UPRR) right-of-way and vacant mixed residential/commercial uses.
North: Former vineyard property in unincorporated Napa County.

The project location and surrounding jurisdictional boundaries are shown in Attachment 2.

The annexation area contains 17 assessor parcel numbers (APNs) and a portion of the Union Pacific Railroad (UPRR) right-of- way running approximately northeast by southwest at the eastern boundary of the annexation area. A map and table showing all parcels is included as Attachment 3. The annexation area contains a mix of undeveloped land, residential uses, outdoor storage, and UPRR right-of-way within the SOI of the City. Site photographs are included as Attachment 4.

Project Objectives

The objectives of the proposed project are to:

1. Promote economic growth in American Canyon by attracting new industries.
2. Promote development that that generates net positive tax revenues for the City by generating more in new tax revenues than are consumed by City expenditures on services provided to the

development.

3. Create new employment opportunities for residents of Napa County and the surrounding region.
4. Extend Newell Drive, which would augment north-south travel parallel to SR 29.
5. Improve American Canyon's jobs-housing ratio by adding new employment opportunities.
6. Further the goals and policies of the City of American Canyon General Plan by developing land contemplated to support urban development to its highest and best use.
7. Preserve the most biologically sensitive portions of the project site as open space.
8. Install circulation improvements along Paoli Loop and Watson Lane that provide efficient ingress and egress to the proposed project while also ensuring these facilities operate at acceptable levels.
9. Promote public safety by incorporating security measures into the project design.
10. Mitigate impacts on the environment through implementation of feasible mitigation measures.

Project Description

The annexation requires approval from the Napa County Local Agency Formation Commission (LAFCO). Prior to submitting an annexation application, several parcels are anticipated to be redesignated by the General Plan as part of this project. The list below identifies each proposed specific land use designation. Approximately 47 acres currently designated Agriculture would be changed to Industrial and Residential Estate (RE).

The City previously designated and pre-zoned 5.5 acres east of the UPRR in the northeast section as Town Center (TC). The TC designation and pre-zoning accommodates a variety of residential and commercial uses. This project does not propose to change the current TC General Plan designation and pre-zoning. This property is also anticipated to accommodate an extension of Newell Drive as described further in the EIR.

Approximately 28 acres designated RE would be pre-zoned as such, which would accommodate residences with a minimum lot size of one acre. These parcels are located off Watson Lane with existing residential uses. The RE pre-zoning is consistent with Napa County's current policy to not induce additional residential development beyond existing conditions because the area is located within Zone D of the Napa County Airport Land Use Compatibility Plan.

Approximately 34 acres designated as Industrial would be pre-zoned as Paoli Light Industrial (PLI), which would be a new zoning designation that accommodates existing and new light manufacturing uses, research and development, offices, or similar uses. The Industrial land west of the North Slough would be further pre-zoned with a PLI Commercial Overlay District. The Overlay District would accommodate industrial uses plus commercial and commercially-related uses that capitalize on vehicle access and visibility from SR 29.

Immediately west of the annexation area, four acres between SR 29 and Paoli Loop Road currently

zoned as Light Industrial (LI) would be rezoned as PLI with a Paoli Commercial Overlay District.

Existing and proposed General Plan and Zoning designations are shown in Attachment 5.

As described in Draft EIR Section 2.5.7, the EIR conservatively estimates that 80 percent of parcels pre-zoned for Paoli Light Industrial, Paoli Light Industrial with Paoli Commercial Overlay, and Town Center would be developed for commercial, industrial, and visitor-serving/hotel uses. The remaining 20 percent accounts for building setbacks, right-of-way for construction of the proposed Newell Drive extension, including an overcrossing at the railroad, and a biological resources buffer around North Slough.

Parcels pre-zoned for Residential Estate have existing residential uses and the application of the Residential Estate pre-zoning is to acknowledge these existing uses. The Residential Estate pre-zoning would not induce additional residential development beyond existing conditions. It is estimated that approximately 1,650 employees could be generated as a result of the estimated maximum buildout of the annexation area.

As described in Draft EIR Table 2-2 The development assumptions associated with the Project are listed in the table below:

Land Use	Additional Development (SqFt)
Commercial	494,942
Industrial	696,888
Visitor-Serving/Hotel	189,698

Draft EIR Review Process

Consistent with the California Environmental Quality Act (CEQA), the City has determined the proposed Paoli Watson Annexation project has the potential for significant environmental impacts. For this reason, an Environmental Impact Report (EIR) is required to fully describe and analyze those impacts.

On behalf of the City, Rincon Consultants prepared a Draft Environmental Impact Report (Draft EIR) (State Clearinghouse No. 2022090097). The Draft EIR provides a project-level analysis for the proposed project. The City of American Canyon is the lead agency and has discretionary authority over the proposed project and subsequent project approvals. The Draft EIR is intended to address all public infrastructure improvements and future development within the parameters of the proposed project.

Public comment on the Draft EIR is invited for a 45-day period from March 14, 2023 through April 28, 2023. During the public review period, the Draft EIR, including the technical appendices, is

available for review at the City of American Canyon Community Development Department office and the American Canyon Library. A copy of the Draft EIR is included as Attachment 8.

The Draft EIR and Appendices are available on the City's website at this address: **https://portal.laserfiche.com/Portal/DocView.aspx?id=88355&repo=r-f53bdda4**.

Comments can be submitted to the City at this address: **https://portal.laserfiche.com/f0791/forms/hkadg**.

Written comments by US mail may be sent to: **Sean Kennings, LAK Associates, P.O. Box 7043, Corte Madera, CA 94976**.

Email comments may be sent to Sean Kennings at **sean@lakassociates.com**.

Planning Commission Draft EIR Workshop

The Draft EIR workshop has been scheduled during the 45-day public review period to provide an opportunity for interested persons to become more familiar with the project and with the findings of the Draft EIR.

At the workshop, Rincon Consultants will review the Draft EIR findings and mitigations. The Commission invites questions and comments from the public and provides its own questions and comments about the project and the Draft EIR.

Please note that for accurate administrative record purposes, **oral comments received at the Planning Commission workshop will not be included in the Draft EIR**. To include comments in the Draft EIR, please provide written comments using the resources listed in this staff report.

At the end of the public review period, all public comments will be assembled and staff and the EIR consultant will prepare a written response to each comment. This document is called the Response to Comments (RTC). The Final EIR is made up of the Draft EIR together with the RTC. The RTC will be released at least ten days before the Planning Commission holds a public hearing on the Final EIR.

At a subsequent meeting, the Planning Commission will be requested whether to recommend the City Council certify the Final EIR as having adequately evaluated all required environmental considerations.

SUMMARY OF ENVIRONMENTAL IMPACTS

Environmental Issues Determined not to be Significant

The Draft EIR identifies topical areas that were determined not to be significant. An explanation of the reasons why each area is determined not to be significant is provided in Chapter 4.19, Effects

Found not to be Significant. These topical areas are as follows:

- Mineral Resources
- Public Services

Potentially Significant Environmental Issues

The Program EIR describes the reasonably foreseeable and potentially significant adverse effects of the project (both direct and indirect) and cumulative impacts when considered in conjunction with other related past, present, and reasonably foreseeable future projects for these topic areas.

• Aesthetics	• Greenhouse Gas Emissions	• Transportation
• Agriculture	• Hazards and Hazardous Materials	• Tribal Cultural Resources
• Air Quality	• Hydrology and Water Quality	• Utilities and Service Systems
• Biological Resources	• Land Use and Planning	• Wildfire
• Cultural Resources	• Noise	• Cumulative Effects
• Energy	• Population and Housing	• Growth Inducing Effects
• Geology and Soils	• Public Services and Recreation	

Summary of Mitigation Measures

CEQA Guidelines 15126.4(a) requires lead agencies to consider feasible mitigation measures to avoid or substantially reduce a project's significant environmental impacts. A table that identifies all proposed mitigation measures is included as Attachment 6.

Significant Unavoidable Adverse Impacts

The Draft EIR has concluded that the project does not result in any significant unavoidable impacts.

Summary of Project Alternatives

According to CEQA, an EIR must describe a reasonable range of alternatives to a proposed project that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the proposed project's significant effects. Additionally, a "No Project" alternative must be analyzed (Section 15126.6 of the CEQA Guidelines). The following alternatives are evaluated in this EIR:

- **Alternative 1:** No Project
- **Alternative 2**: At-Grade Newell Drive Crossing
- **Alternative 3**: Reduced Buildout
- **Alternative 4**: Watson Lane Reconfiguration

A comparison of the alternatives is included as Attachment 8. Listed below are the Project Alternatives for this Draft EIR:

Alternative 1: No Project

The No Project Alternative assumes that the project site is not annexed into the City of American Canyon and existing land uses and Napa County zoning and land use designations remain. Current uses on the sites would continue under this alternative. No additional development would be assumed on the project site nor within the city. In addition, the Newell Drive extension would not be constructed. This alternative would not accomplish any of the project objectives.

Alternative 2: At-Grade Newell Drive Crossing

Alternative 2 assumes that the Newell Drive extension would utilize an at-grade crossing instead of an overcrossing at the Union Pacific Railroad (UPRR) in the northeastern corner of the project site. An at-grade crossing would require approval from the California Public Utilities Commission pursuant to California Public Utilities Code Section 1201.

Buildout of Alternative 2 would occur with the same intensity and land uses as the Project Description. Alternative 2 would potentially increase the developable industrial and Town Center square footage because an at-grade crossing requires less area to construct than a railroad overcrossing, but the gain in development area would not be substantial and would not alter the programmatic analysis of this alternative. Therefore, there is no anticipated change in potential square footage for the project.

Alternative 2 would achieve all project objectives while reducing the intensity of construction required for an overcrossing as compared to an at-grade crossing. In addition, an at-grade railroad crossing would cost less than a grade-separated crossing which makes extending Newell Drive more feasible. However, an at-grade crossing would reduce the utility of Newell Drive by halting traffic during times of railroad use. Alternative 2 would accomplish all the project objectives.

Alternative 3: Reduced Buildout

Alternative 3 assumes that buildout would decrease from 80 percent of the project site area to 40 percent. Alternative 3 estimated maximum buildout would be reduced to 247,471 square feet commercial; 348,444 square feet industrial; and 94,849 square feet visitor-serving/hotel.

Alternative 3 would reduce environmental impacts due to reduced construction. Alternative 3 would generate fewer employees than the project (refer to Attachment 8 - Comparison of Alternatives). Alternative 3 would configure Newell Drive the same as the project (i.e., an overcrossing over the UPRR). Alternative 3 would accomplish all the project objectives but to a lesser extent than the project.

Alternative 4: Watson Lane Reconfiguration

Alternative 4 assumes that the Newell Drive extension would not extend north of Watson Lane, and that travelers would instead utilize Watson Lane and Paoli Loop Road for travel between Newell Drive and SR 29, and between Newell Drive and the planned extension of South Kelly Road. Alternative 4 would utilize an existing at-grade crossing of the UPRR tracks on Watson Lane instead

of a Newell Drive railroad overcrossing.

Under Alternative 4, the existing at-grade crossing on Watson Lane would be modernized to accommodate increased travel. Improvements would include expanding Watson Lane to meet City standards for a major collector street, consistent with the planned configuration for the proposed Newell Drive extension, which requires an 80-foot right-of-way width to accommodate two motor vehicle lanes (one per direction), bicycle lanes, sidewalks and landscape strips on both sides, with a raised center median. the approximate width of the right-of-way that would be anticipated along Watson Lane under Alternative 4, including a focused view of the at-grade crossing is depicted in Attachment 9.

Under existing conditions, the railroad tracks are approximately 8 feet higher than Watson Lane west of the tracks and approximately 2 feet higher than Watson Lane to the east of the tracks. As a result, drivers experience an abrupt roadway grade change as they approach the tracks. Alternative 4 would raise the Watson Lane roadway elevation at the railroad tracks to smooth out the abrupt roadway grade change. Additional safety improvements would include railroad crossing gates and flashers.

Development would occur with the same intensity and land uses as described in Chapter 2, Project Description, and buildout totals would remain unchanged. Like Alternative 2, Alternative 4 would potentially increase the total developable industrial and Town Center square footage, but the development area increase would not be substantial and would not alter the programmatic analysis of this alternative. Therefore, there is no anticipated change in potential square footage for the project.

Alternative 4 would not meet the objective of extending Newell Drive, but would achieve most of the other project objectives while reducing the intensity of construction required for an overcrossing as compared to an at-grade crossing.

Areas of Known Controversy

Pursuant to CEQA Guidelines Section 15123(b), a summary section must address areas of controversy known to the lead agency, including issues raised by agencies and the public, and it must also address issues to be resolved, including the choice among alternatives and whether or how to mitigate the significant effects.

A Notice of Preparation (NOP) for the proposed project was issued on September 7, 2022. The NOP describing the original concept for the project and issues to be addressed in the EIR was distributed to the State Clearinghouse, responsible agencies, and other interested parties for a 30-day public review period extending from September 7, 2022, through October 7, 2022. During the NOP review period, the EIR scoping process did not identify any areas of known controversy for the project.

Disagreement Among Experts

This Draft EIR contains substantial evidence to support all the conclusions presented herein. It is possible that there will be disagreement among various parties regarding these conclusions, although the City of American Canyon is not aware of any disputed conclusions at the time of this writing. Both the CEQA Guidelines and case law clearly provide standards for treating disagreement among experts. Where evidence and opinions conflict on an issue concerning the environment, and the lead agency knows of these controversies in advance, the EIR must acknowledge the controversies, summarize the conflicting opinions of the experts, and include sufficient information to allow the public and decision-makers to make an informed judgment about the environmental consequences of the proposed project.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Economic Development and Vitality: "Attract and expand diverse business and employment opportunities."

FISCAL IMPACT

Costs associated with preparing technical reports and staff review are borne by the City with applicant reimbursement at the time of development.

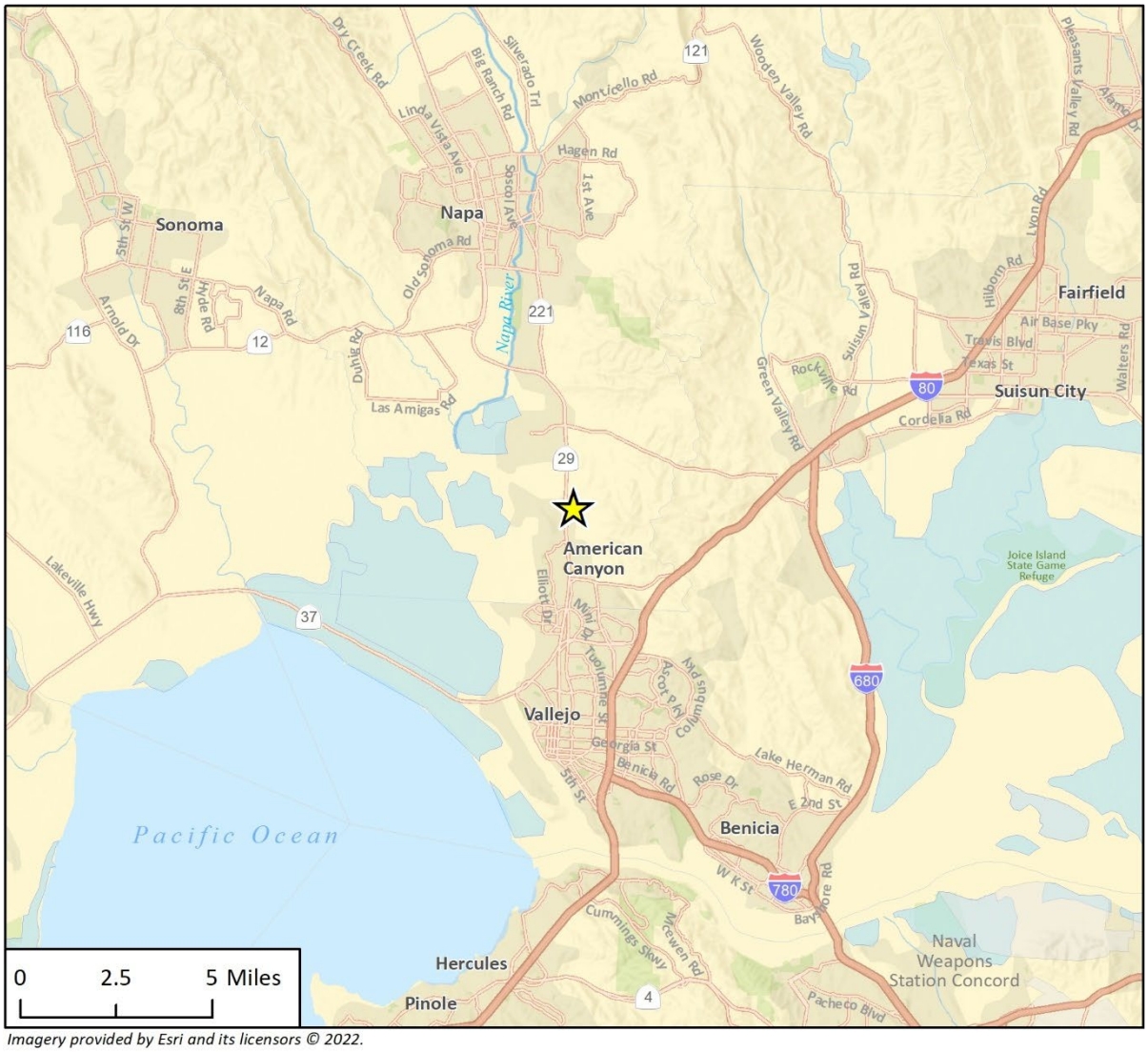
ENVIRONMENTAL REVIEW

Consistent with the California Environmental Quality Act (CEQA), an Environmental Impact Report (EIR) was prepared for the proposed Paoli Watson Annexation project to fully describe and analyze environmental impacts (State Clearinghouse No. 2022090097).

ATTACHMENTS:

1. Regional Location
2. Project Location Map
3. Parcels Subject to the Annexation
4. Site Photographs
5. Existing and Proposed General Plan and Zoning
6. Proposed Newell Drive Extension
7. Summary of Mitigation Measures
8. Comparison of Alternatves
9. Alternative 4 Roadway Configuration
10. Paoli Watson Lane AX Draft EIR

Figure 2-1 Regional Location



Imagery provided by Esri and its licensors © 2022.

Project Location

N

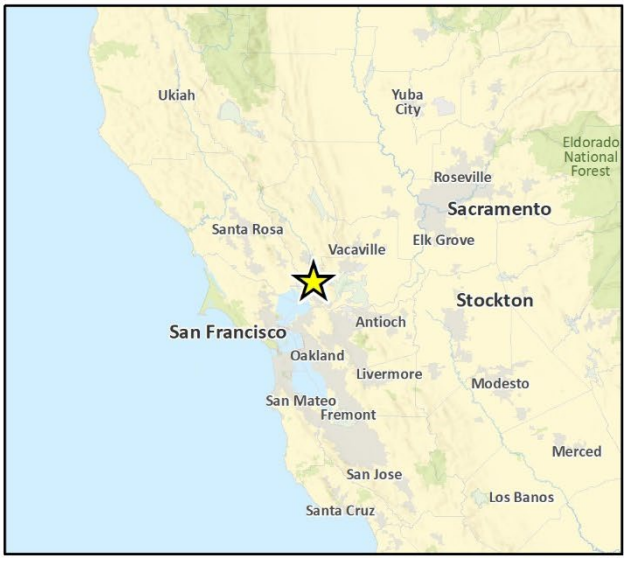


Figure 2-2 Project Site Location



Imagery provided by Microsoft Bing and its licensors © 2022.
Additional data provided by County of Napa, 2022.

Figure 2-3 Parcel Map

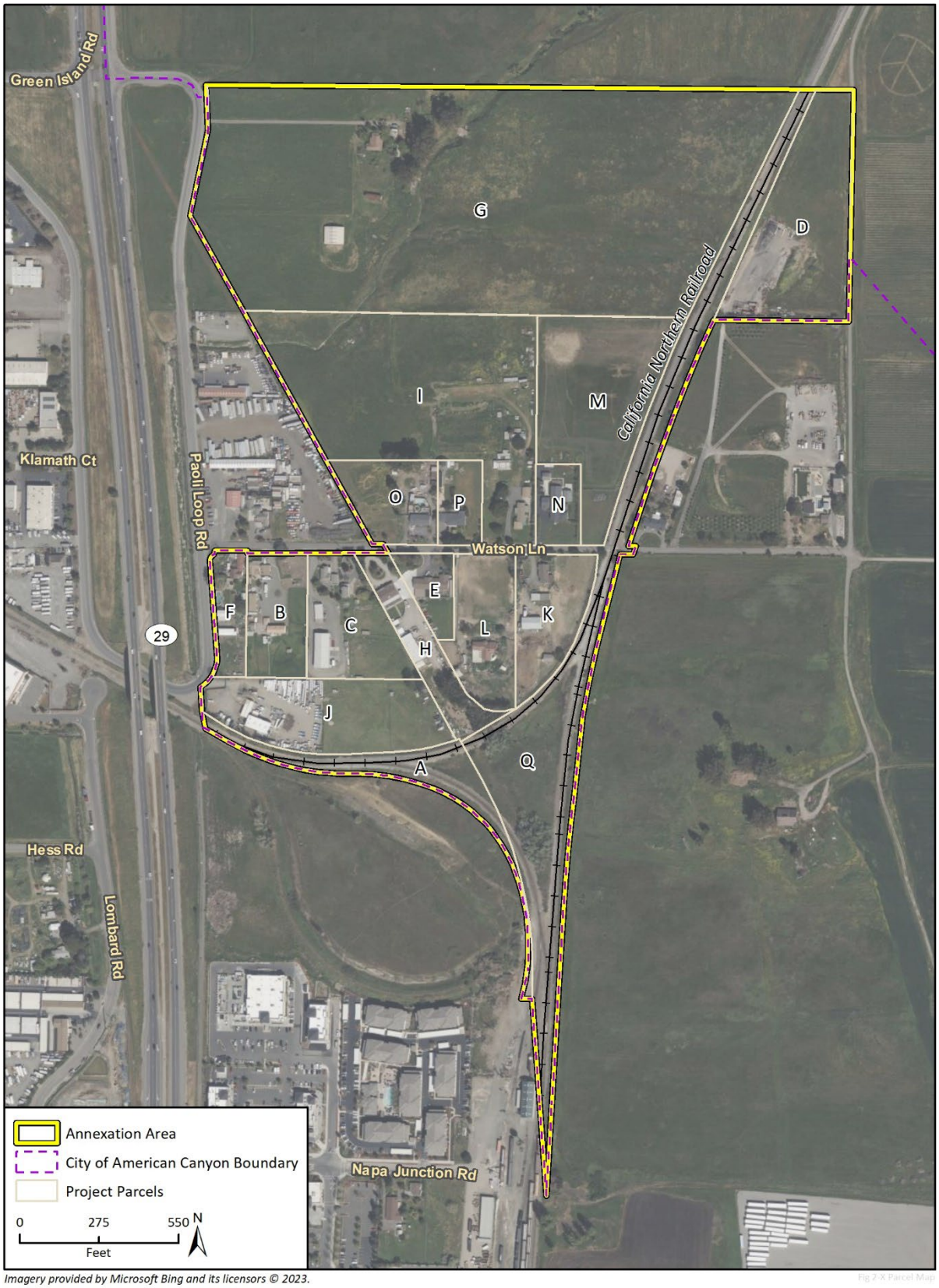
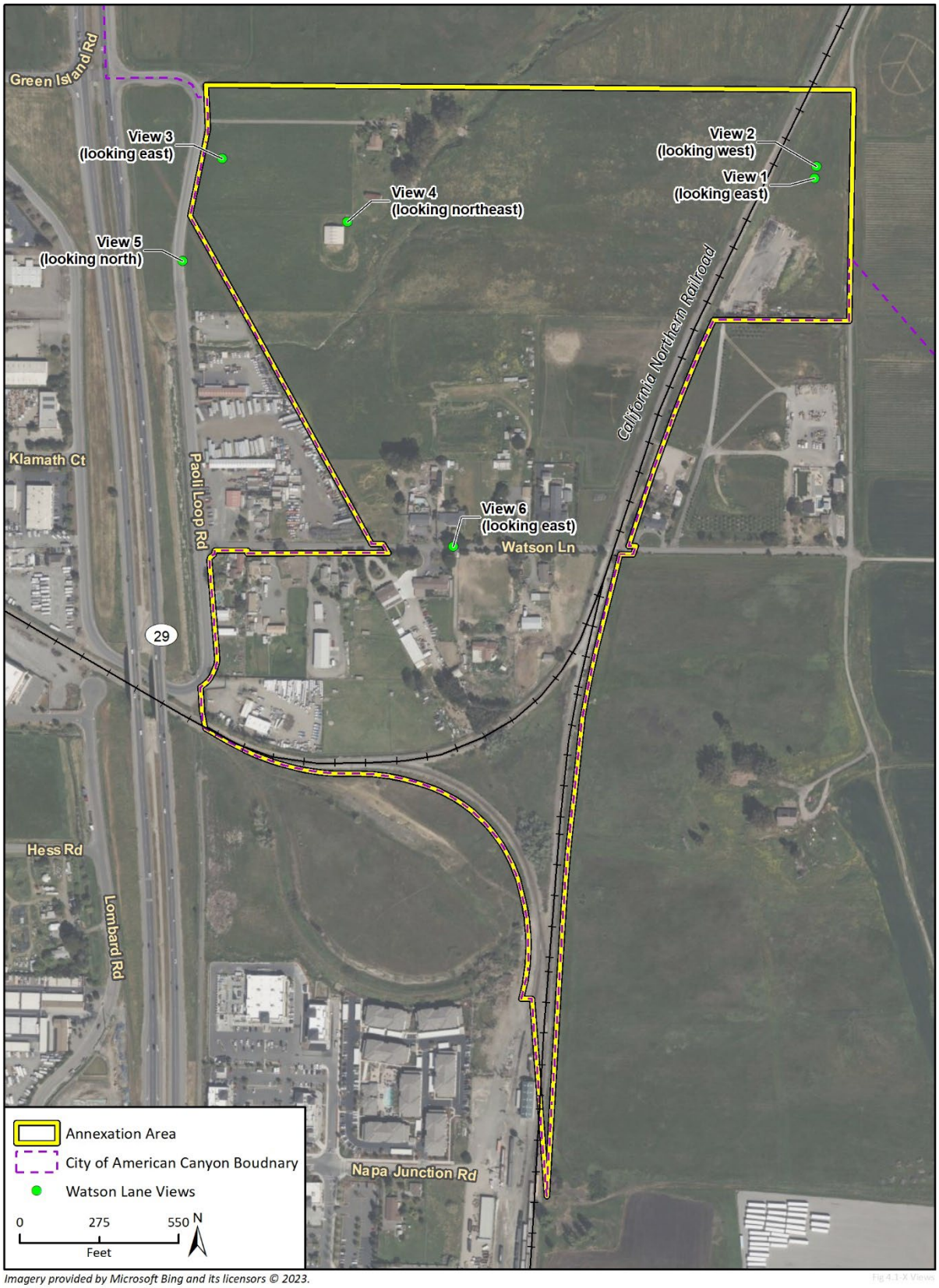


Figure 4.1-1 Viewpoint Locations



Imagery provided by Microsoft Bing and its licensors © 2023.

Figure 4.1-2 View looking east from the northeastern corner of the project site



Source: Rincon Consultants 2022

Figure 4.1-3 View looking west from the northeastern corner of the project site



Source: Rincon Consultants 2022

Figure 4.1-4 and Figure 4.1-5 show a closer view of the structures located on the project site. Figure 4.1-6 show views from the northwestern corner of the project site, looking north towards the hills. Figure 4.1-7 shows the views from Watson Lane, which is characterized with views of trees and single-story residences. As depicted in Figures 4.1-1 through 4.1-6, the views from the project site are characterized as undeveloped grassland areas. Of note are the views of hills to the east and north of the project site.

Figure 4.1-4 View looking east from the north central portion of the project site



Source: Rincon Consultants 2022

Figure 4.1-5 View of structures located in the north central portion of the project site



Source: Rincon Consultants 2022

Figure 4.1-6 View looking north on Paoli Loop Road on the northwestern corner of the project site



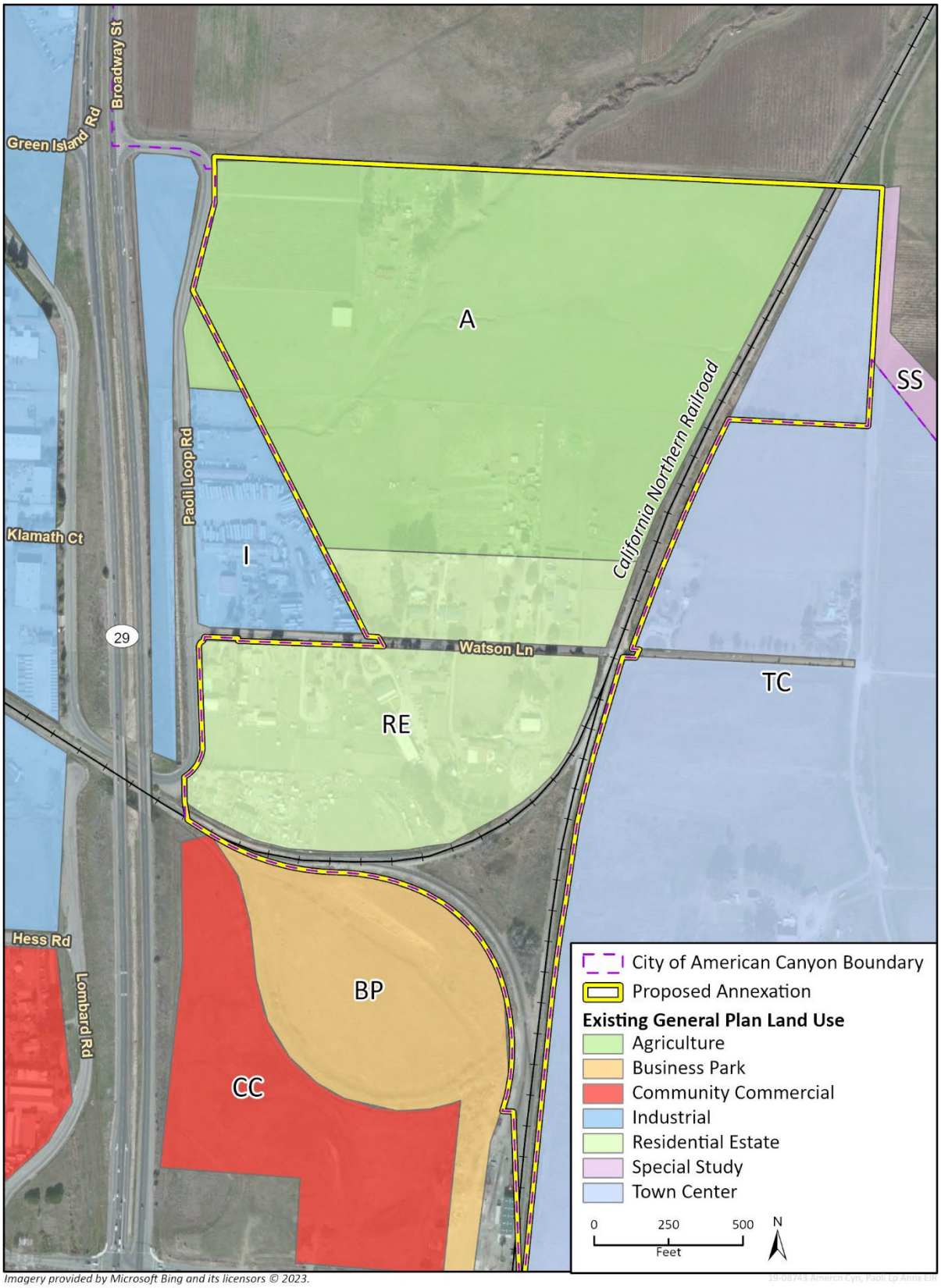
Source: Rincon Consultants 2019

Figure 4.1-7 View looking east on Watson Lane



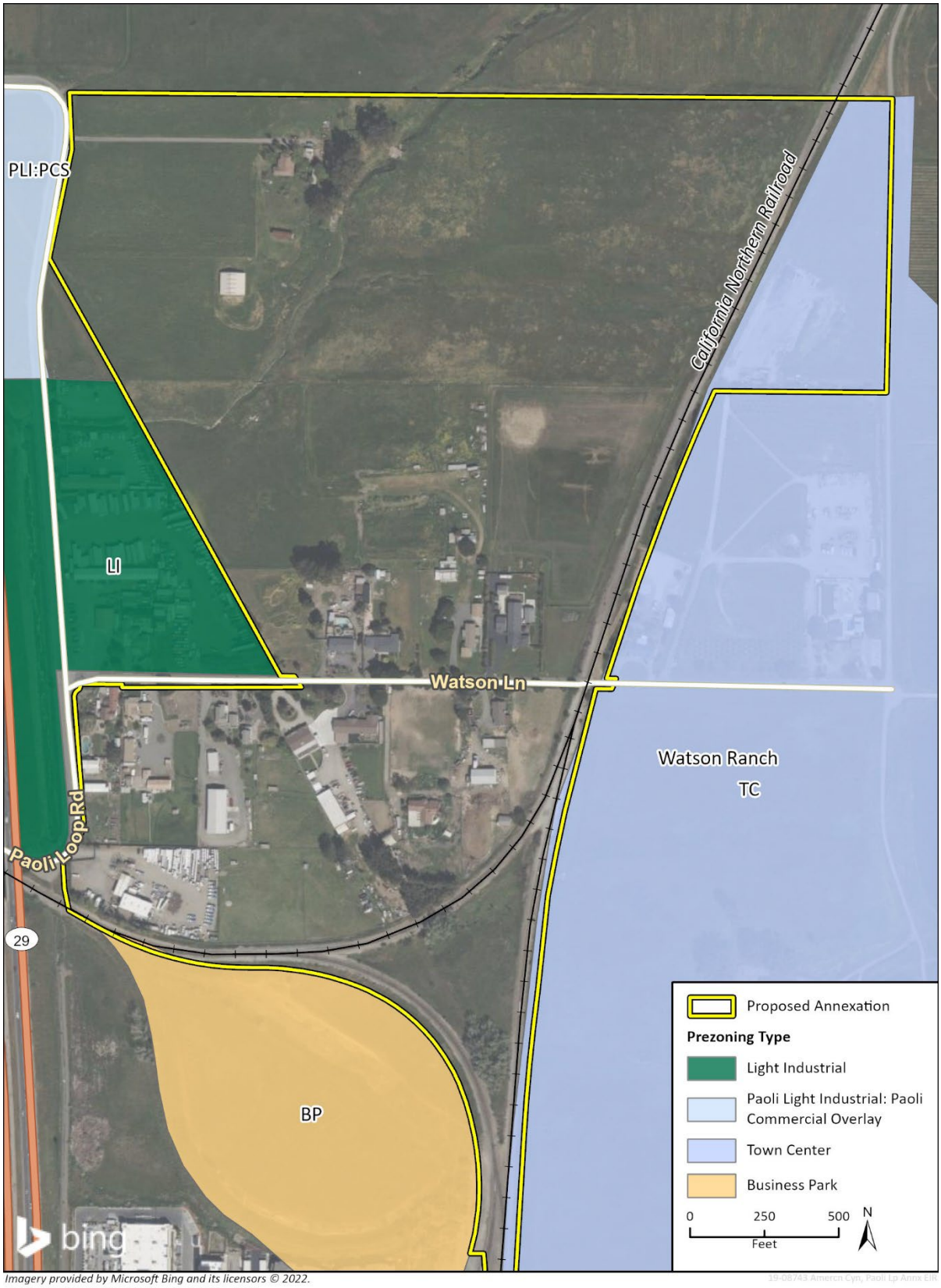
Source: Rincon Consultants 2022

Figure 2-4 Existing City of American Canyon Land Use Designations



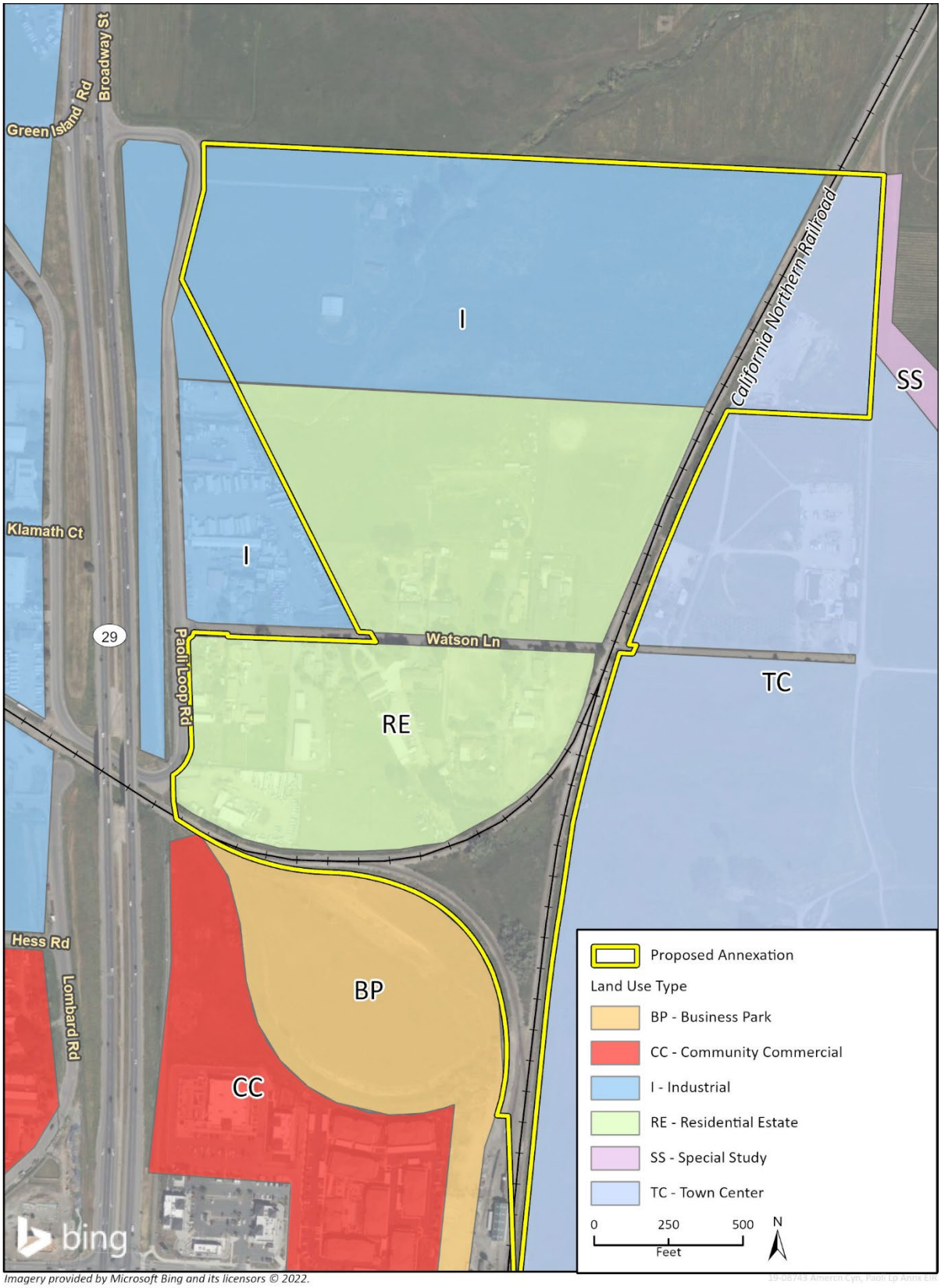
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Additional data provided by County of Napa, 2022.

Figure 2-5 Exisiting City of American Canyon Pre-Zoning



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Additional data provided by County of Napa, 2022.

Figure 2-6 Proposed City of American Canyon Land Use Designations



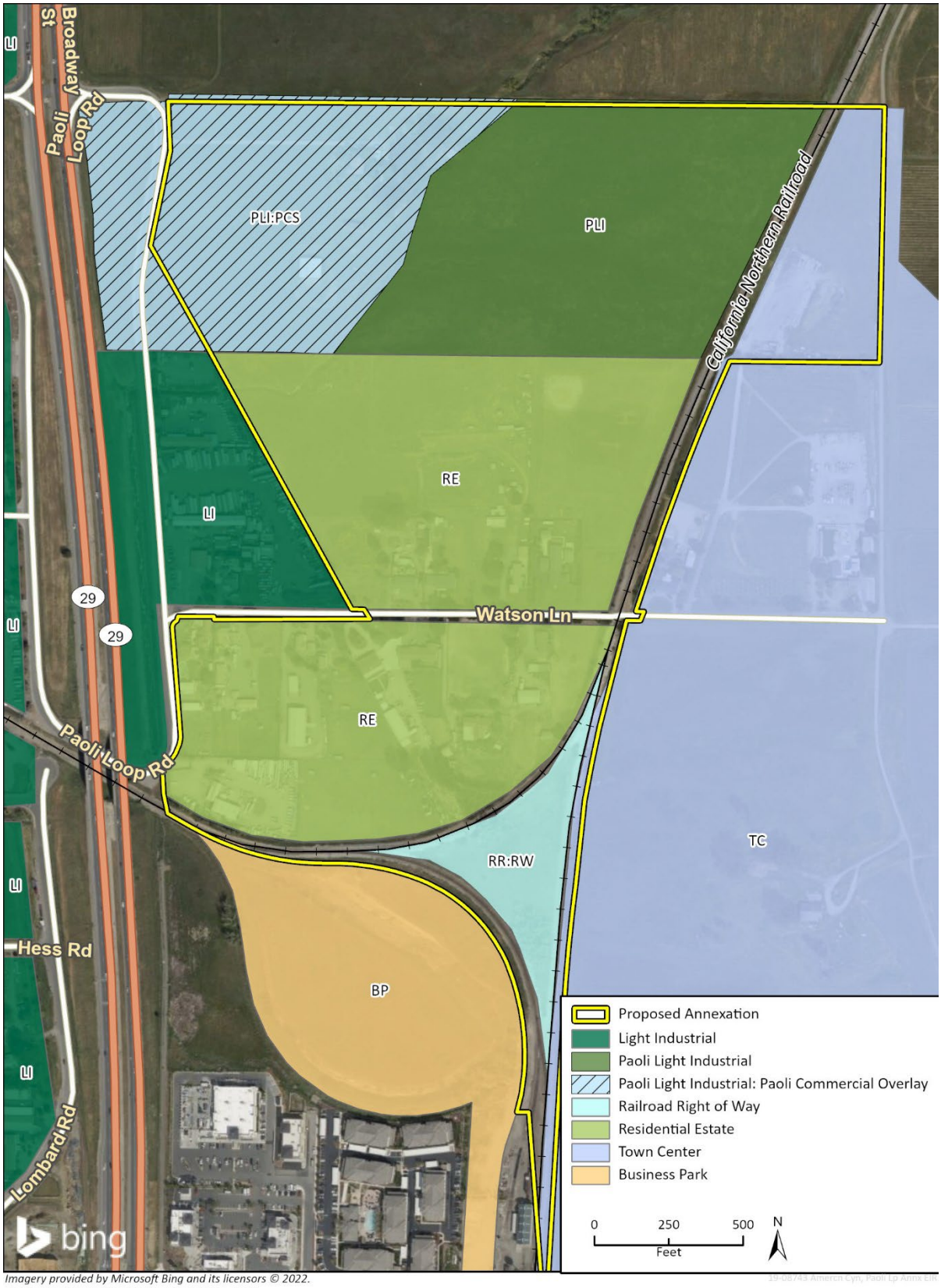
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Additional data provided by County of Napa, 2022.

Proposed Pre-Zoning

The land designated as Residential Estate would be pre-zoned as such, which would allow residences with a minimum lot size of 1 acre. The land designated as Industrial would be pre-zoned as Paoli Light Industrial, which would be a new zoning designation that accommodates existing and new light manufacturing uses, research and development, offices, or similar uses. The Industrial land west of the North Slough would also be pre-zoned with a Paoli Commercial Overlay District, which would allow commercial and commercially-related uses that capitalize on vehicle access and visibility. Outside the annexation area, the land between SR 29 and Paoli Loop Road currently zoned as Light Industrial would be rezoned as Paoli Light Industrial with a Paoli Commercial Overlay District. No change is proposed to the existing Town Center pre-zoning for the parcel east of the UPRR. The proposed pre-zoning is shown in Figure 2-7. No parcel subdivisions are proposed at this time. Pre-zoning would include the following building design elements that ensure new industrial development is aesthetically pleasing.

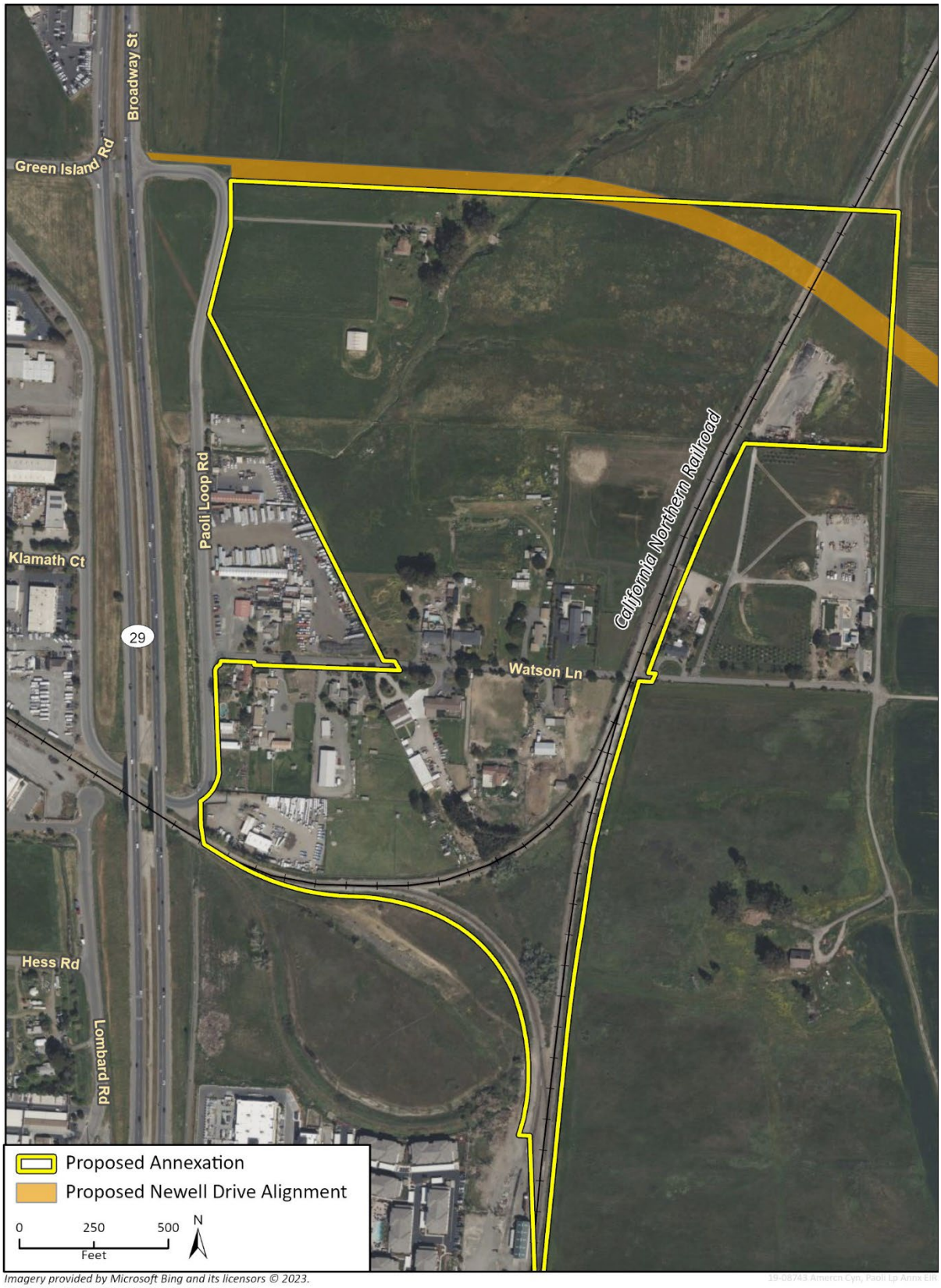
- 19.14.100 Building Design (All Industrial Districts).
  - A. Achieve high quality development design and existing use compatibility following design features:
    - a. Architectural treatment of all building elevations.
    - b. Extensive use of landscape along the primary street frontages and parking lots.
    - c. Enclose storage areas visible from principal highways (including Highway 29) and peripheral residential and commercial districts with decorative screening or other elements.
    - d. Screen rooftop mechanical equipment with a parapet or roof screen equal in height to the mechanical equipment.
  - B. Require that industrial areas developed as research and development and office-oriented business parks be designed to convey a unified character by consideration of the following:
    - a. Interconnect individual buildings with pedestrian walkways, arcades, and/or other visual elements.
    - b. Differentiate building facades with materials, color, architectural details and building elevation articulation.
    - c. Incorporate extensive landscape in parking areas, along building frontages, and other public areas.
    - d. Use consistent and well-designed public and informational signage.
    - e. Installation of elements (or install elements) that define key entry points into the industrial district.

Figure 2-7 Proposed City of American Canyon Pre-Zoning



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Additional data provided by County of Napa, 2022.

Figure 2-8 Proposed Newell Drive Alignment



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Additional data provided by County of Napa, 2022.

Table ES-1 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measure (s)	Residual Impact
Aesthetics		
Impact AES-1: The project would not have a substantial adverse effect on a scenic vista, including views of hills, and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact AES-2: The City of American Canyon does not have a designated state scenic highway and the project would not damage scenic resources within a state scenic highway. No impact would occur.	No mitigation measures would be required.	No Impact
Impact AES-3: The project is in an urbanized area and would not conflict with applicable zoning or General Plan policies governing scenic quality. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact AES-4: Construction and operation of future development facilitated by the project could create new sources of light or glare that could adversely affect the visual environment. Impacts would be less than significant with mitigation measures incorporated.	*AES-1 Construction Lighting Plan* Prior to nighttime construction, if needed for a particular project, project applicants shall submit a construction lighting plan to the City for review and approval. The construction lighting plan shall ensure that the minimum amount of lighting is used to meet safety requirements and ensure no spillover occurs to nearby sensitive uses. All lighting shall be directed downward and away from surrounding land uses. *AES-2 Operational Lighting Plan* Prior to discretionary project approval, the project applicant shall prepare and submit a photometric plan to the City for review and approval which demonstrates that all exterior light fixtures will be directed downward or employ full cut-off fixtures to prevent light spillage. The approved plan shall be incorporated into the project design plans.	Less than Significant
Agricultural and Forestry Resources		
Impact AG-1: The project would not convert Farmland, as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program, to non-agricultural use. No impact would occur.	No mitigation measures would be required.	No Impact

Impact	Mitigation Measure (s)	Residual Impact
Impact AG-2: The project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.	No mitigation measures would be required.	No Impact
Impact AG-3: The project would not conflict with existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned Timberland Production, or result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.	No mitigation measures would be required.	No Impact
Impact AG-4: The project would not involve other changes in the existing environment and would not result in the conversion of farmland or forestland to non-agricultural use or non-forest use. No impact would occur.	No mitigation measures would be required.	No Impact
Air Quality		
Impact AQ-1: The project would be consistent with the BAAQMD's 2017 Clean Air Plan. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact AQ-2: The project would not result in a cumulatively considerable net increase of operational criteria pollutants. Impacts from construction would be less than significant with mitigation. Impacts from operation would be less than significant.	*AQ-1 Implement BAAQMD Basic Construction Mitigation Measures* To reduce fugitive dust emissions from the construction of individual projects, the applicant shall implement the BAAQMD Basic Construction Mitigation Measures. The BAAQMD Basic Construction Mitigation Measures are listed below: ▪ All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times a 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. ▪ 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.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	▪ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points. ▪ All construction equipment shall be maintained and properly tuned in accordance with manufacture's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper conditions prior to operation. ▪ Post a publicly visible sign with the telephone number and person to contact at the City of American Canyon regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's number shall also be visible to ensure compliance with applicable regulations.	
Impact AQ-3: Construction activities for future individual projects lasting longer than two months or located within 1,000 feet of sensitive receptors could expose sensitive receptors to substantial pollutant concentrations. Implementation of the project may also expose sensitive receptors to operational sources of toxic air contaminants. Impacts would be less than significant with mitigation.	*AQ-2 Conduct Construction Health Risk Assessment* Prior to issuance of a grading or building permit, whichever occurs first, the applicant shall submit to the City a construction health risk assessment (HRA) in accordance with BAAQMD recommendations for any development project (including the proposed Newell Drive extension) that has at least one the following characteristics: ▪ The project is located within 1,000 feet of sensitive receptors. ▪ Project construction would last longer than two months. ▪ Project construction would not utilize equipment rated USEPA Tier 4 (for equipment of 50 horsepower or more); construction equipment fitted with Level 3 Diesel Particulate Filters (for all equipment of 50 horsepower or more); or alternative fuel construction equipment. If the HRA determines that construction will exceed BAAQMD significance thresholds, the HRA shall provide mitigation measures to reduce the impact to less than significant, including but not limited to requiring the use of Tier 4 engines, Level 3 Diesel Particulate Filters, and/or alternative fuel construction equipment. *AQ-3 Conduct Operational Health Risk Assessment* Prior to submittal of a subsequent discretionary development permit application for industrial, warehousing, or commercial land uses that would generate at least 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day, the applicant shall submit an operational health risk assessment (HRA) or submit proof that an HRA is not required in accordance with BAAQMD thresholds. If required, the operational HRA shall be prepared in accordance with the Office of Environmental Health Hazard Assessment and BAAQMD requirements, and mitigated to an acceptable level. Typical measures to reduce risk impacts may include, but are not limited to: ▪ Restricting idling on-site beyond Air Toxic Control Measures idling restrictions, as feasible. ▪ Electrifying warehousing docks. ▪ Truck Electric Vehicle (EV) Capable trailer spaces.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	▪ Requiring use of newer equipment and/or vehicles. ▪ Restricting off-site truck travel through the creation of truck routes. The operational HRA shall be provided to the City for review and concurrence prior to project approval.	
Impact AQ-4: The project would not create objectionable odors that could adversely affect a substantial number of people. Impacts related to odors would be less than significant.	No mitigation measures would be required.	Less than Significant
Biological Resources		
Impact BIO-1: The project may result in direct or indirect impacts to special-status species, their associated habitats, and nesting birds. This impact would be less than significant with mitigation.	*BIO-1 Site-Specific Biological Resources Assessment* The City shall implement the following measures during environmental review of future development within the project site. On a project-by-project basis, a preliminary biological resource screening shall be performed to determine whether a specific project has the potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) or similar type of study to document the existing biological resources within the project footprint plus an appropriate buffer determined by a qualified biologist and to determine the potential impacts to those resources. The BRA shall evaluate the potential for impacts to all sensitive biological resources including, but not limited to special-status species, nesting birds, wildlife movement, sensitive plant communities/critical habitat and other resources judged to be sensitive by local, state, and/or federal agencies. Pending the results of the BRA, design alterations, further technical studies (i.e., protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be necessary. The City shall review and approve the BRA prior to project approval. *BIO-2 Pre-construction Surveys for Swainson's Hawk, Other Raptors and Nesting Birds* Ground disturbance and vegetation removal activities shall be restricted to the non-breeding season (September 16 to January 31), when feasible. If construction activities occur during the nesting bird season (February 1 to September 15), the following mitigation measures are recommended to reduce impacts to Swainson's hawk, protected raptor species, and other nesting birds protected by the MBTA and CFGC. A qualified biologist shall conduct surveys for Swainson's hawk between January 1 and March 20. A preconstruction survey for other raptors and nesting birds shall be conducted no more than seven days prior to initiation of ground disturbance and vegetation removal. The survey shall be conducted within the project site and include a 150-foot buffer for passerines, 500-foot buffer for other raptors, and 0.5 mile buffer for active Swainson's hawk nests. The surveys shall be conducted by a biologist familiar with the identification of avian species known to occur in the region. It is recommended that surveys follow the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	Hawk Nesting Surveys in California's Central Valley. If a Swainson's hawk or white-tailed kite nest is found, the biologist shall set up appropriate buffers in consultation with CDFW. If the nesting bird survey results are negative, no further action is required. If nests are found, the biologist shall determine and demarcate an appropriate avoidance buffer with high visibility material. For Swainson's hawk nests, the biologist shall establish an avoidance buffer of up to 0.5 mile based on the nest location in relation to the construction activity, the line-of-sight from the nest to the construction activity, and observed hawk behavior at the nest. The qualified biologist shall notify all construction personnel of the buffer zones and to avoid entering buffer zones during the nesting season. No ground disturbing activities shall occur within the buffer until the biologist has confirmed that breeding/nesting is complete, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the biologist. Results of the preconstruction nesting bird survey shall be submitted to the City in a brief letter report no more than 30 days after completion of the survey. *BIO-3 Pre-construction Surveys for Western Burrowing Owl* Prior to ground disturbance activities, a qualified biologist shall conduct pre-construction clearance surveys within suitable natural habitats and ruderal areas throughout the project site, to confirm the presence/absence of active western burrowing owl burrows. The surveys shall be consistent with the recommended survey methodology provided by CDFW's Staff Report on Burrowing Owl Mitigation. Clearance surveys shall be conducted within 30 days prior to construction and ground disturbance activities. If no western burrowing owls are observed, no further actions are required. If western burrowing owls are detected during the pre-construction clearance surveys, the following measures shall apply: ▪ Avoidance buffers during the breeding and non-breeding season shall be implemented in accordance with the CDFW's Staff Report on Burrowing Owl Mitigation minimization mitigation measures. ▪ If avoidance of western burrowing owls is not feasible, then additional measures such as passive relocation during the nonbreeding season and construction buffers of 200 feet during the breeding season shall be implemented, in consultation with CDFW. In addition, a Western Burrowing Owl Exclusion Plan and Mitigation and Monitoring Plan shall be developed by a qualified biologist in accordance with the CDFW (2012) and Burrowing Owl Consortium (1993). Project applicants shall submit evidence of clearance surveys, avoidance buffers or additional measures to the City as required. *BIO-4 Worker Environmental Awareness Program* Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend Worker Environmental Awareness Program training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the project site. The program shall include identification of the sensitive species and habitats, a description of the regulatory	

Impact	Mitigation Measure (s)	Residual Impact
	status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All employees shall sign a form documenting attendance at the Worker Environmental Awareness Program and that they understand the information presented to them. The form shall be submitted to the City to document compliance.	
Impact BIO-2: No riparian habitat or sensitive natural communities are present in the project site. No impact would occur.	No mitigation measures would be required.	Less than Significant
Impact BIO-3: Implementation of the project may result in impacts to state or federally protected waters. This impact would be less than significant with mitigation.	*BIO-5 Aquatic Resources Delineation* A qualified biologist shall complete an aquatic resources delineation survey that establishes the extent of the waters of the U.S. and State and identify the potential jurisdictional limits of USACE, RWQCB, and CDFW. The delineation shall be conducted in accordance with the requirement set forth by each agency and the results presented in a report that shall be submitted to the City, USACE, RWQCB, and CDFW, as appropriate, for review and approval. If the USACE asserts its authority, then a permit pursuant to Section 404 of the CWA would be required. If jurisdictional areas are expected to be impacted, then the RWQCB would require a Section 401 Water Quality Certification and/or Waste Discharge Requirement permit (depending upon whether the feature falls under federal jurisdiction or not). If CDFW asserts its jurisdictional authority, then a Lake or Streambed Alteration Agreement pursuant to Section 1600 et seq. of the CFGC would also be required prior to construction within the areas of CDFW jurisdiction. *BIO-6 General Avoidance and Minimization* Development shall be designed to avoid potentially jurisdictional features identified in aquatic resources delineation reports (Mitigation Measure BIO-4), to the extent feasible. No development shall occur within 50 feet of the top of bank for North Slough. Projects with potentially jurisdictional features shall provide the City with a report detailing how all identified aquatic features will be avoided, including groundwater draw down, prior to project approval. *BIO-7 Restoration for Impacts to Waters and Wetlands* If the project cannot be designed to avoid impacts to waters and wetlands (as described in Mitigation Measure BIO-6), then impacts shall be fully mitigated at an appropriate ratio, as determined by a qualified biologist and in accordance with regulatory agency requirements. Mitigation can be achieved through the setting aside or acquisition and in-perpetuity management of similar habitat on-site (this can include restoration of jurisdictional features within the project site) or as close to the impact habitat as possible. Mitigation lands must be placed into a conservation easement or other covenant restricting future development. A mitigation and monitoring plan consistent with regulatory agency requirements shall be developed by a qualified biologist and submittal to the regulatory agency overseeing the project for	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	approval. Alternatively, mitigation shall be accomplished through purchase of credits from an approved mitigation bank. Mitigation lands or in lieu funding sufficient to acquire lands should provide habitat at a minimum 1:1 ratio for impacted lands, comparable to habitat to be impacted by individual project activity. The City shall review and approve the plan before submittal to the agencies.	
Impact BIO-4: Implementation of the project would not substantially impede the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors after the implementation of Mitigation Measure BIO-6. This impact would be less than significant with mitigation.	Mitigation Measure BIO-6 (see Impact BIO-3).	Less than Significant
Impact BIO-5: Implementation of the project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. However, this impact would be less than significant with mitigation.	Mitigation Measures BIO-5, BIO-6, and BIO-7 (see Impact BIO-3).	Less than Significant
Impact BIO-6: Implementation of the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. No impact would occur.	No mitigation measures would be required	No Impact
Cultural Resources		
Impact CUL-1: The project could adversely affect previously unidentified historic-period resources. Impacts to historic-period resources would be less than significant with mitigation.	*CUL-1 Historical Built Environment* Prior to project approval, the applicant shall submit a report to the City that identifies any historic-age features (i.e., structures over 45 years of age) proposed to be altered or demolished. If historical-age features are present, the applicant shall submit a historical resources evaluation to the City prepared in areas that contains buildings, structures, objects, sites, landscape/site plans, or other features that are 45 years of age or older, by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards (PQS) in architectural history or history (36 CFR Part 61). The evaluation shall include an intensive-level evaluation, in accordance with the guidelines and best practices meeting the State Office of Historic Preservation guidelines. All evaluated properties shall be documented	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	on Department of Parks and Recreation Series 523 Forms. The report shall be submitted to the City for review and approval. If historical resources are identified through the survey and evaluation, efforts shall be made by the applicant to ensure that the relocation, rehabilitation, or alteration of the resource is consistent with the Secretary of the Interior's Standards for the Treatments of Historic Properties (Standards). The applicant shall submit a report to the City that identifies and specifies the treatment of character-defining features and construction activities, and demonstrates how the project complies with the Standards and avoids the substantial adverse change in the significance of the historical resource as defined by CEQA Guidelines Section 15064.5(b). The report shall be prepared by an architectural historian or historical architect meeting the PQS as defined by 36 CFR Part 61 and provided to the City for review and concurrence prior to project approval.	
Impact CUL-2: The project could adversely affect previously unidentified archaeological resources. Impacts would be less than significant with mitigation.	*CUL-2 Archaeological Resources Assessment* Prior to submittal of any discretionary development application that involves ground disturbance activities (that may include but are not limited to, pavement removal, potholing, grubbing, tree removal, and grading), the applicant shall submit an archaeological resources assessment prepared by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in either prehistoric or historic archaeology. Assessments shall include a CHRIS records search at the NWIC and a SLF Search from the NAHC. The records searches shall characterize the results of previous cultural resource surveys and disclose any cultural resources that have been recorded and/or evaluated in and around the development site. If the assessment begins on or before 2027, the results of the NWIC and SLF search for this EIR can be summarized as part of the assessment. A Phase I pedestrian survey shall be undertaken in future project areas that are undeveloped to locate any surface cultural materials. By performing a records search, a SLF search, and a Phase I survey, a qualified archaeologist shall be able to classify the future project area as having high, medium, or low sensitivity for archaeological resources. If the Phase I archaeological survey identifies resources that may be affected by the future project, the archaeological resources assessment shall also include Phase II testing and evaluation. If resources are determined significant or unique through Phase II testing and site avoidance is not possible, appropriate site-specific mitigation measures shall be identified in the Phase II evaluation. These measures may include, but would not be limited to, a Phase III data recovery program, avoidance, or other appropriate actions to be determined by a qualified archaeologist. If significant archaeological resources cannot be avoided, impacts may be reduced to less than significant level by filling on top of the sites rather than cutting into the cultural deposits. Alternatively, and/or in addition, a data collection program may be warranted, including mapping the location of artifacts, surface collection of artifacts, or excavation of the cultural deposit, to characterize the nature of the buried portions of sites. Curation of the excavated artifacts or samples would occur as specified by the archaeologist. The archaeological resources assessment shall be reviewed and approved by the City prior to project approval.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	CUL-3 Unanticipated Discoveries An Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology shall be present on-site during all earth disturbing activities. If cultural resources are encountered during ground-disturbing activities, work within 100 feet of the area shall be halted and the contractor shall contact an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology in either prehistoric or historic archaeology immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work, such as excavating the cultural deposit to fully characterize its extent and collecting and curating artifacts may be warranted to mitigate any significant impacts to cultural resources. If archaeological resources of Native American origin are identified during construction, a qualified archaeologist will consult with the City to begin Native American consultation procedures. Periodic reports of the find and subsequent evaluations shall be submitted to the City during construction.	
Impact CUL-3: The project could result in damage to or destruction of human burials. Impacts would be less than significant through adherence to existing regulations and with mitigation.	*CUL-4 Human Remains* In the event of an accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and Section 5097.98 shall be followed. If during project construction, there is accidental discovery or recognition of any human remains, the following steps shall be taken: 1. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the Coroner determines the remains to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resource Code Section 5097.98. 2. Where the following conditions occur, the landowner or authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the MLD or on the project site in a location not subject to further subsurface disturbance: ▪ The NAHC is unable to identify an MLD or the MLD failed to make a recommendation within 48 hours after being notified by the commission. ▪ The descendant identified fails to make a recommendation. ▪ The landowner or authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains: ▪ When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicant may each develop a plan with respect to their respective individual development proposals for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American Burials with the appropriate Native Americans as identified by the NAHC. *CUL-5 Tribal Monitoring* A Tribal Monitor representing the Yocha Dehe Wintun Nation shall be present during all project-related ground disturbance. Additionally, the Yocha Dehe Wintun Nation's Treatment Protocol (Protocol) shall be followed with respect to Tribal Cultural Resources (TCRs). The purpose of the protocol is to formalize procedures for the treatment of Native American human remains, grave goods, ceremonial items, and items of cultural patrimony, if any are found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground-disturbing activity. This Protocol also formalizes procedures for Tribal Monitoring during archaeological studies, grading, and ground-disturbing activities. 1. Cultural Affiliation: The Yocha Dehe Wintun Nation (Tribe) traditionally occupied lands in Yolo, Solano, Lake, Colusa, and Napa Counties. The Tribe has designated its Cultural Resources Committee (Committee) to act on the Tribe's behalf with respect to the provisions of this Protocol. Any human remains which are found in conjunction with projects on lands culturally affiliated with the Tribe shall be treated in accordance with Section III of this Protocol. Any other cultural resources shall be treated in accordance with Section IV of this Protocol. 2. Inadvertent Discovery of Native American Human Remains: Whenever Native American human remains are found during the course of a project, the determination of Most Likely Descendant (MLD) under California Public Resources Code Section 5097.98 will be made by the Native American Heritage Commission (NAHC) upon notification to the NAHC of the discovery of said remains at a project site. If the location of the site and the history and prehistory of the area is culturally affiliated with the Tribe, the NAHC contacts the Tribe; a Tribal member will be designated by the Tribe to consult with the landowner and/or project proponents. Should the NAHC determine that a member of an Indian tribe other than Yocha Dehe Wintun Nation is the MLD, and the Tribe agrees with this determination, the terms of this Protocol relating to the treatment of such Native American human remains shall not be applicable; however, that situation is very unlikely. 3. Treatment of Native American Remains: In the event that Native American human remains are found during development of a project and the Tribe or a member of the Tribe is determined to be MLD pursuant to Section II of this Protocol, the following provisions shall apply. The Medical Examiner shall	

Impact	Mitigation Measure (s)	Residual Impact
	immediately be notified, ground-disturbing activities in that location shall cease and the Tribe shall be allowed, pursuant to California Public Resources Code Section 5097.98(a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and grave goods shall be treated and disposed of with appropriate dignity. The Tribe shall complete its inspection and make its MLD recommendation within 48 hours of getting access to the site. The Tribe shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be disturbed in the future. The Tribe may wish to rebury said human remains and grave goods or ceremonial and cultural items on or near the site of their discovery, in an area which will not be subject to future disturbances over a prolonged period of time. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code Sections 5097.98(a) and (b). The term "human remains" encompasses more than human bones because the Tribe's traditions call for the burial of associated cultural items with the deceased (funerary objects), and/or the ceremonial burning of Native American human remains, funerary objects, grave goods, and animals. Ashes, soils, and other remnants of these burning ceremonies, as well as associated funerary objects and unassociated funerary objects buried with or found near the Native American remains are to be treated in the same manner as bones or bone fragments that remain intact. 4. Non-Disclosure of Location of Reburials: Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, California Government Code Section 6250 et seq. The Medical Examiner shall withhold public disclosure of information related to such reburial pursuant to the specific exemption set forth in California Government Code Section 6254(r). The Tribe will require that the location for reburial is recorded with the California Historic Resources Inventory System (CHRIS) on a form acceptable to the CHRIS center. The Tribe may also suggest the landowner enter into an agreement regarding the confidentiality of site information that will run with title on the property. 5. Treatment of Cultural Resources: Treatment of all cultural items, including ceremonial items and archaeological items will reflect the religious beliefs, customs, and practices of the Tribe. All cultural items, including ceremonial items and archaeological items, which may be found at a project site shall be turned over to the Tribe for appropriate treatment, unless ordered by a court or agency of competent jurisdiction. The project proponent shall waive any and all claims to ownership of Tribal ceremonial and cultural items, including archaeological items, which may be found on a project site in favor of the Tribe. If any intermediary, (for example, an Archaeologist retained by the project proponent) is necessary, said entity or individual shall not possess those items for longer than is reasonably necessary, as determined solely by the Tribe. 6. Inadvertent Discoveries: If additional significant sites or sites not identified as significant in a project environmental review process, but later determined to be significant, are located within a project impact area, such sites will be subjected to further archaeological and cultural significance evaluation by	

Impact	Mitigation Measure (s)	Residual Impact
	the project proponent, the Lead Agency, and the Tribe to determine whether additional mitigation measures are necessary to treat sites in a culturally appropriate manner consistent with CEQA requirements for mitigation of impacts to cultural resources. If there are human remains present that have been identified as Native American, all work will cease for a period of up to 30 days in accordance with Federal Law.	
Energy		
Impact E-1: The project would not result in the wasteful, inefficient, or unnecessary consumption of energy and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact E-2: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency because the project would require Mitigation Measures that require advanced energy efficiency and the use of carbon-free electricity sources. Therefore, impacts would be less than significant with mitigation.	Mitigation Measures GHG-4 and GHG-5 (see Impact GHG-1).	Less than Significant
Geology and Soils		
Impact GEO-1: The project would not be subject to rupture of a known earthquake fault. There would be no impact.	No mitigation measures would be required.	No Impact
Impact GEO-2: Following project implementation, future structures, roadways, and occupants could be located in areas that would be exposed to seismic events, including ground shaking, liquefaction, and landslides, creating the risk for damage or injury. Compliance with the CBC, the City's Municipal Code, and Mitigation Measure GEO-1 would minimize ground shaking, liquefaction, and landslide hazards. Impacts would be less than significant with mitigation.	*GEO-1 Geotechnical Investigation* Prior to the issuance of improvement plans and building permits, the project applicant shall submit a design-level Geotechnical Investigation to the City of American Canyon for review and approval. The investigation shall be prepared by a qualified engineer and identify grading and building practices necessary to achieve compliance with the latest adopted edition of the California Building Standards Code (CBC) geologic, soils, and seismic requirements, including abatement of expansive soil conditions. The report shall also determine the final design parameters for walls, foundations, foundation slabs, and surrounding related improvements (e.g., utilities roadways, parking lots, and sidewalks). The measures identified in the approved report shall be incorporated into the project plans and all applicable construction related permits.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Impact GEO-3: The project could result in soil erosion or the loss of topsoil. Adherence to permit requirements and Mitigation Measure HYD-1 would reduce this impact to a less than significant level. Impacts would be less than significant with mitigation.	Mitigation Measure HYD-1 (see Impact HYD-1).	Less than Significant
Impact GEO-4: The project could result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Compliance with CBC requirements would reduce hazards resulting from expansive soils and impacts would be less than significant.	Mitigation Measure GEO-1 (see Impact GEO-2).	Less than Significant
Impact GEO-5: The project would be served by sanitation infrastructure. No septic tanks or alternative wastewater disposal systems would be used; therefore, there would be no impact.	No mitigation measures would be required.	No Impact
Impact GEO-6: Development facilitated by the project has the potential to impact paleontological resources. Impacts would be less than significant with mitigation incorporated.	*GEO-2 Retention of Qualified Professional Paleontologist* Prior to submittal of a discretionary development application, the project applicant shall retain a Qualified Professional Paleontologist, as defined by SVP (2010), to determine the project's potential to significantly impact paleontological resources according to SVP (2010) standards. If necessary, the Qualified Professional Paleontologist shall direct mitigation measures to reduce potential impacts to paleontological resources to a less than significant level. The City shall review and approve the Qualified Professional Paleontologist's findings and recommendation. All recommendations shall be incorporated into the project plans prior to issuance of a grading permit.	Less than Significant
Greenhouse Gas Emissions		
Impact GHG-1: The project would be consistent with BAAQMD thresholds after implementation of Mitigation Measures GHG-1 through GHG-5. This impact would be less than significant with mitigation.	*GHG-1 Construction BMPs* Prior to the issuance of any grading permits, the project applicant shall provide the City of American Canyon with documentation (e.g., site plans) demonstrating project construction will include the following construction Best Management Practices (BMPs): ▪ At least 15 percent of the construction fleet for each project phase shall be alternatively fueled or electric. ▪ At least 10 percent of building materials used for project construction shall be sourced from local suppliers. ▪ At least 65 percent of construction and demolition waste materials shall be recycled or reused.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	▪ At least one contractor that has a business location in American Canyon shall be contracted for project construction. ▪ All construction contracts shall include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) using during construction be electrically powered. ▪ Architectural coatings used for project construction shall be "Low-VOC," containing no greater than 50 grams of volatile organic compounds (VOC) per liter of product. ▪ Project construction shall prohibit the use of generators and shall establish grid power connection to electrical equipment needs. ▪ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure [ATCM] Title 13, Section 2485 of California Code of Regulations). Clear signage regarding idling restrictions shall be provided for construction workers at all access points. ▪ All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. ▪ The prime construction contractor shall post a publicly visible sign with their telephone number and contractor to contact. The construction contractor shall take corrective action within 48 hours. The BAAQMD's phone number shall also be identified and visible to ensure compliance with applicable regulations. *GHG-2 Electric Vehicle Charging Stations* Prior to issuance of any building permits, the project applicant shall demonstrate to the satisfaction of the City (e.g., shown on-site plans), that the proposed parking areas for passenger automobiles and trucks are designed and will be built to accommodate electric vehicle (EV) charging stations. At a minimum, the parking shall be designed to accommodate EV charging stations equal to the Tier 2 Nonresidential Voluntary Measures of the California Green Building Standards Code, Section A5.106.5.3.2. Prior to the issuance of any building permits, the project applicant shall demonstrate to the satisfaction of the City (e.g., shown on-site plans), that each loading dock is outfitted with at least one 240-volt outlet to accommodate truck and Transport Refrigeration Unit (TRU) charging and/or electrical power connection while trucks are loading and unloading goods. *GHG-3 All Electric Buildings* Prior to the issuance of any building permits, the project applicant shall provide the City with documentation (e.g., site plans) demonstrating the project is designed without the use of any natural gas-fueled appliances or natural gas plumbing.	

Impact	Mitigation Measure (s)	Residual Impact
	GHG-4 Tier 2 Advanced Energy Efficiency Requirements Prior to issuance of any building permits, the project applicant shall demonstrate to the satisfaction of the City (e.g., shown on-site plans), that the proposed buildings are designed and will be built to, at a minimum, the Tier 2 advanced energy efficiency requirements of the Nonresidential Voluntary Measures of the California Green Building Standards Code, Division A5.2, Energy Efficiency, as outlined under Section A5.203.1.2.2. *GHG-5 Carbon-Free Electricity Sources* Prior to the issuance of any building permit for the project, the project applicant shall provide the City with documentation (e.g., site plans) demonstrating to the City's satisfaction that electricity demand will be supplied with 100 percent carbon-free electricity sources through the year 2045 with on-site photovoltaic solar.	
Hazards and Hazardous Materials		
Impact HAZ-1: Development facilitated by the project could involve the use, storage, disposal, or transportation of hazardous materials. Upset or accident conditions in the project site could involve the release of hazardous materials into the environment. However, implementation of Mitigation Measure HAZ-1 would ensure that impacts would be less than significant.	*HAZ-1 Property Assessment – Phase I and II Environmental Site Assessments* Prior to submittal of a discretionary development application or engineering plans for the Newell Drive Extension, the project applicant shall retain a qualified environmental professional, as defined by ASTM E-1527 to prepare a project area Phase I Environmental Site Assessment (ESA) in accordance with standard ASTM methodologies, to assess the land use history of the project site that will be affected. After the site-specific Phase I ESA has been completed, the determination of specific areas that require a Phase II ESA (i.e., soil, groundwater, soil vapor subsurface investigations) shall be evaluated by the project applicant. The Phase II ESA shall be completed prior to construction and shall be based on the results of the Phase I ESA. Specifically, if the Phase I ESA identifies recognized environmental conditions or potential concern areas, the project applicant shall retain a qualified environmental consultant, California Professional Geologist or California Professional Engineer, to prepare a Phase II ESA of the project site to determine whether the soil, groundwater, and/or soil vapor has been impacted at concentrations exceeding regulatory screening levels for commercial/industrial land uses. As part of the Phase II ESA, the qualified environmental consultant shall screen the analytical results against the San Francisco Regional Water Quality Control Board environmental screening levels (ESL). These ESLs are risk-based screening levels for direct exposure of a construction worker under various depth and land use scenarios. If the Phase II ESA for the development site indicates that contaminants are detected in the subsurface at the project site, the project applicant shall take appropriate steps to protect site workers and the public. This may include the preparation of a Soil Management Plan for Impacted Soils prior to project construction. If the Phase II ESA for the contaminant site indicates that contaminants are present at concentrations exceeding hazardous waste screening thresholds for contaminants in soil and/or groundwater (CCR Title 22,	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	Section 66261.24 Characteristics of Toxicity), the project applicant shall take appropriate steps to protect site workers and the public. This may include the completion of remediation at the project prior to onsite construction. The City shall review and approve the Phase I ESA and Phase II ESA prior to construction (i.e., demolition and grading).	
Impact HAZ-2: Development facilitated by the project would not result in the release of potentially hazardous materials within 0.25 mile of a school. There would be no impact.	No mitigation measures would be required.	No Impact
Impact HAZ-3: Development facilitated by the project would not be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. However, impacts could occur from unknown hazardous materials. Compliance with Mitigation Measure HAZ-1 would minimize impacts from development on previously unknown contaminated sites and impacts would be less than significant after mitigation.	Mitigation Measure HAZ-1 (see Impact HAZ-1).	Less than Significant
Impact HAZ-4: Development facilitated by the project would occur in the Napa County Airport Land Use Compatibility Zone D. Development would occur in compliance with the Napa County Airport Land Use Compatibility Plan and impacts would be further reduced through adherence to General Plan policies. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact HAZ-5: Development facilitated by the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant	No mitigation measures would be required.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Hydrology and Water Quality		
Impact HWQ-1: The project would not violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. Individual projects would be required to comply with BMPs in accordance with State and local regulations and permit requirements, as well as Mitigation Measures HYD-1 and HYD-2. Impacts would be less than significant with mitigation.	*HYD-1 Water Pollution Prevention Plan* Prior to issuance of grading permits for the project, the applicant shall submit to the City of American Canyon for review and approval a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the statewide Construction General Permit. The SWPPP shall be designed to address the following objectives: (1) all pollutants and their sources (e.g., runoff), including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity, are controlled; (2) where not otherwise required to be under a Regional Water Quality Control Board (RWQCB) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated; (3) site Best Management Practices (BMPs) (e.g., silt fencing, street sweeping, routine inspection, etc.) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity; and (4) stabilization BMPs are installed to reduce or eliminate pollutants after construction are completed. The SWPPP shall be prepared by a qualified SWPPP developer. The SWPPP shall include the minimum BMPs required for the identified Risk Level. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association (CASQA) Stormwater Best Management Handbook–Construction or the California Department of Transportation (Caltrans) Stormwater Quality Handbook Construction Site BMPs Manual. The SWPPP shall be implemented during construction to the satisfaction of the City. *HYD-2 Stormwater Control Plan* Prior to the issuance of building permits, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The plan shall be developed using the California Stormwater Quality Association (CASQA) "New Development and Redevelopment Handbook" and include the applicable provisions of Section C.3 of the San Francisco Bay Regional Water Quality Control Board (RWQCB) Municipal Regional Permit (Order No. R2-2015-0049, NPDES Permit No. CAS612008 (or more recent permit). The Stormwater Control Plan shall identify pollution prevention measures and Best Management Practices (BMPs) to control stormwater pollution from operational activities and facilities and provide maintenance in perpetuity. The Stormwater Control Plan shall include Low Impact Development (LID) design concepts, as well as concepts that accomplish a "first flush" objective that would remove contaminants from the first 2 inches of stormwater before it enters area waterways. The project applicant shall also prepare and submit an Operations and Maintenance Agreement to the City, identifying procedures to ensure stormwater quality control measures work properly during operations.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Impact HWQ-2: The project would not interfere substantially with groundwater recharge such that sustainable groundwater management of the basin would be impeded. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact HWQ-3: The project could alter drainage patterns but would not result in substantial erosion or siltation after compliance with existing regulations and implementation of Mitigation Measures HYD-1 and HYD-2. Impacts would be less than significant with mitigation.	Mitigation Measures HYD-1 and HYD-2 (see Impact HYD-1).	Less than Significant
Impact HWQ-5: The project site is not within an area at risk from inundation by flood hazard, seiche, or tsunami and would not risk the release of pollutants due to project inundation. The project is not in a flood hazard zone and would not impede or redirect flood flows. There would be no impact.	No mitigation measures would be required.	No Impact
Impact HWQ-6: The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Land Use and Planning		
Impact LU-1: The project would not physically divide an established community and there would be no impact.	No mitigation measures would be required.	No Impact
Impact LU-2: The project would not result in a significant environmental impact due to a conflict with a plan adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.	No additional mitigation measures for land use and planning would be required beyond those identified throughout this EIR, including Mitigation Measures AES-1 and AES-2; AQ-1 through AQ-3; BIO-1 through BIO-7; CUL-1 through CUL-5; GEO-1 and GEO-2; GHG-1 through GHG-5; HAZ-1; HYD-1 and HYD-2; PSR-1; and NOI-1 through NOI-3.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Noise		
Impact NOI-1: Project Construction would result in a temporary increase in ambient noise. Implementation of Mitigation Measures NOI-1 and NOI-2 would reduce construction noise levels. Therefore, impacts generated by temporary construction noise would be less than significant with mitigation.	*NOI-1 Construction Noise Reduction Measures* The following measures shall be implemented where future development construction sites are located within 150 feet of a sensitive receiver: 1. Mufflers. During excavation and grading construction phases, all construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers, consistent with manufacturers' standards. 2. Stationary Equipment. All stationary construction equipment shall be placed so that emitted noise is directed away from the nearest sensitive receivers. 3. Shielding and Silencing. Power construction equipment (including combustion engines), fixed or mobile, shall be equipped with noise shielding and silencing devices consistent with manufacturer's standards or the Best Available Control Technology. Equipment shall be properly maintained, and the project applicant or owner shall require any construction contractor to keep documentation on-site during any earthwork or construction activities demonstrating that the equipment has been maintained in accordance with manufacturer's specifications. 4. Construction Staging Areas. Construction staging areas shall be located as far from noise-sensitive uses as reasonably possible and feasible in consideration of site boundaries, topography, intervening roads and uses, and operational constraints. 5. Smart Back-Up Alarms. Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction and in accordance with all applicable safety laws. 6. Equipment Idling. Construction vehicles and equipment shall not be left idling for longer than five minutes when not in use. 7. Workers' Radios. All noise from workers' radios, including any on-site music, shall be controlled to a point that they are not audible at off-site noise-sensitive uses. 8. Noise Complaint Response. Project applicants shall designate an on-site construction project manager who shall be responsible for responding to any complaints about construction noise. This person shall be responsible for responding to concerns of neighboring properties about construction noise disturbance and shall be available for responding to any construction noise complaints during the hours that construction is to take place. They shall also be responsible for determining the cause of the noise complaint (e.g., bad silencer) and shall require that reasonable measures be implemented to correct the problem. A toll-free telephone number and email address shall be posted in a highly visible manner on the construction site at all times and provided in all notices (mailed, online website, and construction	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	site postings) for receiving questions or complaints during construction and shall also include procedures requiring that the on-site construction manager to respond to callers and email messages. The on-site construction project manager shall be required to track complaints pertaining to construction noise, ongoing throughout demolition, grading, and/or construction and shall notify the City of each complaint occurrence. 9. Temporary Noise Barriers. For non-pile driving construction activity within 150 feet of residences, erect temporary noise barriers at the edge of the construction site closest to residences. Temporary noise barriers shall be constructed with solid materials (e.g., wood) with a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the barrier and a height of at least 12 feet. If a sound blanket is used, barriers shall be constructed with solid material with a density of at least 1 pound per square foot with no gaps from the ground to the top of the barrier and be lined on the construction side with acoustical blanket, curtain or equivalent absorptive material rated sound transmission class (STC) 32 or higher. Plans indicating compliance with these noise reduction measures shall be provided to the City for review and concurrence prior to project approval. *NOI-2 Construction Noise Reduction Measures During Pile Driving* The following measures shall be implemented during pile driving: 1. Alternative Pile Methods. For pile driving, the use of caisson drilling (drill piles), vibratory pile drivers, oscillating or rotating pile installation methods, and jetting or partial jetting of piles into place using a water injection at the tip of the pile shall be used instead of impact pile driving, where feasible. 2. Scheduling. Pile driving will be scheduled to have the least impact on nearby sensitive receivers. 3. Shrouding. Pile drivers with the best available noise control technology will be used. For example, pile driving noise control may be achieved by shrouding the pile hammer point of impact, by placing resilient padding directly on top of the pile cap, and/or by reducing exhaust noise with a sound-absorbing muffler. Plans indicating compliance with these pile driving measures shall be provided to the City for review and concurrence prior to project approval.	

Impact	Mitigation Measure (s)	Residual Impact
Impact NOI-2: Development facilitated by the project could include mechanical equipment (i.e., HVAC) and on-site activities would be required to comply with applicable noise standards in the American Canyon Municipal Code but may still exceed noise thresholds for off-site sensitive receivers. Therefore, operational stationary source impacts would be less than significant with mitigation. Furthermore, while development would generate an increase in traffic noise, the increase would not be significant. Therefore, permanent traffic noise increases due to project operation would be less than significant.	*NOI-3 Operational Stationary Source Noise Control Analysis and Measures* Prior to the issuance of a building permit for projects adjacent to the property lines of noise-sensitive uses that could exceed noise standards from the American Canyon Municipal Code or General Plan, a noise analysis shall be conducted to assess and mitigate potential noise and impacts related to the operations of the project. The noise analysis shall be conducted by a qualified and experienced acoustical consultant or engineer and shall follow the latest CEQA guidelines, practices, and precedents. Measures to reduce operational stationary sources to acceptable levels include, but are not limited to, operational hour restrictions, equipment optimization, shielding, mufflers, acoustical louvers, sound blankets, and sound walls. The noise analysis and recommended measures to implement shall be provided to the City for review and concurrence prior to project approval.	Less than Significant
Impact NOI-3: Project construction would generate temporary vibration in the project area. However, construction-related vibration impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact NOI-4: The project is outside the Napa County Airport noise contours and the project would not expose people working in the project site to excessive noise levels. No impact would occur.	No mitigation measures would be required.	No Impact
Population and Housing		
Impact POP-1: The project would not directly or indirectly induce substantial unplanned population growth. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact POP-2: The project would not displace substantial numbers of existing people or housing and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Public Services and Recreation		
Impact PSR-1: The project could result in the need for additional fire facilities; however, Mitigation Measure PSR-1 would require measures to maintain adequate fire service. Impacts would be less than significant with mitigation.	*PSR-1 Fire Facilities Coordination* After the City receives an application for development within the project site, the City shall provide the American Canyon Fire Protection District (ACFPD) with the development application. If the ACFPD determines that an additional fire station is needed, the City shall assist the District by implementing current fire service-related mitigation fee programs, as well as future fire service-related mitigation fee programs developed by the ACFPD, which shall provide funding for the additional station.	Less than Significant
Impact PSR-2: The project would be adequately served by existing police protection services. Payment of public safety taxes and development impact fees would minimize potential impacts to police service facilities and performance and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact PSR-3: The project would be adequately served by existing park facilities. The project would not include residence or induce growth in population that would utilize park facilities. Thus, impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact PSR-4: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered public facilities. No new facilities would be required to accommodate the project and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Transportation		
Impact TRA-1: The project would not conflict with a program, plan, ordinance or policy addressing the circulation system and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Impact TRA-2: The rate of VMT per job that would be generated by the project is anticipated to be lower than the significance threshold. The project would not conflict with or be inconsistent with CEQA Guidelines 15064.3(b) and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact TRA-3: The project would not substantially increase hazards due to a geometric design feature and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact TRA-4: The project would not substantially increase hazards due to a geometric design feature and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Tribal Cultural Resources		
Impact TCR-1: The Project could adversely impact Tribal Cultural Resources. Impacts would be less than significant through consultation conducted pursuant to AB 52 and implementation of mitigation.	Mitigation Measures CUL-2 through CUL-5 (see Impacts CUL-2 and CUL-3).	Less than Significant
Utilities and Service Systems		
Impact UTL-1: The project would increase demand for water, wastewater, electric power, telecommunications, and stormwater drainage; however, no additional relocation or construction of utility services will be required to service the project beyond connections to existing utilities. The project would not increase demand on natural gas. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant

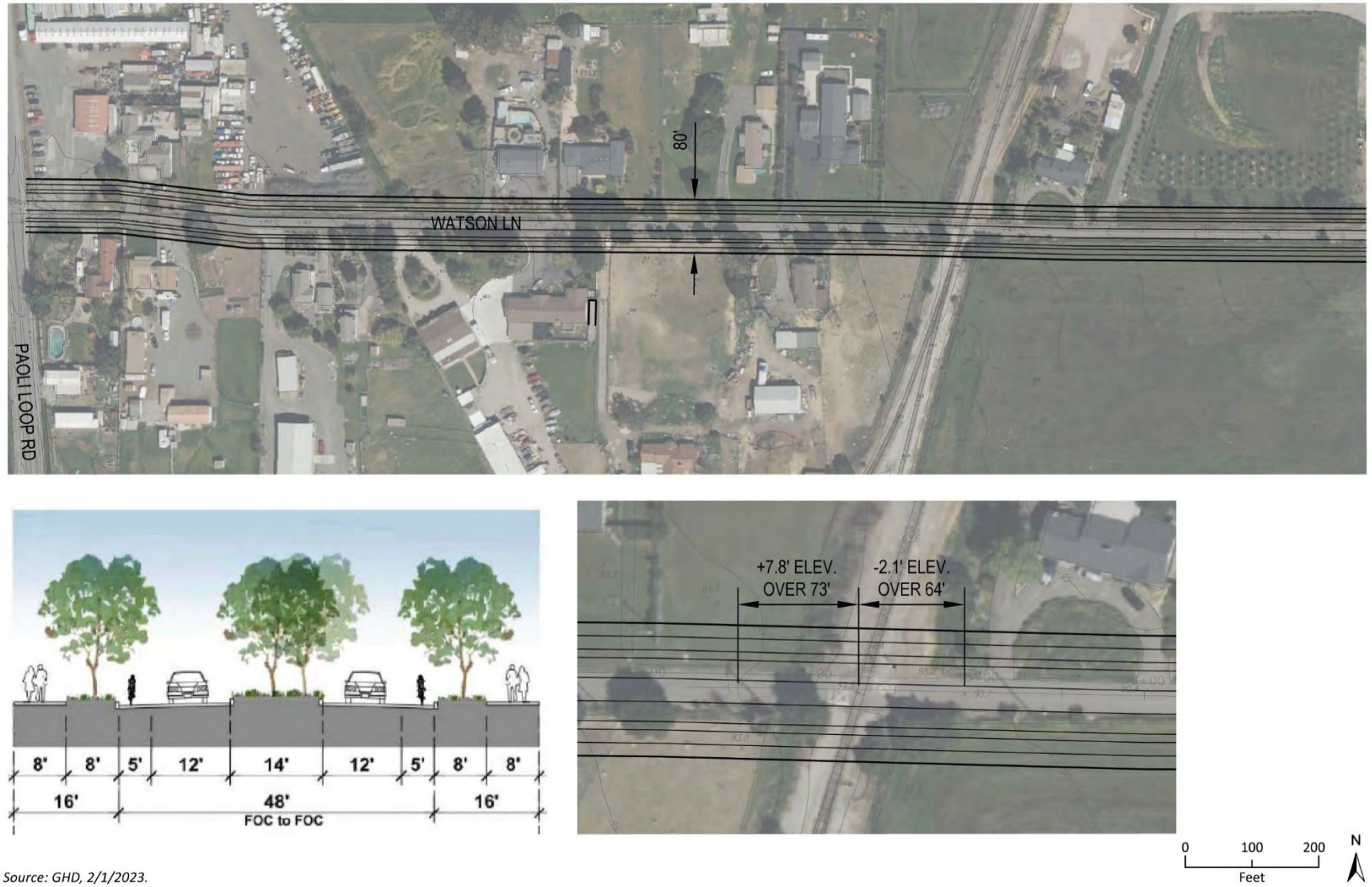
Impact	Mitigation Measure (s)	Residual Impact
Impact UTL-2: The project would increase demand for water; however, with adherence to the ZWF Policy, water supplies would be sufficient to serve the project and reasonably foreseeable future development in normal, dry, and multiple dry years. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact UTL-3: The project would increase demand for wastewater treatment but there is adequate wastewater treatment capacity to serve the project's projected demand in addition to existing commitments. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact UTL-4: The project would not generate solid waste in excess of state or local standards, would not exceed the capacity of local infrastructure, and would not impair the attainment of solid waste reduction goals. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Wildfire		
Impact WF-1: The project would not impair an emergency response plan and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact WF-2: The project could expose employees and structures to wildfire risk; however, wildfire risks would be reduced with mitigation and impacts would be less than significant with mitigation.	*WF-1 Wildfire Risk Reduction During Construction* Prior to issuance of a grading or building permit, whichever occurs first, the applicant shall submit documentation that they will implement the following measures to reduce risk of loss, injury, or death from wildfire during construction: 1. Construction equipment powered by internal combustion engines shall be equipped with spark arresters. The spark arresters shall be maintained pursuant to manufacturer recommendations to ensure adequate performance. 2. Certain project construction activities with potential to ignite wildfires during red-flag warnings issued by the National Weather Service for the project site location shall be prohibited. Example activities that shall be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	3. Fire extinguishers shall be required to be onsite during construction. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher. *WF-2 Fire Suppression Requirements* Prior to issuance of improvement plans, the applicant shall submit plans that demonstrate all fire hydrants on the project site satisfy the Fire District's minimum fire flow requirements. *WF-3 California Building Code Chapter 7A Compliance* Prior to issuance of a building permit, the applicant shall submit plans that demonstrate compliance with Chapter 7A of the California Building Code. *WF-4 Fire Resistant Vegetation and Landscaping* Prior to issuance of a building permit, the applicant shall submit landscape plans prepared by a registered Landscape Architect that are consistent with applicable Building and Fire Codes at the time the building permit is issued.	
Impact WF-3: The project would include the installation of utilities and a roadway extension (Newell Drive Extension). However, impacts would be less than significant because the Newell Drive Extension would allow for simultaneous egress and ingress during an evacuation, which would not exacerbate a fire risk.	No mitigation measures would be required.	Less than Significant
Impact WF-4: The project site is relatively flat and not downslope from a hillside that could result in a landslide following a wildfire. There would be adequate drainage on the project site to prevent flooding. Wildfire risks from flooding or landslides would be less than significant.	No mitigation measures would be required.	Less than Significant

Comparison of the Alternatives

	Project	Alternative 1: No Project	Alternative 2: At-Grade Newell Drive Crossing	Alternative 3: Reduced Buildout	Alternative 4: Watson Lane Reconfiguration
Total allowable non-residential area (square feet)	1,321,528	0	1,321,528	660,764	1,321,528
Change in total area compared to project (square feet)	n/a	-1,321,528	0	660,764	0
Total employees	1,650	0	1,650	825	1,650
Change in employee compared to project	n/a	-1,650	0	825	0

Figure 6-1 Configuration of Watson Lane under Alternative 4



Source: GHD, 2/1/2023.



Paoli/Watson Lane Annexation

Draft Environmental Impact Report

State Clearinghouse No. 2022090097

prepared by

City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, California 94503
Contact: Brent Cooper, Community Development Director

prepared with the assistance of

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

March 2023

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Executive Summary

This document is a Draft Environmental Impact Report (EIR) analyzing the environmental effects of the Watson Lane Annexation Project (project). This section summarizes the characteristics of the project, alternatives to the project, and the environmental impacts and mitigation measures associated with the project.

Project Synopsis

Project Applicant

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Project Description

This EIR has been prepared to examine the potential environmental effects of the project. The following is a summary of the full project description, which can be found in Section 2, *Project Description*.

Project Setting

The area proposed for annexation (annexation area) is located in unincorporated Napa County within the Sphere of Influence (SOI) of the City of American Canyon (City). The annexation site is surrounded by City limits to the east, west, and south. To the east of the annexation site past the Union Pacific Railroad (UPRR) are existing agricultural uses in unincorporated Napa County, two residential parcels, and the Watson Ranch Specific Plan within American Canyon. Immediately west of the annexation area is Paoli Loop Road and State Route (SR) 29, as well as existing industrial uses. The annexation area is bounded to the south by the UPRR and vacant land and mixed residential/commercial uses further south. North of the annexation areas are existing agricultural uses in unincorporated areas of Napa County.

The annexation area contains a mix of undeveloped land, residential uses, outdoor storage, and UPRR right-of-way within the SOI of the City. Land use designations in the City's General Plan include Agriculture, Town Center, and Residential Estate. In the County General Plan most of the annexation area is designated as Industrial, while the area east of the UPRR and UPRR right-of-way are designated as Agriculture-Watershed. Most of the annexation area is not pre-zoned by the City. A small section, east of the UPRR right-of-way that is designated as Town Center in the City's General Plan, is pre-zoned as Town Center.

The annexation area is approximately 83 acres. The northern portion is largely undeveloped, save a farmhouse and accessory outbuildings. The central and southern portion includes 13 residential lots, varying in size from 1 to 10 acres. The residential parcel in the southwest corner has a conditional use permit issued by the County for outdoor storage. Some of the residential lots lack municipal sewer service. The northeast portion to the east of the UPRR is a site with outdoor truck and material storage. The UPRR right-of-way in the southeast portion is undeveloped. The annexation area is surrounded by either industrial, commercial, residential, or agricultural uses. To the north and east are residential and agricultural lands. To the west are industrial uses beyond SR 29. Immediately to the south is vacant land, beyond which are residential/commercial uses.

Project Characteristics

The project would annex the entirety of the annexation area into the City of American Canyon, pending approval from the Napa County Local Agency Formation Commission (LAFCO) and amendments to the City's General Plan and zoning ordinance.

City General Plan designations would remain primarily unchanged. The land currently designated for Agriculture would be changed to Industrial, but the remaining land would not be re-designated. Other than the area east of the UPRR in the northeast section, the annexation area is not currently pre-zoned by the City. The land designated as Residential Estate would be pre-zoned as such, which would allow for residences with a minimum lot size of 1 acre. The land designated as Industrial would be pre-zoned as Paoli Light Industrial, which would be a new zoning designation that accommodates existing and new light manufacturing uses, research and development, offices, or similar uses. The Industrial land west of the North Slough would also be pre-zoned with a Paoli Commercial Overlay District, which would allow for commercial and commercially-related uses that capitalize on vehicle access and visibility. Outside of the annexation area, the land between SR 29 and Paoli Loop Road currently zoned as Light Industrial would be rezoned as Paoli Light Industrial with a Paoli Commercial Overlay District. No parcel subdivisions are proposed.

Along the northern boundary of the annexation area, the City would extend Newell Drive. The proposed roadway would connect SR 29 with the existing Newell Drive, approximately one mile southeast of the annexation area. The purpose of the Newell Drive extension would add a parallel roadway to SR 29 to relieve traffic congestion. The Newell Drive extension would extend east from SR 29 and Paoli Loop Road along the northern boundary of the annexation area and gently curve southeast towards Watson Lane as it approaches the UPRR. The Newell Drive extension would cross the UPRR tracks via an overcrossing. In addition, Newell Drive would cross the North Slough with a long span, in order to avoid the slough.

Project Objectives

The objectives of the project are to:

1. Promote economic growth in American Canyon by attracting new industries.
2. Promote development that generates net positive tax revenues for the City by generating more in new tax revenues than are consumed by City expenditures on services provided to the development.
3. Create new employment opportunities for residents of Napa County and the surrounding region.
4. Extend Newell Drive, which would augment north-south travel parallel to SR 29.

5. Improve American Canyon's jobs-housing ratio by adding new employment opportunities.
6. Further the goals and policies of the City of American Canyon General Plan by developing land contemplated to support urban development to its highest and best use.
7. Preserve the most biologically sensitive portions of the project site as open space.
8. Install circulation improvements along Paoli Loop and Watson Lane that provide efficient ingress and egress to the project while also ensuring these facilities operate at acceptable levels.
9. Promote public safety by incorporating security measures into the project design.
10. Mitigate impacts on the environment through implementation of feasible mitigation measures.

Alternatives

As required by the California Environmental Quality Act (CEQA), this EIR examines alternatives to the proposed project. Studied alternatives include the following four alternatives.

- Alternative 1: No Project
- Alternative 2: At-Grade Newell Drive Crossing
- Alternative 3: Reduced Buildout
- Alternative 4: Watson Lane Reconfiguration

CEQA Guidelines (Section 15126.6[e][2]) require that the alternatives discussion include an analysis of a No Project Alternative. Pursuant to CEQA, the No Project Alternative refers to the analysis of existing conditions and what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services The No Project Alternative (Alternative 1) assumes that the project site is not annexed into the City of American Canyon and existing land uses and Napa County zoning and land use designations remain. Current uses on the sites would continue under this alternative. No additional development would be assumed on the project site nor within the city. In addition, the Newell Drive extension would not be constructed. The No Project Alternative would lessen the severity of every impact of the project.; however, this alternative would not meet the project objectives, including those related to facilitating the development of land planned for business park/industrial uses to its highest and best use; positively contributing to the local economy; providing the City of American Canyon with a high-quality, employment-generating industrial development; serving local and regional demand for manufacturing, logistics warehouse, and other industrial uses; and extending Newell Drive to augment north-south travel parallel to SR 29.

Alternative 2 assumes that the Newell Drive extension would utilize an at-grade crossing instead of an overcrossing at the Union Pacific Railroad in the northeastern corner of the project site. Development would occur with the same intensity and land uses as described in Section 2, *Project Description* and buildout totals would remain unchanged. Alternative 2 would generally result in similar or incrementally decreased environmental impacts compared to the project and meet all project objectives. Alternative 2 would reduce the severity of nine impacts [aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, greenhouse gas (GHG) emissions, noise, tribal cultural resources] due to reduced construction intensity. However Alternative 2 would increase the severity of four impacts (hazards, public services, transportation, and wildfire) due to potential conflicts between evacuating and emergency vehicles and train traffic. In addition, Alternative 2 may not be feasible depending on coordination with UPRR and the California Public Utilities Commission (CPUC). Coordination with UPRR and the CPUC would be required for either an

at-grade crossing or an overcrossing; however, both the UPRR and the CPUC prefer implementing overcrossings instead of at-grade crossings due to safety and other reasons.

Alternative 3 assumes that buildout would decrease from 80 percent of the project site area to 40 percent. Alternative 3 would configure Newell Drive the same as the project (i.e., an overcrossing over the Union Pacific Railroad). Alternative 3 is the environmentally superior alternative as it would reduce the severity of 12 impacts (aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hydrology and water quality, noise, public services and recreation, tribal cultural resources, and utilities and service systems) compared to the project. Alternative 3 would meet the project objectives identified in Section 2, *Project Description*, as it would provide additional acreage for industrial uses and facilitate development of the Newell Drive extension. However, it should be noted that Alternative 3 would meet the project objectives to a reduced extent because it would provide lower buildout opportunities.

Alternative 4 assumes that the Newell Drive extension would not extend north of Watson Lane, and that travelers would instead utilize Watson Lane and Paoli Loop Road for travel between Newell Drive and SR 29, and between Newell Drive and the planned extension of South Kelly Road. Alternative 4 would utilize an existing at-grade crossing of the UPRR tracks on Watson Lane, instead of an overcrossing. Under Alternative 4, the existing at-grade crossing on Watson Lane would be modernized to accommodate increased travel. Modifications to Watson Lane would require the expansion of Watson Lane to 80 feet, as well as fill along approximately 670 feet of Watson Lane. In comparing the proposed project and Alternatives 2 through 4, Alternative 4 would result in the greatest environmental impacts. Alternative 4 would reduce the severity of eight impacts (aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hydrology and water quality, and tribal cultural resources) due to reduced construction intensity. While the Watson Lane roadway widening for Alternative 4 would have reduced construction intensity compared to the project, the roadway widening for Alternative 4 would have a greater construction intensity compared to the at-grade crossing for Alternative 2. This is due to the fill that would be required for the Watson Lane at-grade crossing, in order to raise the elevation along 670 feet of Watson Lane. Alternative 4 would increase the severity of impacts for six environmental resources. Like the at-grade crossing for Alternative 2, the at-grade crossing along Watson Lane associated with Alternative 4 would increase the severity of hazards, public services, transportation, and wildfire due to potential conflicts between evacuating and emergency vehicles and train traffic. Alternative 4 would also increase the impacts for land use and planning due to Alternative 4's inconsistency with the existing General Plan Circulation Element, which identifies the Newell Drive extension as the proposed roadway alignment. Alternative 4 would also result in greater construction noise impacts due to the increased proximity of construction to residences. Furthermore, unlike the proposed project or Alternative 2 and 3, Alterative 4 would require the take of portions of private residences located along Watson Lane. For all these reasons, Alternative 4 would result in the greatest environmental impacts.

For the reasons identified above, Alternative 3 was found to be the environmentally superior alternative.

Areas of Known Controversy

The EIR scoping process did not identify any areas of known controversy for the project. Responses to the Notice of Preparation of a Draft EIR and input received at the EIR scoping meeting held by the City are summarized in Section 1, *Introduction*.

Issues to be Resolved

There are no issues to be resolved at this time.

Issues Not Studied in Detail in the EIR

Section 4.19, *Effects Found Not to be Significant*, briefly analyzes issues from the environmental checklist that were determined to not have significant impacts. As discussed in Section 4.19, there is no substantial evidence that significant impacts would occur to mineral resources and schools.

Summary of Impacts and Mitigation Measures

Table ES-1 summarizes the environmental impacts of the project, proposed mitigation measures, and residual impacts (the impact after application of mitigation, if required). Impacts are categorized as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per CEQA Guidelines Section 15093.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under CEQA Guidelines Section 15091.
- **Less than Significant.** An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Table ES-1 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measure (s)	Residual Impact
Aesthetics		
Impact AES-1: The project would not have a substantial adverse effect on a scenic vista, including views of hills, and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact AES-2: The City of American Canyon does not have a designated state scenic highway and the project would not damage scenic resources within a state scenic highway. No impact would occur.	No mitigation measures would be required.	No Impact
Impact AES-3: The project is in an urbanized area and would not conflict with applicable zoning or General Plan policies governing scenic quality. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact AES-4: Construction and operation of future development facilitated by the project could create new sources of light or glare that could adversely affect the visual environment. Impacts would be less than significant with mitigation measures incorporated.	*AES-1 Construction Lighting Plan* Prior to nighttime construction, if needed for a particular project, project applicants shall submit a construction lighting plan to the City for review and approval. The construction lighting plan shall ensure that the minimum amount of lighting is used to meet safety requirements and ensure no spillover occurs to nearby sensitive uses. All lighting shall be directed downward and away from surrounding land uses. *AES-2 Operational Lighting Plan* Prior to discretionary project approval, the project applicant shall prepare and submit a photometric plan to the City for review and approval which demonstrates that all exterior light fixtures will be directed downward or employ full cut-off fixtures to prevent light spillage. The approved plan shall be incorporated into the project design plans.	Less than Significant
Agricultural and Forestry Resources		
Impact AG-1: The project would not convert Farmland, as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program, to non-agricultural use. No impact would occur.	No mitigation measures would be required.	No Impact

Impact	Mitigation Measure (s)	Residual Impact
Impact AG-2: The project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.	No mitigation measures would be required.	No Impact
Impact AG-3: The project would not conflict with existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned Timberland Production, or result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.	No mitigation measures would be required.	No Impact
Impact AG-4: The project would not involve other changes in the existing environment and would not result in the conversion of farmland or forestland to non-agricultural use or non-forest use. No impact would occur.	No mitigation measures would be required.	No Impact
Air Quality		
Impact AQ-1: The project would be consistent with the BAAQMD's 2017 Clean Air Plan. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact AQ-2: The project would not result in a cumulatively considerable net increase of operational criteria pollutants. Impacts from construction would be less than significant with mitigation. Impacts from operation would be less than significant.	*AQ-1 Implement BAAQMD Basic Construction Mitigation Measures* To reduce fugitive dust emissions from the construction of individual projects, the applicant shall implement the BAAQMD Basic Construction Mitigation Measures. The BAAQMD Basic Construction Mitigation Measures are listed below: ▪ All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times a 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. ▪ 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.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	▪ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points. ▪ All construction equipment shall be maintained and properly tuned in accordance with manufacture's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper conditions prior to operation. ▪ Post a publicly visible sign with the telephone number and person to contact at the City of American Canyon regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's number shall also be visible to ensure compliance with applicable regulations.	
Impact AQ-3: Construction activities for future individual projects lasting longer than two months or located within 1,000 feet of sensitive receptors could expose sensitive receptors to substantial pollutant concentrations. Implementation of the project may also expose sensitive receptors to operational sources of toxic air contaminants. Impacts would be less than significant with mitigation.	*AQ-2 Conduct Construction Health Risk Assessment* Prior to issuance of a grading or building permit, whichever occurs first, the applicant shall submit to the City a construction health risk assessment (HRA) in accordance with BAAQMD recommendations for any development project (including the proposed Newell Drive extension) that has at least one the following characteristics: ▪ The project is located within 1,000 feet of sensitive receptors. ▪ Project construction would last longer than two months. ▪ Project construction would not utilize equipment rated USEPA Tier 4 (for equipment of 50 horsepower or more); construction equipment fitted with Level 3 Diesel Particulate Filters (for all equipment of 50 horsepower or more); or alternative fuel construction equipment. If the HRA determines that construction will exceed BAAQMD significance thresholds, the HRA shall provide mitigation measures to reduce the impact to less than significant, including but not limited to requiring the use of Tier 4 engines, Level 3 Diesel Particulate Filters, and/or alternative fuel construction equipment. *AQ-3 Conduct Operational Health Risk Assessment* Prior to submittal of a subsequent discretionary development permit application for industrial, warehousing, or commercial land uses that would generate at least 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day, the applicant shall submit an operational health risk assessment (HRA) or submit proof that an HRA is not required in accordance with BAAQMD thresholds. If required, the operational HRA shall be prepared in accordance with the Office of Environmental Health Hazard Assessment and BAAQMD requirements, and mitigated to an acceptable level. Typical measures to reduce risk impacts may include, but are not limited to: ▪ Restricting idling on-site beyond Air Toxic Control Measures idling restrictions, as feasible. ▪ Electrifying warehousing docks. ▪ Truck Electric Vehicle (EV) Capable trailer spaces.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	▪ Requiring use of newer equipment and/or vehicles. ▪ Restricting off-site truck travel through the creation of truck routes. The operational HRA shall be provided to the City for review and concurrence prior to project approval.	
Impact AQ-4: The project would not create objectionable odors that could adversely affect a substantial number of people. Impacts related to odors would be less than significant.	No mitigation measures would be required.	Less than Significant
Biological Resources		
Impact BIO-1: The project may result in direct or indirect impacts to special-status species, their associated habitats, and nesting birds. This impact would be less than significant with mitigation.	*BIO-1 Site-Specific Biological Resources Assessment* The City shall implement the following measures during environmental review of future development within the project site. On a project-by-project basis, a preliminary biological resource screening shall be performed to determine whether a specific project has the potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) or similar type of study to document the existing biological resources within the project footprint plus an appropriate buffer determined by a qualified biologist and to determine the potential impacts to those resources. The BRA shall evaluate the potential for impacts to all sensitive biological resources including, but not limited to special-status species, nesting birds, wildlife movement, sensitive plant communities/critical habitat and other resources judged to be sensitive by local, state, and/or federal agencies. Pending the results of the BRA, design alterations, further technical studies (i.e., protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be necessary. The City shall review and approve the BRA prior to project approval. *BIO-2 Pre-construction Surveys for Swainson's Hawk, Other Raptors and Nesting Birds* Ground disturbance and vegetation removal activities shall be restricted to the non-breeding season (September 16 to January 31), when feasible. If construction activities occur during the nesting bird season (February 1 to September 15), the following mitigation measures are recommended to reduce impacts to Swainson's hawk, protected raptor species, and other nesting birds protected by the MBTA and CFGC. A qualified biologist shall conduct surveys for Swainson's hawk between January 1 and March 20. A preconstruction survey for other raptors and nesting birds shall be conducted no more than seven days prior to initiation of ground disturbance and vegetation removal. The survey shall be conducted within the project site and include a 150-foot buffer for passerines, 500-foot buffer for other raptors, and 0.5 mile buffer for active Swainson's hawk nests. The surveys shall be conducted by a biologist familiar with the identification of avian species known to occur in the region. It is recommended that surveys follow the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	Hawk Nesting Surveys in California's Central Valley. If a Swainson's hawk or white-tailed kite nest is found, the biologist shall set up appropriate buffers in consultation with CDFW. If the nesting bird survey results are negative, no further action is required. If nests are found, the biologist shall determine and demarcate an appropriate avoidance buffer with high visibility material. For Swainson's hawk nests, the biologist shall establish an avoidance buffer of up to 0.5 mile based on the nest location in relation to the construction activity, the line-of-sight from the nest to the construction activity, and observed hawk behavior at the nest. The qualified biologist shall notify all construction personnel of the buffer zones and to avoid entering buffer zones during the nesting season. No ground disturbing activities shall occur within the buffer until the biologist has confirmed that breeding/nesting is complete, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the biologist. Results of the preconstruction nesting bird survey shall be submitted to the City in a brief letter report no more than 30 days after completion of the survey. *BIO-3 Pre-construction Surveys for Western Burrowing Owl* Prior to ground disturbance activities, a qualified biologist shall conduct pre-construction clearance surveys within suitable natural habitats and ruderal areas throughout the project site, to confirm the presence/absence of active western burrowing owl burrows. The surveys shall be consistent with the recommended survey methodology provided by CDFW's Staff Report on Burrowing Owl Mitigation. Clearance surveys shall be conducted within 30 days prior to construction and ground disturbance activities. If no western burrowing owls are observed, no further actions are required. If western burrowing owls are detected during the pre-construction clearance surveys, the following measures shall apply: ▪ Avoidance buffers during the breeding and non-breeding season shall be implemented in accordance with the CDFW's Staff Report on Burrowing Owl Mitigation minimization mitigation measures. ▪ If avoidance of western burrowing owls is not feasible, then additional measures such as passive relocation during the nonbreeding season and construction buffers of 200 feet during the breeding season shall be implemented, in consultation with CDFW. In addition, a Western Burrowing Owl Exclusion Plan and Mitigation and Monitoring Plan shall be developed by a qualified biologist in accordance with the CDFW (2012) and Burrowing Owl Consortium (1993). Project applicants shall submit evidence of clearance surveys, avoidance buffers or additional measures to the City as required. *BIO-4 Worker Environmental Awareness Program* Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend Worker Environmental Awareness Program training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the project site. The program shall include identification of the sensitive species and habitats, a description of the regulatory	

Impact	Mitigation Measure (s)	Residual Impact
	status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All employees shall sign a form documenting attendance at the Worker Environmental Awareness Program and that they understand the information presented to them. The form shall be submitted to the City to document compliance.	
Impact BIO-2: No riparian habitat or sensitive natural communities are present in the project site. No impact would occur.	No mitigation measures would be required.	Less than Significant
Impact BIO-3: Implementation of the project may result in impacts to state or federally protected waters. This impact would be less than significant with mitigation.	*BIO-5 Aquatic Resources Delineation* A qualified biologist shall complete an aquatic resources delineation survey that establishes the extent of the waters of the U.S. and State and identify the potential jurisdictional limits of USACE, RWQCB, and CDFW. The delineation shall be conducted in accordance with the requirement set forth by each agency and the results presented in a report that shall be submitted to the City, USACE, RWQCB, and CDFW, as appropriate, for review and approval. If the USACE asserts its authority, then a permit pursuant to Section 404 of the CWA would be required. If jurisdictional areas are expected to be impacted, then the RWQCB would require a Section 401 Water Quality Certification and/or Waste Discharge Requirement permit (depending upon whether the feature falls under federal jurisdiction or not). If CDFW asserts its jurisdictional authority, then a Lake or Streambed Alteration Agreement pursuant to Section 1600 et seq. of the CFGC would also be required prior to construction within the areas of CDFW jurisdiction. *BIO-6 General Avoidance and Minimization* Development shall be designed to avoid potentially jurisdictional features identified in aquatic resources delineation reports (Mitigation Measure BIO-4), to the extent feasible. No development shall occur within 50 feet of the top of bank for North Slough. Projects with potentially jurisdictional features shall provide the City with a report detailing how all identified aquatic features will be avoided, including groundwater draw down, prior to project approval. *BIO-7 Restoration for Impacts to Waters and Wetlands* If the project cannot be designed to avoid impacts to waters and wetlands (as described in Mitigation Measure BIO-6), then impacts shall be fully mitigated at an appropriate ratio, as determined by a qualified biologist and in accordance with regulatory agency requirements. Mitigation can be achieved through the setting aside or acquisition and in-perpetuity management of similar habitat on-site (this can include restoration of jurisdictional features within the project site) or as close to the impact habitat as possible. Mitigation lands must be placed into a conservation easement or other covenant restricting future development. A mitigation and monitoring plan consistent with regulatory agency requirements shall be developed by a qualified biologist and submittal to the regulatory agency overseeing the project for	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	approval. Alternatively, mitigation shall be accomplished through purchase of credits from an approved mitigation bank. Mitigation lands or in lieu funding sufficient to acquire lands should provide habitat at a minimum 1:1 ratio for impacted lands, comparable to habitat to be impacted by individual project activity. The City shall review and approve the plan before submittal to the agencies.	
Impact BIO-4: Implementation of the project would not substantially impede the movement of native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors after the implementation of Mitigation Measure BIO-6. This impact would be less than significant with mitigation.	Mitigation Measure BIO-6 (see Impact BIO-3).	Less than Significant
Impact BIO-5: Implementation of the project could conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. However, this impact would be less than significant with mitigation.	Mitigation Measures BIO-5, BIO-6, and BIO-7 (see Impact BIO-3).	Less than Significant
Impact BIO-6: Implementation of the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. No impact would occur.	No mitigation measures would be required	No Impact
Cultural Resources		
Impact CUL-1: The project could adversely affect previously unidentified historic-period resources. Impacts to historic-period resources would be less than significant with mitigation.	*CUL-1 Historical Built Environment* Prior to project approval, the applicant shall submit a report to the City that identifies any historic-age features (i.e., structures over 45 years of age) proposed to be altered or demolished. If historical-age features are present, the applicant shall submit a historical resources evaluation to the City prepared in areas that contains buildings, structures, objects, sites, landscape/site plans, or other features that are 45 years of age or older, by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards (PQS) in architectural history or history (36 CFR Part 61). The evaluation shall include an intensive-level evaluation, in accordance with the guidelines and best practices meeting the State Office of Historic Preservation guidelines. All evaluated properties shall be documented	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	on Department of Parks and Recreation Series 523 Forms. The report shall be submitted to the City for review and approval. If historical resources are identified through the survey and evaluation, efforts shall be made by the applicant to ensure that the relocation, rehabilitation, or alteration of the resource is consistent with the Secretary of the Interior's Standards for the Treatments of Historic Properties (Standards). The applicant shall submit a report to the City that identifies and specifies the treatment of character-defining features and construction activities, and demonstrates how the project complies with the Standards and avoids the substantial adverse change in the significance of the historical resource as defined by CEQA Guidelines Section 15064.5(b). The report shall be prepared by an architectural historian or historical architect meeting the PQS as defined by 36 CFR Part 61 and provided to the City for review and concurrence prior to project approval.	
Impact CUL-2: The project could adversely affect previously unidentified archaeological resources. Impacts would be less than significant with mitigation.	*CUL-2 Archaeological Resources Assessment* Prior to submittal of any discretionary development application that involves ground disturbance activities (that may include but are not limited to, pavement removal, potholing, grubbing, tree removal, and grading), the applicant shall submit an archaeological resources assessment prepared by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in either prehistoric or historic archaeology. Assessments shall include a CHRIS records search at the NWIC and a SLF Search from the NAHC. The records searches shall characterize the results of previous cultural resource surveys and disclose any cultural resources that have been recorded and/or evaluated in and around the development site. If the assessment begins on or before 2027, the results of the NWIC and SLF search for this EIR can be summarized as part of the assessment. A Phase I pedestrian survey shall be undertaken in future project areas that are undeveloped to locate any surface cultural materials. By performing a records search, a SLF search, and a Phase I survey, a qualified archaeologist shall be able to classify the future project area as having high, medium, or low sensitivity for archaeological resources. If the Phase I archaeological survey identifies resources that may be affected by the future project, the archaeological resources assessment shall also include Phase II testing and evaluation. If resources are determined significant or unique through Phase II testing and site avoidance is not possible, appropriate site-specific mitigation measures shall be identified in the Phase II evaluation. These measures may include, but would not be limited to, a Phase III data recovery program, avoidance, or other appropriate actions to be determined by a qualified archaeologist. If significant archaeological resources cannot be avoided, impacts may be reduced to less than significant level by filling on top of the sites rather than cutting into the cultural deposits. Alternatively, and/or in addition, a data collection program may be warranted, including mapping the location of artifacts, surface collection of artifacts, or excavation of the cultural deposit, to characterize the nature of the buried portions of sites. Curation of the excavated artifacts or samples would occur as specified by the archaeologist. The archaeological resources assessment shall be reviewed and approved by the City prior to project approval.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	CUL-3 Unanticipated Discoveries An Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology shall be present on-site during all earth disturbing activities. If cultural resources are encountered during ground-disturbing activities, work within 100 feet of the area shall be halted and the contractor shall contact an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology in either prehistoric or historic archaeology immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work, such as excavating the cultural deposit to fully characterize its extent and collecting and curating artifacts may be warranted to mitigate any significant impacts to cultural resources. If archaeological resources of Native American origin are identified during construction, a qualified archaeologist will consult with the City to begin Native American consultation procedures. Periodic reports of the find and subsequent evaluations shall be submitted to the City during construction.	
Impact CUL-3: The project could result in damage to or destruction of human burials. Impacts would be less than significant through adherence to existing regulations and with mitigation.	*CUL-4 Human Remains* In the event of an accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and Section 5097.98 shall be followed. If during project construction, there is accidental discovery or recognition of any human remains, the following steps shall be taken: 1. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the Coroner determines the remains to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resource Code Section 5097.98. 2. Where the following conditions occur, the landowner or authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the MLD or on the project site in a location not subject to further subsurface disturbance: ▪ The NAHC is unable to identify an MLD or the MLD failed to make a recommendation within 48 hours after being notified by the commission. ▪ The descendant identified fails to make a recommendation. ▪ The landowner or authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains: ▪ When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicant may each develop a plan with respect to their respective individual development proposals for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American Burials with the appropriate Native Americans as identified by the NAHC. *CUL-5 Tribal Monitoring* A Tribal Monitor representing the Yocha Dehe Wintun Nation shall be present during all project-related ground disturbance. Additionally, the Yocha Dehe Wintun Nation's Treatment Protocol (Protocol) shall be followed with respect to Tribal Cultural Resources (TCRs). The purpose of the protocol is to formalize procedures for the treatment of Native American human remains, grave goods, ceremonial items, and items of cultural patrimony, if any are found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground-disturbing activity. This Protocol also formalizes procedures for Tribal Monitoring during archaeological studies, grading, and ground-disturbing activities. 1. Cultural Affiliation: The Yocha Dehe Wintun Nation (Tribe) traditionally occupied lands in Yolo, Solano, Lake, Colusa, and Napa Counties. The Tribe has designated its Cultural Resources Committee (Committee) to act on the Tribe's behalf with respect to the provisions of this Protocol. Any human remains which are found in conjunction with projects on lands culturally affiliated with the Tribe shall be treated in accordance with Section III of this Protocol. Any other cultural resources shall be treated in accordance with Section IV of this Protocol. 2. Inadvertent Discovery of Native American Human Remains: Whenever Native American human remains are found during the course of a project, the determination of Most Likely Descendant (MLD) under California Public Resources Code Section 5097.98 will be made by the Native American Heritage Commission (NAHC) upon notification to the NAHC of the discovery of said remains at a project site. If the location of the site and the history and prehistory of the area is culturally affiliated with the Tribe, the NAHC contacts the Tribe; a Tribal member will be designated by the Tribe to consult with the landowner and/or project proponents. Should the NAHC determine that a member of an Indian tribe other than Yocha Dehe Wintun Nation is the MLD, and the Tribe agrees with this determination, the terms of this Protocol relating to the treatment of such Native American human remains shall not be applicable; however, that situation is very unlikely. 3. Treatment of Native American Remains: In the event that Native American human remains are found during development of a project and the Tribe or a member of the Tribe is determined to be MLD pursuant to Section II of this Protocol, the following provisions shall apply. The Medical Examiner shall	

Impact	Mitigation Measure (s)	Residual Impact
	immediately be notified, ground-disturbing activities in that location shall cease and the Tribe shall be allowed, pursuant to California Public Resources Code Section 5097.98(a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and grave goods shall be treated and disposed of with appropriate dignity. The Tribe shall complete its inspection and make its MLD recommendation within 48 hours of getting access to the site. The Tribe shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be disturbed in the future. The Tribe may wish to rebury said human remains and grave goods or ceremonial and cultural items on or near the site of their discovery, in an area which will not be subject to future disturbances over a prolonged period of time. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code Sections 5097.98(a) and (b). The term "human remains" encompasses more than human bones because the Tribe's traditions call for the burial of associated cultural items with the deceased (funerary objects), and/or the ceremonial burning of Native American human remains, funerary objects, grave goods, and animals. Ashes, soils, and other remnants of these burning ceremonies, as well as associated funerary objects and unassociated funerary objects buried with or found near the Native American remains are to be treated in the same manner as bones or bone fragments that remain intact. 4. Non-Disclosure of Location of Reburials: Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, California Government Code Section 6250 et seq. The Medical Examiner shall withhold public disclosure of information related to such reburial pursuant to the specific exemption set forth in California Government Code Section 6254(r). The Tribe will require that the location for reburial is recorded with the California Historic Resources Inventory System (CHRIS) on a form acceptable to the CHRIS center. The Tribe may also suggest the landowner enter into an agreement regarding the confidentiality of site information that will run with title on the property. 5. Treatment of Cultural Resources: Treatment of all cultural items, including ceremonial items and archaeological items will reflect the religious beliefs, customs, and practices of the Tribe. All cultural items, including ceremonial items and archaeological items, which may be found at a project site shall be turned over to the Tribe for appropriate treatment, unless ordered by a court or agency of competent jurisdiction. The project proponent shall waive any and all claims to ownership of Tribal ceremonial and cultural items, including archaeological items, which may be found on a project site in favor of the Tribe. If any intermediary, (for example, an Archaeologist retained by the project proponent) is necessary, said entity or individual shall not possess those items for longer than is reasonably necessary, as determined solely by the Tribe. 6. Inadvertent Discoveries: If additional significant sites or sites not identified as significant in a project environmental review process, but later determined to be significant, are located within a project impact area, such sites will be subjected to further archaeological and cultural significance evaluation by	

Impact	Mitigation Measure (s)	Residual Impact
	the project proponent, the Lead Agency, and the Tribe to determine whether additional mitigation measures are necessary to treat sites in a culturally appropriate manner consistent with CEQA requirements for mitigation of impacts to cultural resources. If there are human remains present that have been identified as Native American, all work will cease for a period of up to 30 days in accordance with Federal Law.	
Energy		
Impact E-1: The project would not result in the wasteful, inefficient, or unnecessary consumption of energy and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact E-2: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency because the project would require Mitigation Measures that require advanced energy efficiency and the use of carbon-free electricity sources. Therefore, impacts would be less than significant with mitigation.	Mitigation Measures GHG-4 and GHG-5 (see Impact GHG-1).	Less than Significant
Geology and Soils		
Impact GEO-1: The project would not be subject to rupture of a known earthquake fault. There would be no impact.	No mitigation measures would be required.	No Impact
Impact GEO-2: Following project implementation, future structures, roadways, and occupants could be located in areas that would be exposed to seismic events, including ground shaking, liquefaction, and landslides, creating the risk for damage or injury. Compliance with the CBC, the City's Municipal Code, and Mitigation Measure GEO-1 would minimize ground shaking, liquefaction, and landslide hazards. Impacts would be less than significant with mitigation.	*GEO-1 Geotechnical Investigation* Prior to the issuance of improvement plans and building permits, the project applicant shall submit a design-level Geotechnical Investigation to the City of American Canyon for review and approval. The investigation shall be prepared by a qualified engineer and identify grading and building practices necessary to achieve compliance with the latest adopted edition of the California Building Standards Code (CBC) geologic, soils, and seismic requirements, including abatement of expansive soil conditions. The report shall also determine the final design parameters for walls, foundations, foundation slabs, and surrounding related improvements (e.g., utilities roadways, parking lots, and sidewalks). The measures identified in the approved report shall be incorporated into the project plans and all applicable construction related permits.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Impact GEO-3: The project could result in soil erosion or the loss of topsoil. Adherence to permit requirements and Mitigation Measure HYD-1 would reduce this impact to a less than significant level. Impacts would be less than significant with mitigation.	Mitigation Measure HYD-1 (see Impact HYD-1).	Less than Significant
Impact GEO-4: The project could result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Compliance with CBC requirements would reduce hazards resulting from expansive soils and impacts would be less than significant.	Mitigation Measure GEO-1 (see Impact GEO-2).	Less than Significant
Impact GEO-5: The project would be served by sanitation infrastructure. No septic tanks or alternative wastewater disposal systems would be used; therefore, there would be no impact.	No mitigation measures would be required.	No Impact
Impact GEO-6: Development facilitated by the project has the potential to impact paleontological resources. Impacts would be less than significant with mitigation incorporated.	*GEO-2 Retention of Qualified Professional Paleontologist* Prior to submittal of a discretionary development application, the project applicant shall retain a Qualified Professional Paleontologist, as defined by SVP (2010), to determine the project's potential to significantly impact paleontological resources according to SVP (2010) standards. If necessary, the Qualified Professional Paleontologist shall direct mitigation measures to reduce potential impacts to paleontological resources to a less than significant level. The City shall review and approve the Qualified Professional Paleontologist's findings and recommendation. All recommendations shall be incorporated into the project plans prior to issuance of a grading permit.	Less than Significant
Greenhouse Gas Emissions		
Impact GHG-1: The project would be consistent with BAAQMD thresholds after implementation of Mitigation Measures GHG-1 through GHG-5. This impact would be less than significant with mitigation.	*GHG-1 Construction BMPs* Prior to the issuance of any grading permits, the project applicant shall provide the City of American Canyon with documentation (e.g., site plans) demonstrating project construction will include the following construction Best Management Practices (BMPs): ▪ At least 15 percent of the construction fleet for each project phase shall be alternatively fueled or electric. ▪ At least 10 percent of building materials used for project construction shall be sourced from local suppliers. ▪ At least 65 percent of construction and demolition waste materials shall be recycled or reused.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	▪ At least one contractor that has a business location in American Canyon shall be contracted for project construction. ▪ All construction contracts shall include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) using during construction be electrically powered. ▪ Architectural coatings used for project construction shall be "Low-VOC," containing no greater than 50 grams of volatile organic compounds (VOC) per liter of product. ▪ Project construction shall prohibit the use of generators and shall establish grid power connection to electrical equipment needs. ▪ Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure [ATCM] Title 13, Section 2485 of California Code of Regulations). Clear signage regarding idling restrictions shall be provided for construction workers at all access points. ▪ All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. ▪ The prime construction contractor shall post a publicly visible sign with their telephone number and contractor to contact. The construction contractor shall take corrective action within 48 hours. The BAAQMD's phone number shall also be identified and visible to ensure compliance with applicable regulations. *GHG-2 Electric Vehicle Charging Stations* Prior to issuance of any building permits, the project applicant shall demonstrate to the satisfaction of the City (e.g., shown on-site plans), that the proposed parking areas for passenger automobiles and trucks are designed and will be built to accommodate electric vehicle (EV) charging stations. At a minimum, the parking shall be designed to accommodate EV charging stations equal to the Tier 2 Nonresidential Voluntary Measures of the California Green Building Standards Code, Section A5.106.5.3.2. Prior to the issuance of any building permits, the project applicant shall demonstrate to the satisfaction of the City (e.g., shown on-site plans), that each loading dock is outfitted with at least one 240-volt outlet to accommodate truck and Transport Refrigeration Unit (TRU) charging and/or electrical power connection while trucks are loading and unloading goods. *GHG-3 All Electric Buildings* Prior to the issuance of any building permits, the project applicant shall provide the City with documentation (e.g., site plans) demonstrating the project is designed without the use of any natural gas-fueled appliances or natural gas plumbing.	

Impact	Mitigation Measure (s)	Residual Impact
	GHG-4 Tier 2 Advanced Energy Efficiency Requirements Prior to issuance of any building permits, the project applicant shall demonstrate to the satisfaction of the City (e.g., shown on-site plans), that the proposed buildings are designed and will be built to, at a minimum, the Tier 2 advanced energy efficiency requirements of the Nonresidential Voluntary Measures of the California Green Building Standards Code, Division A5.2, Energy Efficiency, as outlined under Section A5.203.1.2.2. *GHG-5 Carbon-Free Electricity Sources* Prior to the issuance of any building permit for the project, the project applicant shall provide the City with documentation (e.g., site plans) demonstrating to the City's satisfaction that electricity demand will be supplied with 100 percent carbon-free electricity sources through the year 2045 with on-site photovoltaic solar.	
Hazards and Hazardous Materials		
Impact HAZ-1: Development facilitated by the project could involve the use, storage, disposal, or transportation of hazardous materials. Upset or accident conditions in the project site could involve the release of hazardous materials into the environment. However, implementation of Mitigation Measure HAZ-1 would ensure that impacts would be less than significant.	*HAZ-1 Property Assessment – Phase I and II Environmental Site Assessments* Prior to submittal of a discretionary development application or engineering plans for the Newell Drive Extension, the project applicant shall retain a qualified environmental professional, as defined by ASTM E-1527 to prepare a project area Phase I Environmental Site Assessment (ESA) in accordance with standard ASTM methodologies, to assess the land use history of the project site that will be affected. After the site-specific Phase I ESA has been completed, the determination of specific areas that require a Phase II ESA (i.e., soil, groundwater, soil vapor subsurface investigations) shall be evaluated by the project applicant. The Phase II ESA shall be completed prior to construction and shall be based on the results of the Phase I ESA. Specifically, if the Phase I ESA identifies recognized environmental conditions or potential concern areas, the project applicant shall retain a qualified environmental consultant, California Professional Geologist or California Professional Engineer, to prepare a Phase II ESA of the project site to determine whether the soil, groundwater, and/or soil vapor has been impacted at concentrations exceeding regulatory screening levels for commercial/industrial land uses. As part of the Phase II ESA, the qualified environmental consultant shall screen the analytical results against the San Francisco Regional Water Quality Control Board environmental screening levels (ESL). These ESLs are risk-based screening levels for direct exposure of a construction worker under various depth and land use scenarios. If the Phase II ESA for the development site indicates that contaminants are detected in the subsurface at the project site, the project applicant shall take appropriate steps to protect site workers and the public. This may include the preparation of a Soil Management Plan for Impacted Soils prior to project construction. If the Phase II ESA for the contaminant site indicates that contaminants are present at concentrations exceeding hazardous waste screening thresholds for contaminants in soil and/or groundwater (CCR Title 22,	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	Section 66261.24 Characteristics of Toxicity), the project applicant shall take appropriate steps to protect site workers and the public. This may include the completion of remediation at the project prior to onsite construction. The City shall review and approve the Phase I ESA and Phase II ESA prior to construction (i.e., demolition and grading).	
Impact HAZ-2: Development facilitated by the project would not result in the release of potentially hazardous materials within 0.25 mile of a school. There would be no impact.	No mitigation measures would be required.	No Impact
Impact HAZ-3: Development facilitated by the project would not be located on a site included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5. However, impacts could occur from unknown hazardous materials. Compliance with Mitigation Measure HAZ-1 would minimize impacts from development on previously unknown contaminated sites and impacts would be less than significant after mitigation.	Mitigation Measure HAZ-1 (see Impact HAZ-1).	Less than Significant
Impact HAZ-4: Development facilitated by the project would occur in the Napa County Airport Land Use Compatibility Zone D. Development would occur in compliance with the Napa County Airport Land Use Compatibility Plan and impacts would be further reduced through adherence to General Plan policies. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact HAZ-5: Development facilitated by the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant	No mitigation measures would be required.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Hydrology and Water Quality		
Impact HWQ-1: The project would not violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality. Individual projects would be required to comply with BMPs in accordance with State and local regulations and permit requirements, as well as Mitigation Measures HYD-1 and HYD-2. Impacts would be less than significant with mitigation.	*HYD-1 Water Pollution Prevention Plan* Prior to issuance of grading permits for the project, the applicant shall submit to the City of American Canyon for review and approval a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the statewide Construction General Permit. The SWPPP shall be designed to address the following objectives: (1) all pollutants and their sources (e.g., runoff), including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity, are controlled; (2) where not otherwise required to be under a Regional Water Quality Control Board (RWQCB) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated; (3) site Best Management Practices (BMPs) (e.g., silt fencing, street sweeping, routine inspection, etc.) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity; and (4) stabilization BMPs are installed to reduce or eliminate pollutants after construction are completed. The SWPPP shall be prepared by a qualified SWPPP developer. The SWPPP shall include the minimum BMPs required for the identified Risk Level. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association (CASQA) Stormwater Best Management Handbook–Construction or the California Department of Transportation (Caltrans) Stormwater Quality Handbook Construction Site BMPs Manual. The SWPPP shall be implemented during construction to the satisfaction of the City. *HYD-2 Stormwater Control Plan* Prior to the issuance of building permits, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The plan shall be developed using the California Stormwater Quality Association (CASQA) "New Development and Redevelopment Handbook" and include the applicable provisions of Section C.3 of the San Francisco Bay Regional Water Quality Control Board (RWQCB) Municipal Regional Permit (Order No. R2-2015-0049, NPDES Permit No. CAS612008 (or more recent permit). The Stormwater Control Plan shall identify pollution prevention measures and Best Management Practices (BMPs) to control stormwater pollution from operational activities and facilities and provide maintenance in perpetuity. The Stormwater Control Plan shall include Low Impact Development (LID) design concepts, as well as concepts that accomplish a "first flush" objective that would remove contaminants from the first 2 inches of stormwater before it enters area waterways. The project applicant shall also prepare and submit an Operations and Maintenance Agreement to the City, identifying procedures to ensure stormwater quality control measures work properly during operations.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Impact HWQ-2: The project would not interfere substantially with groundwater recharge such that sustainable groundwater management of the basin would be impeded. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact HWQ-3: The project could alter drainage patterns but would not result in substantial erosion or siltation after compliance with existing regulations and implementation of Mitigation Measures HYD-1 and HYD-2. Impacts would be less than significant with mitigation.	Mitigation Measures HYD-1 and HYD-2 (see Impact HYD-1).	Less than Significant
Impact HWQ-5: The project site is not within an area at risk from inundation by flood hazard, seiche, or tsunami and would not risk the release of pollutants due to project inundation. The project is not in a flood hazard zone and would not impede or redirect flood flows. There would be no impact.	No mitigation measures would be required.	No Impact
Impact HWQ-6: The project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Land Use and Planning		
Impact LU-1: The project would not physically divide an established community and there would be no impact.	No mitigation measures would be required.	No Impact
Impact LU-2: The project would not result in a significant environmental impact due to a conflict with a plan adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.	No additional mitigation measures for land use and planning would be required beyond those identified throughout this EIR, including Mitigation Measures AES-1 and AES-2; AQ-1 through AQ-3; BIO-1 through BIO-7; CUL-1 through CUL-5; GEO-1 and GEO-2; GHG-1 through GHG-5; HAZ-1; HYD-1 and HYD-2; PSR-1; and NOI-1 through NOI-3.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Noise		
Impact NOI-1: Project Construction would result in a temporary increase in ambient noise. Implementation of Mitigation Measures NOI-1 and NOI-2 would reduce construction noise levels. Therefore, impacts generated by temporary construction noise would be less than significant with mitigation.	*NOI-1 Construction Noise Reduction Measures* The following measures shall be implemented where future development construction sites are located within 150 feet of a sensitive receiver: 1. Mufflers. During excavation and grading construction phases, all construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers, consistent with manufacturers' standards. 2. Stationary Equipment. All stationary construction equipment shall be placed so that emitted noise is directed away from the nearest sensitive receivers. 3. Shielding and Silencing. Power construction equipment (including combustion engines), fixed or mobile, shall be equipped with noise shielding and silencing devices consistent with manufacturer's standards or the Best Available Control Technology. Equipment shall be properly maintained, and the project applicant or owner shall require any construction contractor to keep documentation on-site during any earthwork or construction activities demonstrating that the equipment has been maintained in accordance with manufacturer's specifications. 4. Construction Staging Areas. Construction staging areas shall be located as far from noise-sensitive uses as reasonably possible and feasible in consideration of site boundaries, topography, intervening roads and uses, and operational constraints. 5. Smart Back-Up Alarms. Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction and in accordance with all applicable safety laws. 6. Equipment Idling. Construction vehicles and equipment shall not be left idling for longer than five minutes when not in use. 7. Workers' Radios. All noise from workers' radios, including any on-site music, shall be controlled to a point that they are not audible at off-site noise-sensitive uses. 8. Noise Complaint Response. Project applicants shall designate an on-site construction project manager who shall be responsible for responding to any complaints about construction noise. This person shall be responsible for responding to concerns of neighboring properties about construction noise disturbance and shall be available for responding to any construction noise complaints during the hours that construction is to take place. They shall also be responsible for determining the cause of the noise complaint (e.g., bad silencer) and shall require that reasonable measures be implemented to correct the problem. A toll-free telephone number and email address shall be posted in a highly visible manner on the construction site at all times and provided in all notices (mailed, online website, and construction	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	site postings) for receiving questions or complaints during construction and shall also include procedures requiring that the on-site construction manager to respond to callers and email messages. The on-site construction project manager shall be required to track complaints pertaining to construction noise, ongoing throughout demolition, grading, and/or construction and shall notify the City of each complaint occurrence. 9. Temporary Noise Barriers. For non-pile driving construction activity within 150 feet of residences, erect temporary noise barriers at the edge of the construction site closest to residences. Temporary noise barriers shall be constructed with solid materials (e.g., wood) with a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the barrier and a height of at least 12 feet. If a sound blanket is used, barriers shall be constructed with solid material with a density of at least 1 pound per square foot with no gaps from the ground to the top of the barrier and be lined on the construction side with acoustical blanket, curtain or equivalent absorptive material rated sound transmission class (STC) 32 or higher. Plans indicating compliance with these noise reduction measures shall be provided to the City for review and concurrence prior to project approval. *NOI-2 Construction Noise Reduction Measures During Pile Driving* The following measures shall be implemented during pile driving: 1. Alternative Pile Methods. For pile driving, the use of caisson drilling (drill piles), vibratory pile drivers, oscillating or rotating pile installation methods, and jetting or partial jetting of piles into place using a water injection at the tip of the pile shall be used instead of impact pile driving, where feasible. 2. Scheduling. Pile driving will be scheduled to have the least impact on nearby sensitive receivers. 3. Shrouding. Pile drivers with the best available noise control technology will be used. For example, pile driving noise control may be achieved by shrouding the pile hammer point of impact, by placing resilient padding directly on top of the pile cap, and/or by reducing exhaust noise with a sound-absorbing muffler. Plans indicating compliance with these pile driving measures shall be provided to the City for review and concurrence prior to project approval.	

Impact	Mitigation Measure (s)	Residual Impact
Impact NOI-2: Development facilitated by the project could include mechanical equipment (i.e., HVAC) and on-site activities would be required to comply with applicable noise standards in the American Canyon Municipal Code but may still exceed noise thresholds for off-site sensitive receivers. Therefore, operational stationary source impacts would be less than significant with mitigation. Furthermore, while development would generate an increase in traffic noise, the increase would not be significant. Therefore, permanent traffic noise increases due to project operation would be less than significant.	*NOI-3 Operational Stationary Source Noise Control Analysis and Measures* Prior to the issuance of a building permit for projects adjacent to the property lines of noise-sensitive uses that could exceed noise standards from the American Canyon Municipal Code or General Plan, a noise analysis shall be conducted to assess and mitigate potential noise and impacts related to the operations of the project. The noise analysis shall be conducted by a qualified and experienced acoustical consultant or engineer and shall follow the latest CEQA guidelines, practices, and precedents. Measures to reduce operational stationary sources to acceptable levels include, but are not limited to, operational hour restrictions, equipment optimization, shielding, mufflers, acoustical louvers, sound blankets, and sound walls. The noise analysis and recommended measures to implement shall be provided to the City for review and concurrence prior to project approval.	Less than Significant
Impact NOI-3: Project construction would generate temporary vibration in the project area. However, construction-related vibration impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact NOI-4: The project is outside the Napa County Airport noise contours and the project would not expose people working in the project site to excessive noise levels. No impact would occur.	No mitigation measures would be required.	No Impact
Population and Housing		
Impact POP-1: The project would not directly or indirectly induce substantial unplanned population growth. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact POP-2: The project would not displace substantial numbers of existing people or housing and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Public Services and Recreation		
Impact PSR-1: The project could result in the need for additional fire facilities; however, Mitigation Measure PSR-1 would require measures to maintain adequate fire service. Impacts would be less than significant with mitigation.	*PSR-1 Fire Facilities Coordination* After the City receives an application for development within the project site, the City shall provide the American Canyon Fire Protection District (ACFPD) with the development application. If the ACFPD determines that an additional fire station is needed, the City shall assist the District by implementing current fire service-related mitigation fee programs, as well as future fire service-related mitigation fee programs developed by the ACFPD, which shall provide funding for the additional station.	Less than Significant
Impact PSR-2: The project would be adequately served by existing police protection services. Payment of public safety taxes and development impact fees would minimize potential impacts to police service facilities and performance and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact PSR-3: The project would be adequately served by existing park facilities. The project would not include residence or induce growth in population that would utilize park facilities. Thus, impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact PSR-4: The project would not result in substantial adverse physical impacts associated with the provision of new or physically altered public facilities. No new facilities would be required to accommodate the project and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Transportation		
Impact TRA-1: The project would not conflict with a program, plan, ordinance or policy addressing the circulation system and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Impact TRA-2: The rate of VMT per job that would be generated by the project is anticipated to be lower than the significance threshold. The project would not conflict with or be inconsistent with CEQA Guidelines 15064.3(b) and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact TRA-3: The project would not substantially increase hazards due to a geometric design feature and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact TRA-4: The project would not substantially increase hazards due to a geometric design feature and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Tribal Cultural Resources		
Impact TCR-1: The Project could adversely impact Tribal Cultural Resources. Impacts would be less than significant through consultation conducted pursuant to AB 52 and implementation of mitigation.	Mitigation Measures CUL-2 through CUL-5 (see Impacts CUL-2 and CUL-3).	Less than Significant
Utilities and Service Systems		
Impact UTL-1: The project would increase demand for water, wastewater, electric power, telecommunications, and stormwater drainage; however, no additional relocation or construction of utility services will be required to service the project beyond connections to existing utilities. The project would not increase demand on natural gas. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
Impact UTL-2: The project would increase demand for water; however, with adherence to the ZWF Policy, water supplies would be sufficient to serve the project and reasonably foreseeable future development in normal, dry, and multiple dry years. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact UTL-3: The project would increase demand for wastewater treatment but there is adequate wastewater treatment capacity to serve the project's projected demand in addition to existing commitments. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact UTL-4: The project would not generate solid waste in excess of state or local standards, would not exceed the capacity of local infrastructure, and would not impair the attainment of solid waste reduction goals. Impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Wildfire		
Impact WF-1: The project would not impair an emergency response plan and impacts would be less than significant.	No mitigation measures would be required.	Less than Significant
Impact WF-2: The project could expose employees and structures to wildfire risk; however, wildfire risks would be reduced with mitigation and impacts would be less than significant with mitigation.	*WF-1 Wildfire Risk Reduction During Construction* Prior to issuance of a grading or building permit, whichever occurs first, the applicant shall submit documentation that they will implement the following measures to reduce risk of loss, injury, or death from wildfire during construction: 1. Construction equipment powered by internal combustion engines shall be equipped with spark arresters. The spark arresters shall be maintained pursuant to manufacturer recommendations to ensure adequate performance. 2. Certain project construction activities with potential to ignite wildfires during red-flag warnings issued by the National Weather Service for the project site location shall be prohibited. Example activities that shall be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings.	Less than Significant

Impact	Mitigation Measure (s)	Residual Impact
	3. Fire extinguishers shall be required to be onsite during construction. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher. *WF-2 Fire Suppression Requirements* Prior to issuance of improvement plans, the applicant shall submit plans that demonstrate all fire hydrants on the project site satisfy the Fire District's minimum fire flow requirements. *WF-3 California Building Code Chapter 7A Compliance* Prior to issuance of a building permit, the applicant shall submit plans that demonstrate compliance with Chapter 7A of the California Building Code. *WF-4 Fire Resistant Vegetation and Landscaping* Prior to issuance of a building permit, the applicant shall submit landscape plans prepared by a registered Landscape Architect that are consistent with applicable Building and Fire Codes at the time the building permit is issued.	
Impact WF-3: The project would include the installation of utilities and a roadway extension (Newell Drive Extension). However, impacts would be less than significant because the Newell Drive Extension would allow for simultaneous egress and ingress during an evacuation, which would not exacerbate a fire risk.	No mitigation measures would be required.	Less than Significant
Impact WF-4: The project site is relatively flat and not downslope from a hillside that could result in a landslide following a wildfire. There would be adequate drainage on the project site to prevent flooding. Wildfire risks from flooding or landslides would be less than significant.	No mitigation measures would be required.	Less than Significant

1 Introduction

This Environmental Impact Report (EIR) examines the potential environmental effects of the City of American Canyon's (City) proposed Watson Lane Annexation Project (hereafter also referred to as "project"). The environmental review process for the project, and legal basis for preparing an EIR, are described below.

1.1 Environmental Impact Report Background

This document is an EIR that evaluates the potential environmental impacts associated with implementation of the project. This section of the EIR:

- Provides an overview of the project's background
- Describes the purpose of and legal authority of the EIR
- Summarizes the scope and content of the EIR
- Lists lead, responsible, and trustee agencies for the EIR
- Describes the intended uses of the EIR
- Provides a synopsis of the environmental review process required under the California Environmental Quality Act (CEQA)

The contents of other EIR sections are as follows:

- Section 2, *Project Description*, provides a detailed discussion of the project
- Section 3, *Environmental Setting*, describes the general environmental setting for the project site
- Section 4, *Environmental Impact Analysis*, describes the potential environmental effects associated with the project
- Section 5, *Alternatives*, discusses alternatives to the project, including the CEQA-required "no project" alternative
- Section 6, *Other CEQA Required Sections*, discusses issues such as growth inducement and significant irreversible environmental effects
- Section 7, *References and Report Preparers*, lists informational sources for the EIR and persons involved in the preparation of the document

In addition, this EIR also includes the following Appendices:

- Appendix A. Notice of Preparation and Scoping Comments Received
- Appendix B. Biological Resources Assessment
- Appendix C. Supporting Noise Information

1.2 Project Overview

The project involves annexation of 83 acres of Napa County land within the City's sphere of influence. The annexation area requires amendment of the General Plan to redesignate the land use and pre-zone certain parcels. Additionally, consistent with the City's Circulation Element, Newell Drive would be extended through the annexation area to connect State Route 29 with the planned extension of Newell Drive through Watson Ranch. The project is described in detail in Section 2, *Project Description*.

1.3 Purpose and Legal Authority

Proposed General Plan Amendments and Pre-zoning requires discretionary approval of the American Canyon City Council; therefore, the project is subject to the environmental review requirements of CEQA. The City also contemplates Napa County Local Agency Formation Commission (LAFCo) approval of annexation within the Sphere of Influence. This EIR has been prepared in accordance with CEQA and the CEQA Guidelines. In accordance with CEQA Guidelines Section 15121(a) (California Code of Regulations, Title 14, Division 6, Chapter 3), the purpose of an EIR is to:

> Inform public agency decision-makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

This EIR fulfills the requirements for a Program EIR. Although the legally required contents of a Program EIR are the same as a Project EIR, Program EIRs are by necessity more conceptual and may contain a more general discussion of impacts, alternatives, and mitigation measures than a Project EIR. As provided in CEQA Guidelines Section 15168, a Program EIR may be prepared on a series of actions that may be characterized as one large project. Use of a Program EIR provides the City (as Lead Agency) with the opportunity to consider broad policy alternatives and program-wide mitigation measures and provides the City with greater flexibility to address environmental issues and/or cumulative impacts on a comprehensive basis. Agencies generally prepare Program EIRs for programs or a series of related actions that are linked geographically, are logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program, or are individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways. By its nature, a Program EIR considers the broad effects associated with implementing a program (such as an annexation) and does not, and is not intended to, examine the specific environmental effects associated with projects that may be accommodated by the provisions of the annexation process.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine what, if any, additional CEQA documentation needs to be prepared. If the Program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities could be found to be within the Program EIR scope and additional environmental documentation may not be required (CEQA Guidelines Section 15168(c)). When a Lead agency relies on a Program EIR for a subsequent activity, it must incorporate applicable mitigation measures and alternatives developed in the Program EIR into the subsequent activities (CEQA Guidelines Section 15168(c)(3)). If a subsequent activity would have effects not contemplated or not within the scope of the Program EIR, the Lead Agency must prepare a new Initial Study leading to a Negative

Declaration, Mitigated Negative Declaration, or a project level EIR. In this case, the Program EIR still serves a valuable purpose as the first-tier environmental analysis. CEQA Guidelines Section 15168(b) encourage the use of Program EIRs, citing five advantages:

- Provide a more exhaustive consideration of impacts and alternatives than would be practical in an individual EIR.
- Focus on cumulative impacts that might be slighted in a case-by-case analysis.
- Avoid continual reconsideration of recurring policy issues.
- Consider broad policy alternatives and programmatic mitigation measures at an early stage when the agency has greater flexibility to deal with them.
- Reduce paperwork by encouraging the reuse of data (through tiering).

As a wide-ranging environmental document, the Program EIR uses expansive thresholds as compared to the project-level thresholds that might be used for an EIR on a specific development project. It should not be assumed that impacts determined not to be significant at a program level would not be significant at a project level. In other words, determination that implementation of the project as a program would not have a significant environmental effect does not necessarily mean that an individual project would not have significant effects based on project-level CEQA thresholds, even if the future development is consistent with the project.

This EIR has been prepared to analyze potentially significant environmental impacts associated with future development resulting from implementation of the project, as well as the extension of Newell Drive, and provides appropriate and feasible mitigation measures or project alternatives that would minimize or eliminate these impacts. Additionally, this EIR provides the primary source of environmental information for the City of American Canyon, which is the Lead Agency, to use when considering approval and implementation of the project.

This EIR is intended to provide decision-makers and the public with information that enables intelligent consideration of the environmental consequences of the project. This EIR identifies significant or potentially significant environmental effects, as well as ways in which those impacts could be reduced to less-than-significant levels, whether through the imposition of mitigation measures or through the implementation of specific alternatives to the project. In a practical sense, this document functions as a tool for fact-finding, allowing concerned citizens and agency staff an opportunity to collectively review and evaluate baseline conditions and project impacts through a process of full disclosure.

1.3.1 Streamlining Under CEQA Guidelines 15183

CEQA mandates that projects consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects peculiar to the project or its site (CEQA Guidelines 15183). This streamlines review of such projects and reduces the need to prepare repetitive environmental studies. Projects may be eligible for this process if the following findings can be made:

1. The project is consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified.
2. There are no project-specific effects which are peculiar to the project or its site.
3. There are no project-specific impacts which the EIR failed to analyze as significant effects.

4. There are no potentially significant off-site and/or cumulative impacts which the EIR failed to evaluate.
5. There is no substantial new information resulting in more severe impacts than anticipated by the EIR.

The intent of this Program EIR is to enable development facilitated by the project to use CEQA Guidelines Section 15183 to streamline future CEQA compliance. Projects consistent with City and LAFCo regulations, including zoning, would require no additional CEQA review, but applicants would be responsible for implementing applicable mitigation measures, including site-specific environmental studies. The recommended mitigation measures, once adopted by the City Council, will be implemented on a project-specific basis as part of the entitlement or building permit application process.

1.3.2 Other Tiering Opportunities

Other projects proposed or approved by a lead agency may use this Program EIR for CEQA tiering (Public Resource Code [PRC] Sections 21068.5, 21093-21094, CEQA Guidelines 15152, 15385). Tiering is the process by which general matters and environmental effects in an EIR prepared for a policy, plan, program, or ordinance are relied upon by a narrower second-tier or site-specific EIR (PRC Section 21068.5). Moreover, by tiering from this Program EIR (once certified by the City Council), a later tiered EIR would not be required to examine effects that (1) were mitigated or avoided in this EIR, (2) were examined at a sufficient level of detail in this Program EIR to enable those effects to be mitigated or avoided by site specific revisions, the imposition of conditions, or by other means in connection with the approval of the later project (PRC Section 21094).

1.4 Public Review and Participation Process

The City of American distributed a Notice of Preparation (NOP) of the EIR for a 30-day agency and public review period starting on September 7, 2022 and ending on October 7, 2022. In addition, the City held an EIR Scoping Meeting on September 21, 2022. The meeting, held from 2:00 PM to 2:30 PM, provided information about the project to members of public agencies, interested stakeholders and residents/community members. The meeting was held virtually through an online meeting platform and a call-in number. The City received letters from agencies and the public in response to the NOP during the public review period and oral comments during the Scoping Meeting. The NOP is presented in Appendix A of this EIR, along with the NOP responses received. Table 1-1 on the following page summarizes the content of the letters and oral comments and where the issues raised are addressed in the EIR.

Table 1-1 NOP Comments and EIR Response

Commenter	Comment/Request	How and Where It Was Addressed
Agency Comments		
California Department of Transportation (Caltrans)	Inquired whether a transportation impact analysis or study will be prepared for the project.	Section 4.15, *Transportation* of the EIR includes the transportation analysis for the project.
Native American Heritage Commission (NAHC)	States that the proposed project is subject to the requirements and provisions under Assembly Bill 52 and State Bill 18 for tribal cultural resources.	Consultation required by AB 52 and SB 18 were carried out by the City of American Canyon. Potential impacts to cultural resources and tribal cultural resources are discussed in Section 4.5, *Cultural Resources*, and Section 4.16, *Tribal Cultural Resources*, of this EIR.
California Department of Fish and Wildlife	Requested that the project description include details regarding land use changes, footprints of project features, proposed buildings/structures, operational features, and construction schedules.	Since this is a programmatic EIR, specific details were not available for the environmental analysis. However, sufficient project details are provided in Section 2, *Project Description*.
	Advised that the EIR must regulatory requirements related to California Endangered Species Act and Native Plant Protection Act, nesting birds, fully protected species (included in Attachment 1 of the comment letter), and lake and streambed alteration agreement.	Section 4.4, *Biological Resources*, includes descriptions of all relevant regulatory requirements and their applications to the project. Additionally, the section includes a list of special-status species and plants that may be impacted by the project.
	Requested that the EIR provide sufficient environmental setting information related to special-status plant, fish and wildlife species, sensitive natural communities, riparian habitats, or stream and wetlands.	Baseline conditions of biological resources are included in Section 4.4, *Biological Resources.*
	The EIR should discuss impacts that reduce open spaces or agricultural land, encroach into riparian habitats or wetlands, impact special-status species, loss of habitat, disturbance to habitat, or obstruction of movement corridors.	These impacts to biological resources are discussed in Section 4.4, *Biological Resources*.
Public Comments		
Charles Lemmon	Requested a scoping document with a plan for the annexation area.	The NOP, included as Appendix A, includes figures with proposed land use designations and pre-zoning for the annexation area.
	Inquires whether the potential hotel/visitor serving site would be on Watson Lane.	The hotel/visitor-serving use would occur within the Town Center pre-zoned area. As shown on Figure 2-6 of Section 2, *Project Description*, the Town Center pre-zoning would be along the north-south segment of Watson Lane.
	Concerned that the Newell Drive extension would encourage more traffic on Paoli Loop if there were congestion or an accident on State Route 29.	Traffic and congestion are not required topics under CEQA. However, transportation impacts are discussed in Section 4.15, *Transportation.*

Commenter	Comment/Request	How and Where It Was Addressed
John Dutra	The commentor requests that his property is not zoned for public use and further requests information on how the annexation area would be zoned.	Proposed pre-zoning of the annexation area is shown on Figure 2-6 of Section 2, *Project Description*.
Ladeena Ford	The commentor expresses concern that the proposed pre-zoning does not match an earlier 2019 proposal and questions whether the proposed residential use conflicts with the Napa County Airport Compatibility Zones.	Issues pertaining to the Napa County Airport Land Use Compatibility Plan are discussed in Section 4.9, *Hazards and Hazardous Materials* and Section 4.11, *Land Use and Planning.*
	The commentor inquires whether sewer would be extended into the annexation area.	Sewer services and other utilities are discussed in Section 4.17, *Utilities and Service Systems*.

1.5 Scope and Content

As discussed in Section 1.4, *Public Review and Participation Process*, an NOP was prepared and circulated (Appendix A), and responses received on the NOP were considered when setting the scope and content of the environmental information in the Program EIR. Sections 4.1 through 4.18 address the resource areas outlined in the bullet points below. Section 5, *Other CEQA Required Discussions*, covers topics including growth-inducing effects, irreversible environmental effects, and significant and unavoidable impacts. Environmental topic areas addressed in this Program EIR include the following:

1. Aesthetics
2. Agriculture and Forestry Resources
3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Energy
7. Geology and Soils
8. Greenhouse Gas Emissions
9. Hazards and Hazardous Materials
10. Hydrology and Water Quality
11. Land Use and Planning
12. Noise
13. Population and Housing
14. Public Services and Recreation
15. Transportation
16. Tribal Cultural Resources
17. Utilities and Service Systems
18. Wildfire

This EIR evaluates potential impacts in each of these areas. The focus of this EIR is to:

- Provide information about the project for consideration by the City Council in its selection of the project, an alternative to the project, or a combination of various elements from the project and its alternatives, for approval.
- Review and evaluate the potentially significant environmental impacts that could occur because of the project.
- Identify feasible mitigation measures that may be incorporated to reduce or eliminate potentially significant effects.
- Disclose any potential growth-inducing and/or cumulative impacts associated with the project.

- Examine a reasonable range of alternatives that could feasibly attain the basic objectives of the project, while eliminating and/or reducing some or all of its potentially significant adverse environmental effects.

Two resources listed on Appendix G of the CEQA Guidelines – Mineral Resources and Schools – were determined not to be significantly affected by the project and are analyzed with brevity within Section 4.19, *Effects Found Not to be Significant*.

1.6 Lead, Responsible, and Trustee Agencies

The City of American Canyon is the lead agency under CEQA for this EIR because it has primary discretionary authority to approve the project. CEQA Guidelines Section 15381 defines responsible agencies as other public agencies that are responsible for carrying out/implementing a specific component of a project or for approving a project (such as an annexation) that implements the goals and policies of a General Plan. Prior to annexation, the LAFCo must approve the City's annexation application, which City Council directed City staff to prepare in September 2017. Napa County LAFCo requires preparation of CEQA documentation prior to annexation and identifies five issue areas of local interest to address in the CEQA documentation. Those issues include cumulative and regional impacts, impacts to public services, conversion of prime agricultural lands, consistency with general and specific plans, and availability of affordable housing. These issues are addressed in this EIR. Napa County LAFCo may use this EIR to approve the City's proposed annexation.

Trustee agencies have jurisdiction over certain resources held in trust for the people of California but do not have a legal authority over approving or carrying out the project. CEQA Guidelines Section 15386 designates four agencies as trustee agencies: CDFW with regards to fish and wildlife, native plants designated as rare or endangered, game refuges, and ecological reserves; the State Lands Commission, with regard to state-owned "sovereign" lands, such as the beds of navigable waters and State school lands; the California Department of Parks and Recreation, with regard to units of the State park system; and, the University of California, with regard to sites within the Natural Land and Water Reserves System. The CDFW, due to the potential for rare or endangered species, is the only trustee agency for the project.

The Napa County Airport Land Use Commission is an advisory agency for the project. Most of the project site lays within Zone D of the Napa County Airport Land Use Compatibility Zones, with the remainder in Zone E. Land within Airport Land Use Compatibility Zones requires review from the Airport Land Use Commission.

The California Public Utilities Commission (CPUC) governs railroad crossings. The project is proposing the Newell Drive Extension, which include an overcrossing over the Union Pacific Railroad. A permit is required by the CPUC for the Newell Drive Extension overcrossing.

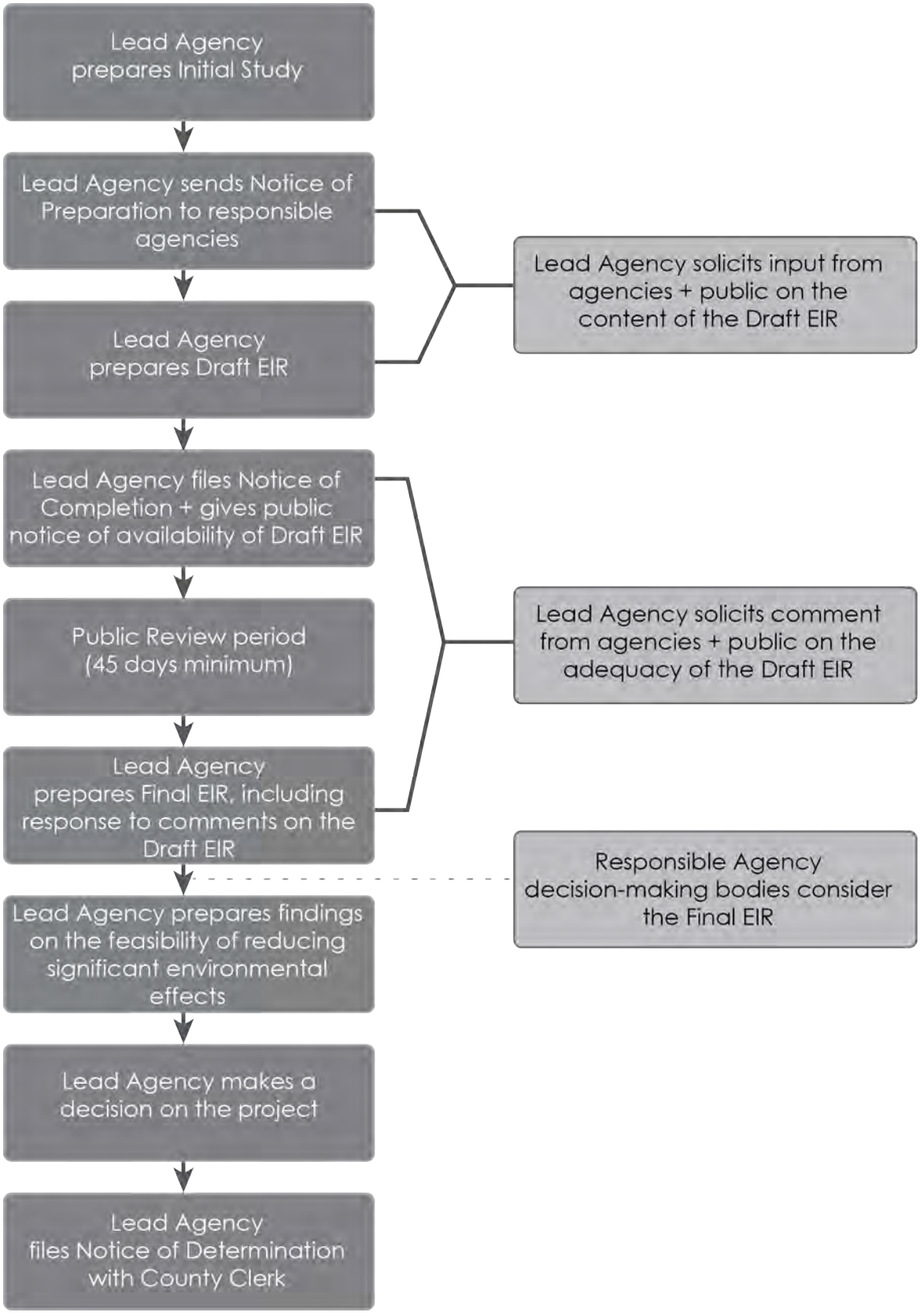
1.7 Environmental Review Process

The environmental impact review process, as required under CEQA, is summarized below and illustrated in Figure 1-1. The steps are presented in sequential order.

1. **Notice of Preparation (NOP) and Initial Study**. After deciding that an EIR is required, the lead agency (City of American Canyon) must file a NOP soliciting input on the EIR scope to the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (CEQA Guidelines Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days.
2. **Draft EIR Prepared.** The Draft EIR must contain: a) table of contents or index; b) summary; c) project description; d) environmental setting; e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) a discussion of alternatives; g) mitigation measures; and h) discussion of irreversible changes.
3. **Public Notice and Review.** A lead agency must prepare a Public Notice of Availability (NOA) of an EIR. The NOA must be placed in the County Clerk's office for 30 days (Public Resources Code Section 21092) and sent to anyone requesting it. Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the project site; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must consult with and request comments on the Draft EIR from responsible and trustee agencies, and adjacent cities and counties. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days, unless a shorter period is approved by the Clearinghouse (Public Resources Code 21091). Distribution of the Draft EIR may be required through the State Clearinghouse. This EIR will be circulated for a 45-day public review and will be sent to the State Clearinghouse.
4. **Notice of Completion.** A lead agency must file a Notice of Completion (NOC) with the State Clearinghouse as soon as it completes a Draft EIR.
5. **Final EIR.** A Final EIR must include: a) the Draft EIR; b) copies of comments received during public review; c) list of persons and entities commenting; and d) responses to comments.
6. **Certification of Final EIR.** Prior to making a decision on a proposed project, the lead agency must certify that: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the lead agency; and c) the decision making body reviewed and considered the information in the Final EIR prior to approving a project (CEQA Guidelines Section 15090).
7. **Lead Agency Project Decision.** The lead agency may a) disapprove the project because of its significant environmental effects; b) require changes to the project to reduce or avoid significant environmental effects; or c) approve the project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (CEQA Guidelines Sections 15042 and 15043).
8. **Findings/Statement of Overriding Considerations**. For each significant impact of the project identified in the EIR, the lead agency must find, based on substantial evidence, that either: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (CEQA Guidelines Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.

9. **Mitigation Monitoring Reporting Program.** When the lead agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
10. **Notice of Determination (NOD).** The lead agency must file a NOD after deciding to approve a project for which an EIR is prepared (CEQA Guidelines Section 15094). A local agency must file the NOD with the County Clerk. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30-day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

Figure 1-1 Environmental Review Process



2 Project Description

This section describes the proposed project, including the project applicant and lead agency, the project site and surrounding land uses, major project characteristics, project objectives, and discretionary actions needed for approval.

2.1 Project Applicant

City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, California 94503

2.2 Lead Agency Contact Person

Sean Kennings, Planning Consultant
LAK Associates, LLC
P.O. Box 7043
Corte Madera, California 94976
(415) 533-2111

2.3 Project Location

The area proposed for annexation (annexation area) is located in unincorporated Napa County within the Sphere of Influence (SOI) of the City of American Canyon (City). The project's regional location is shown in Figure 2-1. The annexation site is surrounded by City limits to the east, west, and south. To the east of the annexation site, past the Union Pacific Railroad (UPRR) are existing agricultural uses in unincorporated Napa County, two residential parcels, and the Watson Ranch Specific Plan within American Canyon. Immediately west of the annexation area is Paoli Loop Road and State Route (SR) 29, as well as existing industrial uses. The annexation area is bounded to the south by the UPRR and vacant land and mixed residential/commercial uses further south. North of the annexation areas are existing agricultural uses in unincorporated areas of Napa County (County). The project location and surrounding jurisdictional boundaries are shown in Figure 2-2.

The annexation area contains 17 assessor parcel numbers (APNs) and a portion of the UPRR right-of-way running approximately northeast by southwest at the eastern boundary of the annexation area. APNs are listed in Table 2-1. A map showing all parcels is shown in Figure 2-3.

Figure 2-1 Regional Location

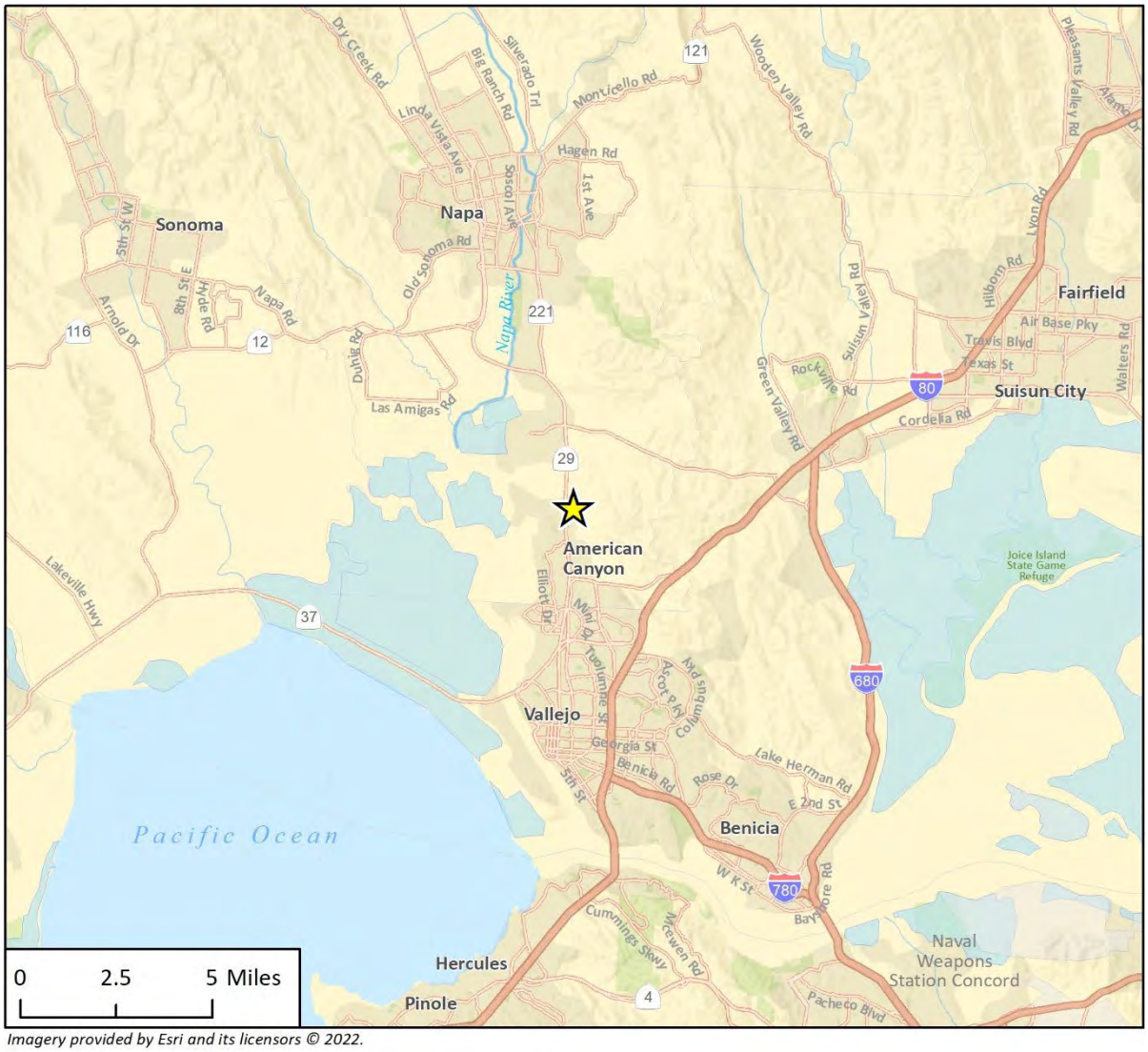


Figure 2-2 Project Site Location

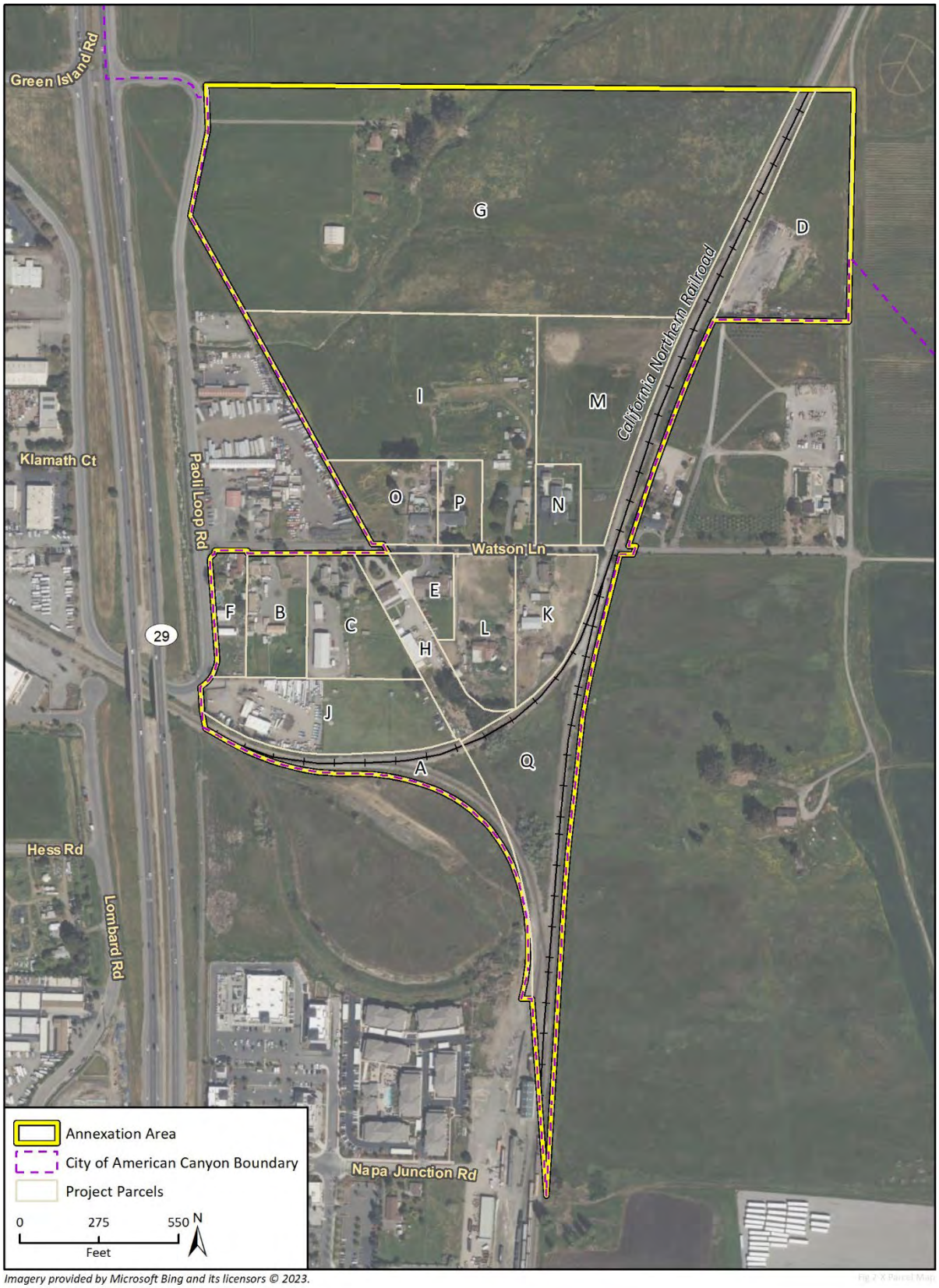


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Table 2-1 Proposed Parcels for Annexation

Parcel ID	Accessor Parcel Number	Acres	Address
A	059-020-036	3.05	N/A
B	057-120-014	2.1	165 Watson Lane
C	057-120-015	2.88	193 Watson Lane
D	057-120-017	5.6	N/A
E	057-120-028	1	225 Watson Lane
F	057-120-034	1.18	157 Watson Lane
G	057-120-036	31.12	4000 Paoli Loop
H	057-120-041	1.72	205 Watson Lane
I	057-120-045	10.4	254 Watson Lane
J	057-120-047	4.58	4400 Paoli Loop
K	057-120-048	2.03	265 Watson Lane
L	057-120-049	2.49	245 Watson Lane
M	057-120-050	5.57	N/A
N	057-120-051	1	260 Watson Lane
O	057-180-014	2.1	165 Watson Lane
P	057-180-015	2.88	193 Watson Lane
Q	A portion of the UPRR right-of-way running approximately northeast by southwest on the eastern boundary of annexation area	3.3	N/A
	Total	**83**	**N/A**

Figure 2-3 Parcel Map



2.4 Existing Site Characteristics

2.4.1 Current Land Use Designation and Zoning

The annexation area contains a mix of undeveloped land, residential uses, outdoor storage, and UPRR right-of-way within the SOI of the City. Land use designations in the City's General Plan include Agriculture, Town Center, and Residential Estate, as shown on Figure 2-4.

Most of the land north of Watson Lane and west of the UPRR right-of-way is designated Agriculture with a Special Study overlay. The parcel east of the UPRR right-of-way is designated Town Center. The land north and south of Watson Lane is designated Residential Estate. The UPRR right-of-way does not have a City General Plan land use designation. In the County General Plan most of the annexation area is designated Industrial, while the area east of the UPRR and UPRR right-of-way are designated Agriculture-Watershed.

Most of the annexation area is not pre-zoned by the City. A small section, east of the UPRR right-of-way is designated Town Center in the City's General Plan, and pre-zoned Town Center, as is shown on Figure 2-5.

2.4.2 Existing Land Uses

The annexation area is approximately 83 acres. The northern portion is largely undeveloped, except for a farmhouse and accessory outbuildings. The central and southern portion includes 13 residential lots, varying in size from 1 to 10 acres. The residential parcel in the southwest corner has a conditional use permit issued by the County for outdoor storage. All residential lots are served with City potable water. Most of the residential lots lack municipal sewer service. The parcel northeast of the UPRR is a site with outdoor truck and material storage. The UPRR right-of-way in the southeast portion accommodates an active rail use.

2.4.3 Surrounding Land Uses

The annexation area is surrounded by industrial, commercial, residential, or agricultural uses. To the north and east are residential and agricultural lands. To the west are industrial uses beyond SR 29 within the City of American Canyon. Immediately to the south is vacant land, beyond which are residential/commercial uses.

2.5 Project Characteristics

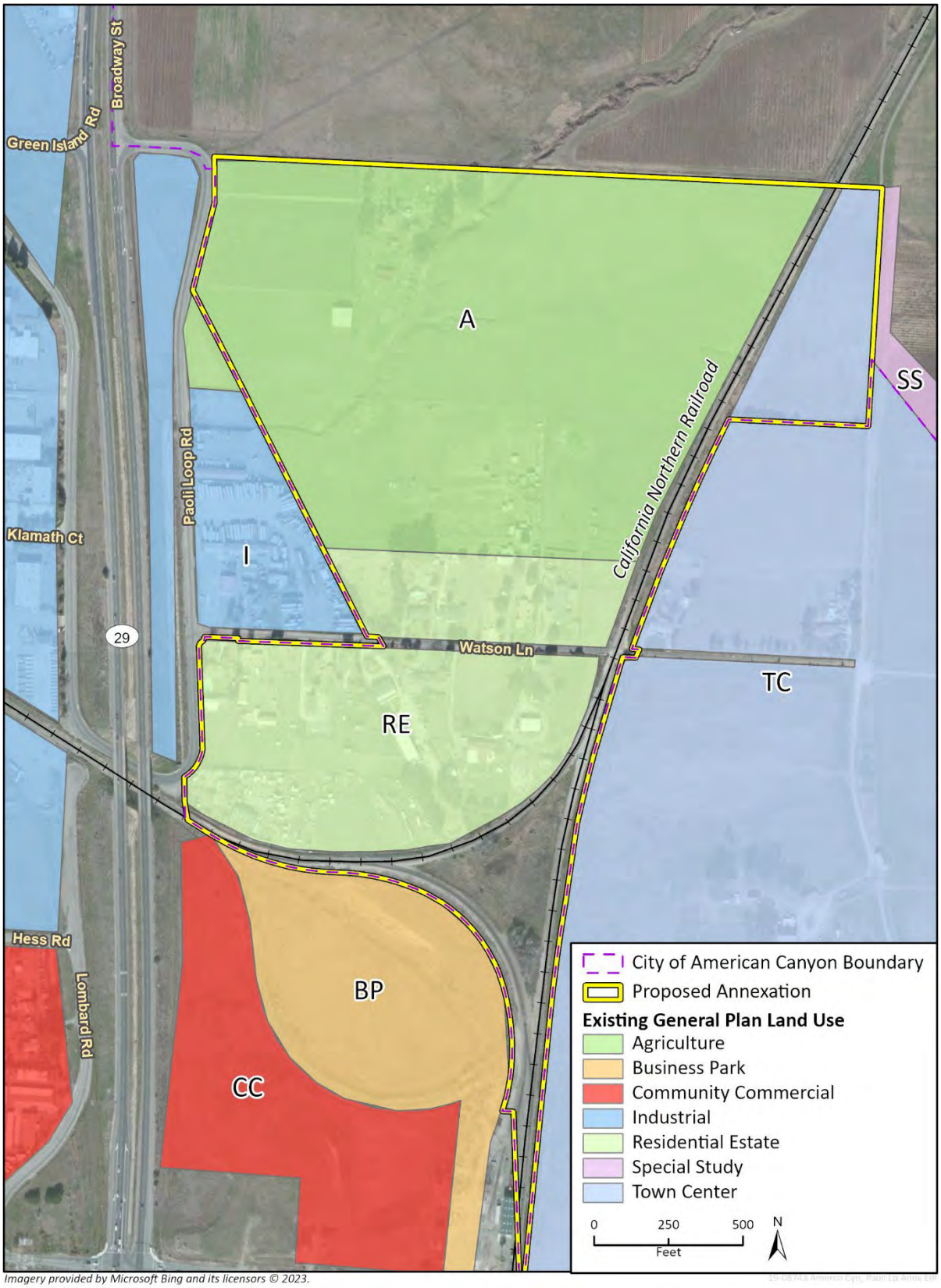
The project would annex the entire 83-acre SOI area into the City of American Canyon, pending amendments to the City's General Plan and zoning ordinance, and approval from the Napa County Local Agency Formation Commission (LAFCo).

2.5.1 Proposed Land Use Designation and Pre-Zoning

Proposed General Plan Amendment

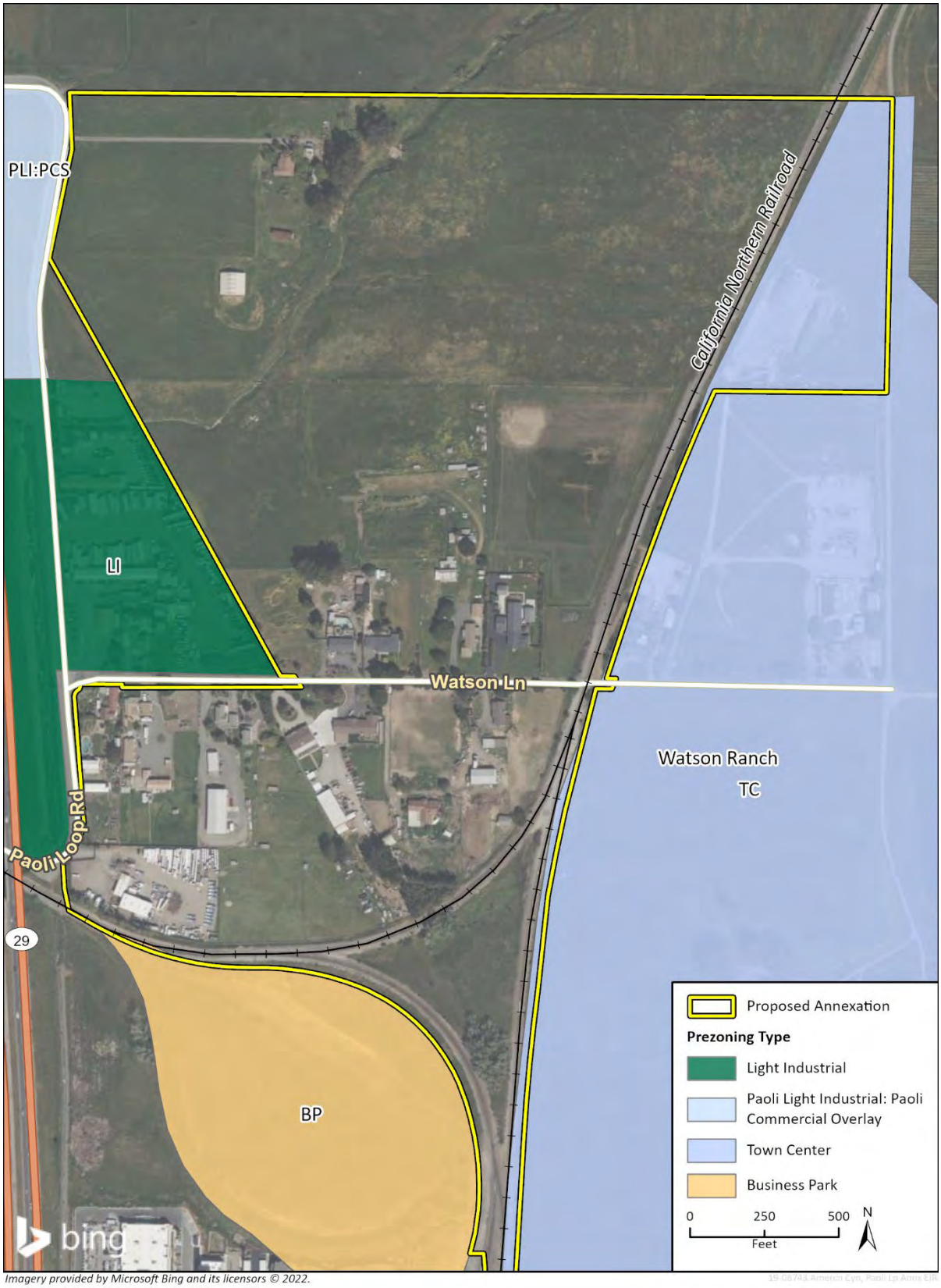
City General Plan designation for land currently designated Agriculture would be changed to Industrial. The remaining land would not be re-designated, as shown in Figure 2-6.

Figure 2-4 Existing City of American Canyon Land Use Designations



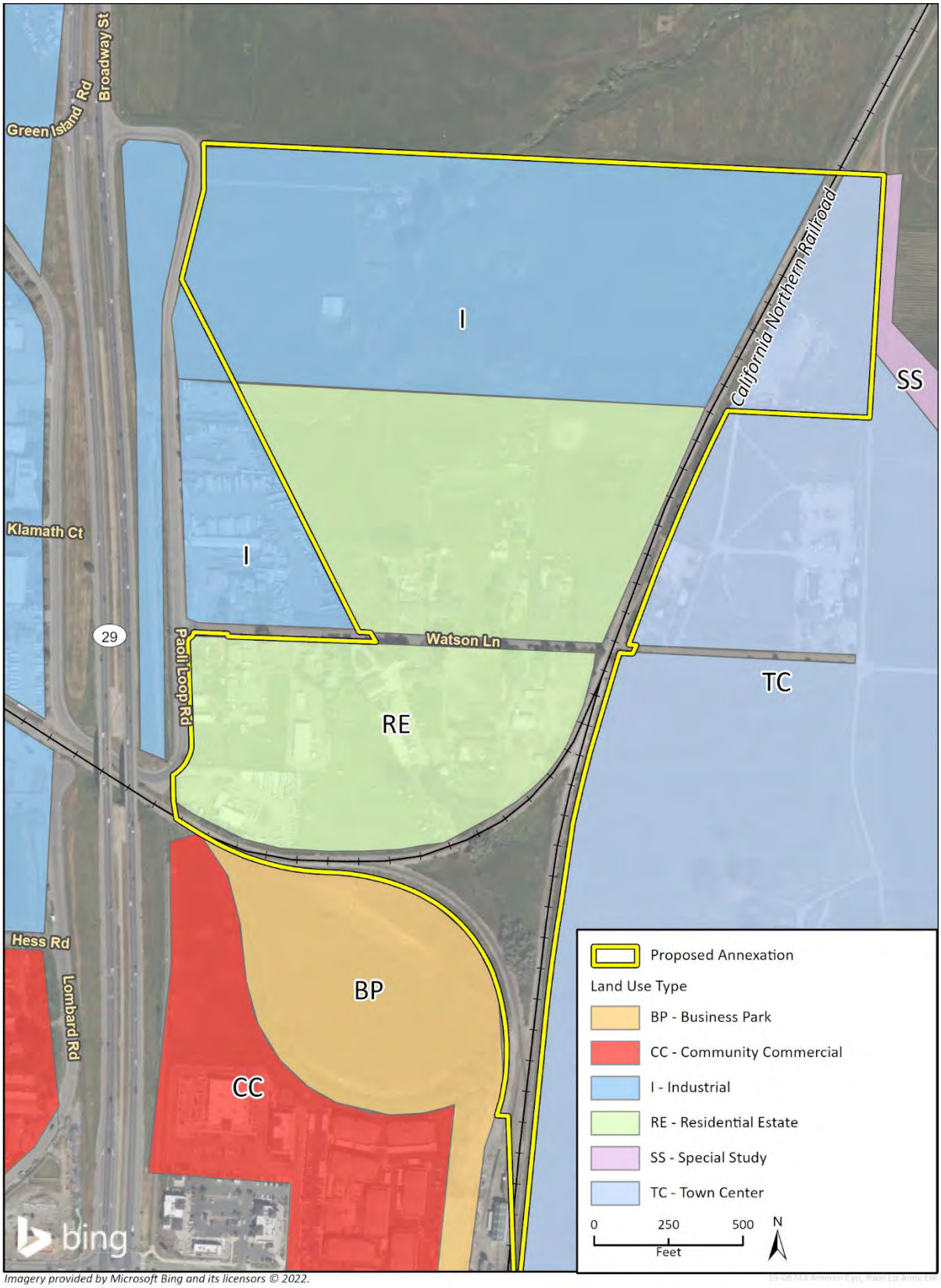
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Additional data provided by County of Napa, 2022.

Figure 2-5 Exisiting City of American Canyon Pre-Zoning



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Figure 2-6 Proposed City of American Canyon Land Use Designations



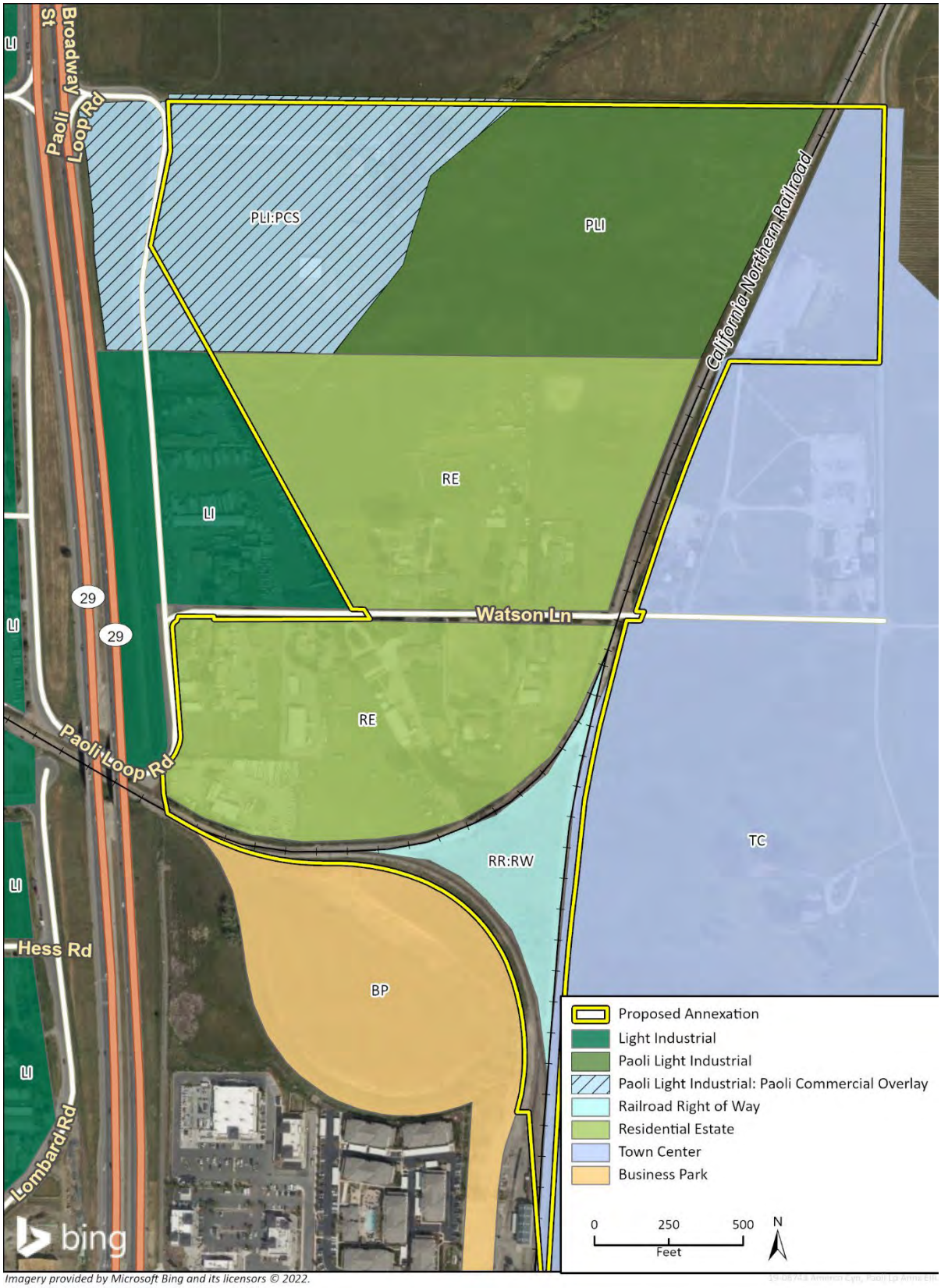
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Proposed Pre-Zoning

The land designated as Residential Estate would be pre-zoned as such, which would allow residences with a minimum lot size of 1 acre. The land designated as Industrial would be pre-zoned as Paoli Light Industrial, which would be a new zoning designation that accommodates existing and new light manufacturing uses, research and development, offices, or similar uses. The Industrial land west of the North Slough would also be pre-zoned with a Paoli Commercial Overlay District, which would allow commercial and commercially-related uses that capitalize on vehicle access and visibility. Outside the annexation area, the land between SR 29 and Paoli Loop Road currently zoned as Light Industrial would be rezoned as Paoli Light Industrial with a Paoli Commercial Overlay District. No change is proposed to the existing Town Center pre-zoning for the parcel east of the UPRR. The proposed pre-zoning is shown in Figure 2-7. No parcel subdivisions are proposed at this time. Pre-zoning would include the following building design elements that ensure new industrial development is aesthetically pleasing.

- 19.14.100 Building Design (All Industrial Districts).
  - A. Achieve high quality development design and existing use compatibility following design features:
    - a. Architectural treatment of all building elevations.
    - b. Extensive use of landscape along the primary street frontages and parking lots.
    - c. Enclose storage areas visible from principal highways (including Highway 29) and peripheral residential and commercial districts with decorative screening or other elements.
    - d. Screen rooftop mechanical equipment with a parapet or roof screen equal in height to the mechanical equipment.
  - B. Require that industrial areas developed as research and development and office-oriented business parks be designed to convey a unified character by consideration of the following:
    - a. Interconnect individual buildings with pedestrian walkways, arcades, and/or other visual elements.
    - b. Differentiate building facades with materials, color, architectural details and building elevation articulation.
    - c. Incorporate extensive landscape in parking areas, along building frontages, and other public areas.
    - d. Use consistent and well-designed public and informational signage.
    - e. Installation of elements (or install elements) that define key entry points into the industrial district.

Figure 2-7 Proposed City of American Canyon Pre-Zoning



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2.5.2 Newell Drive Extension

Newell Drive is a planned roadway in the City of American Canyon General Plan Circulation Element. The project includes extending Newell Drive across the northern boundary of the annexation area east from SR 29, across the North Slough with a long span, and gently curving southeast toward Watson Lane to the UPRR. The Newell Drive extension would cross the UPRR tracks via an overcrossing and continue southeast to the planned extension of Newell Drive in Watson Ranch, approximately 1 mile southeast of the annexation area. Extending Newell Drive would help relieve SR 29 traffic congestion. The City is also considering an at-grade crossing alternative for the project and the analysis for this alternative can be found in Chapter 6, *Alternatives*. The Newell Drive extension is shown in relation to the annexation area in Figure 2-8.

2.5.3 Pre-Annexation Agreement

In June 2019, the American Canyon City Council adopted Resolution 2019-44 to execute a First Amended Pre-Annexation Agreement for the annexation area. The resolution notes that the annexation area includes continuous parcels to avoid creating an "island" of unincorporated territory surrounded by the City. The islands being referred to include the UPRR right-of-way in the southeastern section of the annexation area and the area to the east of the UPRR. The resolution includes a clause that mentions dedication of a public right-of-way for the Newell Drive extension, as discussed above. Finally, the resolution grants City Council the right to consider amending the General Plan to change the designation of the northern portion of the annexation area from Industrial to Community Commercial at some time in the future.

2.5.4 Napa County Local Agency Formation Commission

Prior to annexation, Napa County LAFCo must approve the City's annexation application, which City Council directed City staff to prepare in September 2017. Napa County LAFCo requires preparation of California Environmental Quality Act (CEQA) documentation prior to annexation and identifies five additional issue areas of local interest to address in the CEQA documentation. Those include cumulative and regional impacts, impacts to public services, conversion of prime agricultural lands, consistency with general and specific plans, and availability of affordable housing.

Cortese-Knox Hertzberg Local Government Reorganization Act

The Cortese-Knox Hertzberg Local Government Reorganization Act is the most significant reform to local government reorganization law since the 1963 statute that created a LAFCo in each county. The law established procedures for local government changes of organization, including city incorporation, annexation to a city or special district, and consolidation of cities or special districts (California Government Code Section 56000, et seq.). LAFCo's have numerous powers under the Act, but those of prime concern are the power to act on local agency boundary changes and to adopt spheres of influence for local agencies. The law also states that to update an SOI, LAFCo's are required to first conduct a review of the municipal services provided in the county.

Figure 2-8 Proposed Newell Drive Alignment



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Additional data provided by County of Napa, 2022.

While LAFCo does not have any direct land use authority, the Act assigns LAFCo's a significant role in planning issues by requiring them to consider a wide range of land use and growth factors when they consider proposals. California Government Code Section 56001 specifically states that "the logical formation and determination of local agency boundaries is an important factor in promoting orderly development and in balancing that development with sometimes competing State interests of discouraging urban sprawl, preserving open space and prime agricultural lands, [and] efficiently extending government services."

The Act also requires LAFCo's to update SOIs for every city and special district every 5 years. The original deadline was January 2006, 5 years following the CHK Act becoming State law. That deadline was extended 2 years to January 2008. Every SOI update must be accompanied by an update of the municipal services review (MSR). Pursuant to Government Code Section 56430, Napa LAFCo conducts MSRs for each agency under LAFCo jurisdiction. The MSRs provide an in-depth look at provider service needs, use of resources, and possibilities for partnership with other agencies; and contain determinations that serve as guidelines to inform and support the LAFCo's decisions about SOIs. The most recent MSR for the City of American Canyon was approved by LAFCo on December 3, 2018.

2.5.5 Utilities

The annexation site is within the City's sewer and water service area. However, most of the annexation site is not currently serviced by existing infrastructure. New development on the project site would be connected to City sewer and water services.

Under the Cortese-Knox Hertzberg Local Government Reorganization Act, Napa County LAFCo is required to conduct a comprehensive study of services within their scope. Napa County LAFCo conducted a Countywide Water and Wastewater Municipal Services Review (MSR), approved in November 2020 (Napa County LAFCo 2020). The MSR evaluated water and wastewater services within the City, including the SOI. The City purchases water from the State Water Project and City of Vallejo and is considered adequate to meet the City's current needs and projected needs through 2040 depending on dry water year conditions. The City's water treatment plant has sufficient capacity to accommodate current and projected demand (Napa County LAFCo 2020).

2.5.6 Agricultural Land

The northern section of the annexation site is currently designated by the American Canyon General Plan as "Agriculture." The project would redesignate this property as "Industrial." Prior to annexation Napa County LAFCo requires the environmental review consider the annexation's impact on agricultural land. Napa County LAFCo defines prime agricultural land as an area of land, whether a single parcel or contiguous parcels, that has not been developed for a use other than an agricultural use and that meets any of the following qualifications:

- Land that qualifies, if irrigated, for rating as class I or class II in the USDA Natural Resources Conservation Service land use capability classification, whether or not land is actually irrigated, provided that irrigation is feasible.
- Land that qualifies for rating 80 through 100 Storie Index Rating.
- Land that supports livestock used for the production of food and fiber and that has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture in the National Range and Pasture Handbook, Revision 1, December 2003.

- Land planted with fruit or nut-bearing trees, vines, bushes, or crops that have a nonbearing period of less than five years and that will return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than four hundred dollars ($400) per acre.
- Land that has returned from the production of unprocessed agricultural plant products an annual gross value of not less than four hundred dollars ($400) per acre for three of the previous five calendar years.

2.5.7 Project Buildout

The annexation area would ultimately be developed for commercial, industrial, and visitor-serving/hotel use. For purposes of analysis in this EIR, it is conservatively assumed that 80 percent of parcels pre-zoned for Paoli Light Industrial, Paoli Light Industrial with Paoli Commercial Overlay, and Town Center would be developed for commercial, industrial, and visitor-serving/hotel uses. The remaining 20 percent accounts for building setbacks, right-of-way for construction of the proposed Newell Drive extension, including an overcrossing at the railroad, and a biological resources buffer around North Slough. Parcels pre-zoned for Residential Estate have existing residential uses and the application of the Residential Estate pre-zoning is to acknowledge these existing uses. The application of the Residential Estate pre-zoning would not induce additional residential development beyond existing conditions. Estimated buildout is summarized in Table 2-2. It is estimated that approximately 1,650 employees could be generated, as a result of this buildout.

Table 2-2 Estimated Maximum Buildout

Land Use	Area (Square Feet)
Commercial	494,942
Industrial	696,888
Visitor-Serving/Hotel	189,698

2.6 Vine Trail

The project site is located within a proposed segment of the Vine Trail, a countywide bicycle/pedestrian trail planned to ultimately connect the City of Calistoga to the Vallejo Ferry. This proposed segment of the Vine Trail is found in American Canyon's Circulation Element (City of American Canyon 2018). As envisioned in the General Plan, project applicants would complete segments of the Vine Trail located on the frontage of future development.

2.7 Project Objectives

The objectives of the project are to:

1. Promote economic growth in American Canyon by attracting new industries.
2. Promote development that generates net positive tax revenues for the City by generating more in new tax revenues than are consumed by City expenditures on services provided to the development.
3. Create new employment opportunities for residents of Napa County and the surrounding region.

4. Extend Newell Drive, which would augment north-south travel parallel to SR 29.
5. Improve American Canyon's jobs-housing ratio by adding new employment opportunities.
6. Further the goals and policies of the City of American Canyon General Plan by developing land contemplated to support urban development to its highest and best use.
7. Preserve the most biologically sensitive portions of the project site as open space.
8. Install circulation improvements along Paoli Loop and Watson Lane that provide efficient ingress and egress to the project while also ensuring these facilities operate at acceptable levels.
9. Promote public safety by incorporating security measures into the project design.
10. Mitigate impacts on the environment through implementation of feasible mitigation measures.

2.8 Required Approvals

Prior to annexation approvals by several agencies must occur. Those include:

- Napa County LAFCo must approve the City's annexation application, which would include approval of this Environmental Impact Report.
- A Property Tax Sharing Agreement between the City and County.
- City Council approval of General Plan amendments and pre-zoning.
- Napa County Airport Land Use Commission advisory review for compatibility with the Napa County Airport Land Use Compatibility Plan.
- California Public Utilities Commission approval of the Newell Drive extension overcrossing of the UPPR railroad.

In addition, a Settlement Agreement between Napa County, the Napa County Airport Land Use Commission, and the City of American Canyon was executed on May 3, 2022. The Settlement Agreement provides that the City will not approve any residential use application in Zone D until an amendment to the Airport Land Use Compatibility Plan has been approved or December 31, 2023, whichever occurs first. The Settlement Agreement does not prohibit the City from processing an application for a residential proposal within Zone D. Nonetheless, as described in Section 2.5.7, *Project Buildout,* the proposed project would not induce additional residential development beyond existing conditions.

3 Environmental Setting

This section provides a general overview of the environmental setting for the project. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4, *Environmental Impact Analysis*.

3.1 Regional Setting

The City of American Canyon is in southern Napa County, approximately 5 miles south of the City of Napa, 25 miles northeast of the city of San Francisco, and approximately 20 miles north of the City of Oakland. The city is located to the north of San Francisco Bay and San Pablo Bay, east of Napa River and west of the Newell Open Space Preserve and Lynch Canyon Open Space Park. Broadly, the City of American Canyon is bordered by unincorporated Napa County and the Napa County Airport to the north, Sulphur Spring Mountains to the east, Solano County and the City of Vallejo to the south, and a salt marsh and wetland area including the Napa River to the west.

The City encompasses an area of approximately 6.1 square miles. In addition, the City has a sphere of influence (SOI), which represents those areas that may already receive City services and are a visual and logical expansion of the city boundaries. There is currently one area in the SOI that is not within City limits. The City is currently in the process of annexing that area as part of this project. Primary regional access to the city is provided by Interstate 80 (I-80), approximately 5 miles to the east of the city limits. State Route (SR) 29 provides north-south access while SR 12 and SR 37 provide east-west access to the city. The city is served by a surface street system ranging from multi-lane arterial roadways to narrow two-lane streets. Primary access to the project site is currently provided by SR 29.

The climate of the City of American Canyon is a warm-summer Mediterranean climate, characterized by dry, hot summers and moderately moist, cool winters. The average temperature for the year in the City is 56.4°F (13.6°C). The warmest month, on average, is August with an average temperature of 65.1°F (18.4°C). The coolest month on average is December, with an average temperature of 45.4°F (7.4°C) (Weatherbase 2022). Average annual precipitation in American Canyon is 17.4 inches. Generally, in an average or typical year, most precipitation is received from October through April (Weatherbase 2022).

3.2 Project Site Setting

The area proposed for annexation is 83 acres in unincorporated Napa County within the SOI of the City of American Canyon. The project site is surrounded by City limits to the east, west, and south. To the east of the project site are existing agricultural uses in unincorporated Napa County, two residential parcels, and the Watson Ranch Specific Plan within American Canyon. Immediately west of the project site is Paoli Loop Road and SR 29, as well as existing industrial uses. The project site is bound to the south by the Union Pacific Railroad (UPRR) and vacant land and mixed residential/commercial uses further south. North of the project site are existing agricultural uses in unincorporated areas of Napa County.

The project site contains a mix of undeveloped land, residential uses, outdoor storage, and UPRR right-of-way within the SOI of the City. The northern portion is largely undeveloped, except for a

farmhouse and accessory outbuildings. The central and southern portion includes 13 residential lots, varying in size from 1 to 10 acres. The residential parcel in the southwest corner has a conditional use permit issued by the County for outdoor storage. Most of the residential lots lack municipal sewer service. The northeast portion to the east of the UPRR is a greenfield site with outdoor truck and material storage. The UPRR right-of-way in the southeast portion is undeveloped.

Land use designations in the City's General Plan include Agriculture, Town Center, and Residential Estate. In the County General Plan most of the project site is designated as Industrial, while the area east of the UPRR and UPRR right-of-way are designated as Agriculture-Watershed. A small section, east of the UPRR right-of-way is designated Town Center in the City's General Plan, and pre-zoned Town Center. The rest of the annexation area is not pre-zoned by the City.

3.3 Cumulative Development

In addition to the specific impacts of development facilitated by the project, the California Environmental Quality Act (CEQA) requires an Environmental Impact Report (EIR) to consider potential cumulative impacts of the proposed project. CEQA defines "cumulative impacts" as two or more individual impacts that, when considered together, are substantial or will compound other environmental impacts. Cumulative impacts are the combined changes in the environment that result from the incremental impact of development of the project and other nearby projects. For example, transportation impacts of two nearby projects may be less than significant when analyzed separately but could have a significant impact when analyzed together. Cumulative impact analysis allows the EIR to provide a reasonable forecast of future environmental conditions and can more accurately gauge the effects of a series of projects. This EIR uses a hybrid approach, consisting of a combination of the list-based and projection-based plan-based) approaches, to best identify cumulative impacts. Each approach is summarized below.

The projection approach discloses regional cumulative impacts related to air quality, energy, greenhouse gas (GHG) emissions, population and housing, public services and recreation, transportation, and utilities and service systems. To consider the potential cumulative impacts that are a result of overall growth, the cumulative analysis uses projections for the City of American Canyon. These projections are based on the City's Transportation Impact Fee, which identifies that in 2040, approximately 3,379 residences and 10,204,000 square feet of non-residential space would be added to the City of American Canyon.

For the list approach, the project and specific cumulative projects in or adjacent to the project were examined for the potential to result in cumulatively significant localized impacts. The cumulative analysis uses this approach to identify localized impacts related to aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, tribal cultural resources, and wildfire. Currently planned and pending projects in American Canyon and Napa County, are listed in Table 3-1. Cumulative impacts for each environmental resource topic are provided at the end of each environmental resource section.

Table 3-1 Cumulative Projects List

Project Name	Project Location	Land Use	Distance to Project Site (miles)
City of American Canyon – Active Construction			
Hampton Inn Hotel	3443 Broadway Street	Commercial	1.5
Core Tree Care Yard	352 Green Island Road	Commercial	0.6
SGD 2017	1075 Commerce Court	Industrial	1.2
Oat Hill Multifamily Project	Hess Road	Residential	0.5
Circle K Gas Station	Napa Junction and Lombard Street	Commercial	0.5
Napa Cove Apartments	Melvin Road	Residential	1.2
Green Island Road Widening and Reconstruction	Green Island Road	Roadways	1.3
Donaldson, Gisela and Surrounding Area Utility Project	Various locations	Utilities	N/A
City of American Canyon – Project Applications Under Review			
Watson Ranch Specific Plan Amendment	North of Vintage Ranch	Residential/ Commercial	0.8
Watson Ranch Lot Line Adjustment	Marcus Road	Residential/ Commercial	0.8
Napa Junction Solar Farm and RV Parking	5381 Broadway	Commercial/ Utilities	0.5
Chicken Guy Restaurant	200 American Canyon Road	Commercial	1.8
5555 Broadway Building Preapplication	5555 Broadway	Industrial	0.5
Hotel @ The Ruins	Southeast Corner Rollings Hills/Rio Del Mar	Hotel	1.1
Residences at Napa Junction	1000 Reliant Way	Residential	0.4
Carwash Preapplication	3885 Broadway	Commercial	1.0
Napa Logistics Park Road Improvement Mitigation Amendment	South of Napa Airport	Roadways	1.2
Sunsquare Mixed Use Building	425 Napa Junction Road	Residential/ Office	0.5
Giovannoni Logistics Center	300 Green Island Road	Commercial/ Industrial	0.6
Element 7 Cannabis Business Permit	1300 Green Island Road	Industrial	1.4
Reesan Live, Inc. Cannabis Business Permit	834 Green Island Road	Industrial	1.0
City of American Canyon – Major Building/Grading Permits			
SDG 217 Warehouse	1075 Commerce Court	Industrial	1.2
Napa Cove Improvement Plans	3787 Broadway	Residential	1.0
PG&E Regional Center Improvement Plans	500 Boone Drive	Utilities	1.5
Watson Ranch Lot 10	Northeast corner Marcus Road/Rio Del Mar East	Residential	1.1
Watson Ranch Lot 14/15	Northern Terminus of Summerwood	Residential	1.1

Project Name	Project Location	Land Use	Distance to Project Site (miles)
Lemos Pointe	Northeast corner Marcus Road/Rio Del Mar East	Residential	1.1
Napa Junction III Building 6B North Bay Urgent Care	416 Napa Junction Road	Commercial	0.4
Fume Commercial Cannabis Will Serve	180 Klamath Court	Commercial	0.3
Canyon Estates	Northeast Corner Silver Oak/Newell Drive	Residential	1.3
Copart	1587 and 1660 Green Island Road	Commercial/ Office	1.7
Home2Suites	3701 Main Street	Hotel	0.9
Circle K and Fuel Station Improvement Plans	112 Lombard	Commercial	0.5
PG&E Regional Center Improvement Plans	500 Boone	Utilities	1.5
Single Family Home Improvement Plans	219 Rio Del Mar	Residential	1.1
City of American Canyon – Major City Initiated Projects			
Watson Ranch Specific Plan	Southeast of the project site	Specific Plan	0.1
Comprehensive General Plan Update	Citywide	General Plan	N/A
6th Cycle Housing Element Update	Citywide	Housing Element	N/A
Napa County			
Hess Persson General Plan Amendment	5750 South Kelly Road	Industrial	Adjacent (north of project site)

4 Environmental Impact Analysis

This section discusses the possible environmental effects of the Watson Lane Annexation Project (project) for the specific issue areas identified through the scoping process with potential to experience significant effects. A "significant effect" as defined by the CEQA Guidelines Section 15382:

> means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria adopted by the City and other agencies, universally recognized, or developed specifically for this analysis to determine whether potential effects are significant. The next subsection describes each impact of the project, mitigation measures for significant impacts, and the level of significance after mitigation. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact as follows:

- **Significant and Unavoidable**. An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved pursuant to CEQA Guidelines Section 15093.
- **Less than Significant with Mitigation Incorporated**. An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under CEQA Guidelines Section 15091.
- **Less than Significant**. An impact that may be adverse but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Following each environmental impact discussion is a list of mitigation measures (if required) and the residual effects or level of significance remaining after implementation of the measure(s). In cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the project in conjunction with other planned and pending developments in the area listed in Section 3, *Environmental Setting*. The Executive Summary of this EIR summarizes all impacts and mitigation measures that apply to the project.

In addition, the City is currently updating the General Plan; however, the General Plan Update has not been adopted. As such, this analysis relies on the current General Plan, which includes policies that apply to this project.

Furthermore, the Napa County Local Agency Formation Commission (LAFCo) requires preparation of CEQA documentation prior to annexation. LAFCo may use this EIR to adopt the City's proposed annexation. In addition, LAFCo identifies five additional issue areas of local interest to address in the CEQA documentation. These include the following:

- Cumulative and regional impacts;
- Impacts to public services, including but not limited to, water supply and distribution systems; wastewater treatment and sewer collection systems; solid waste disposal capacity and collection; public school districts, fire and police protection; and public facilities, including discussion on the ability of the receiving entities (i.e., water district, sewer district, school district) to provide the services to the proposed boundary change area;
- Conversion of prime agricultural lands to urban uses and protection/preservation of prime agricultural lands and resources;
- Consistency with general and specific plans; and
- Availability of affordable housing.

This EIR covers each of these five topics in the following sections.

- Cumulative and regional impacts are provided at the end of each environmental resource topics.
- Impacts to public services and public facilities are addressed in Section 4.14, *Public Services and Recreation* and Section 4.17, *Utilities and Service Systems.*
- Impacts to prime agricultural lands are addressed in Section 4.2, *Agricultural Resources.*
- Impacts related to consistency with general plans are addressed in Section 4.11, *Land Use and Planning*.
- The availability of affordable housing is discussed briefly in Section 4.13, *Population and Housing.* The discussion is brief because the project would not affect affordable housing and because the City's Housing Element is currently being updated based on the 6th Cycle State requirements for the 2023-2031 planning horizon. The City's Housing Element will help facilitate the development of housing, including meeting its Regional Housing Needs Allocation of 622 residential units.

4.1 Aesthetics

This section summarizes existing aesthetics in the City and analyzes the impacts on aesthetics, including impacts to scenic vistas, scenic resources, visual character, visual quality, and light and glare due to the project.

4.1.1 Setting

The City of American Canyon (City) and its Sphere of Influence (SOI) are situated in the central portion of the Coast Mountain Ranges in the southeastern portion of Napa County, between the east bank of the Napa River and the Sulfur Springs Mountains foothills. The primary arterial roadway in the city is State Route (SR) 29, which bisects the city from north to south and serves as the primary commercial corridor. Residential uses are generally located in the southern portion of the city, with commercial and industrial uses located in the northern portion near the Napa County Airport. American Canyon is characterized by a contemporary, low-rise, suburban appearance, with most development having occurred within the last 40 years. The city is characterized by a rich diversity of visual resources, both natural and human-made, including the rolling foothills to the east, riparian corridors found throughout the area, Oat Hill, Napa River, and the Basalt Plant (City of American Canyon 1994). The project site is located on the northeastern border of American Canyon, adjacent to Paoli Loop Road. This area is flat with views of the scenic Newell Open Space Preserve to the east and southeast.

a. Scenic Resources

Most communities identify scenic resources as important assets that form community identity. Scenic resources can be natural or man-made features such as trees, rock formations, historic buildings, and public art. The eastern foothills, rising approximately 1 mile east of the project site, contribute significantly to the city's visual image as they provide a transition between the higher mountain ranges to the east and the low land or floodplains to the west. The foothills also contribute to the rural feel of the community and serve as a backdrop against which much of the city's existing development is viewed and appreciated. Active vineyards located on portions of the foothills provide a strong linkage with the Napa Valley (City of American Canyon 1994).

Oat Hill is in the western portion of the city between developed land and the Napa River and is approximately 0.75 mile southwest of the project site. The hill is a distinct visual landmark that provides direction and orientation to many residents in the community, particularly those living in residential neighborhoods within proximity to the hill (City of American Canyon 1994).

Although most of the city's visual resources are natural, the Napa Valley Ruins and Gardens is a notable exception. The Basalt Rock Company started a rock quarrying facility and operations near the Napa River in 1941. Following World War II, the plant built almost 30 miles of pipeline in Napa County. This facility is now the focus of the Watson Ranch Specific Plan neighborhood, and its distinctive architectural features and location is in the process of rejuvenation. The Napa Valley Ruins and Gardens are approximately 0.8 mile south of the project site.

Scenic Vistas and Views

A scenic vista provides views of an aesthetically valued landscape that benefits the public. The term "vista" generally implies an expansive view, usually from an elevated point or open area. This designation may be officially designated or unofficially defined by a set of criteria. The City and its

SOI contain several streams and creeks, including American Canyon Creek, that provide the area with riparian habitats and vegetation. American Canyon Creek runs through the central portion of the city from the higher elevations of the Sulphur Spring Mountains to the Napa River (American Canyon 1994).

Although the Napa River flows outside City limits, the river serves as the primary western edge for American Canyon. In addition to the river's role as a key boundary, the river itself is another visual resource that enhances the overall beauty of the area. Napa River is clearly visible from the City's higher elevations, including atop Oat Hill and the eastern foothills and neighborhoods immediately east of the Napa River (City of American Canyon 1994).

Scenic Roadways

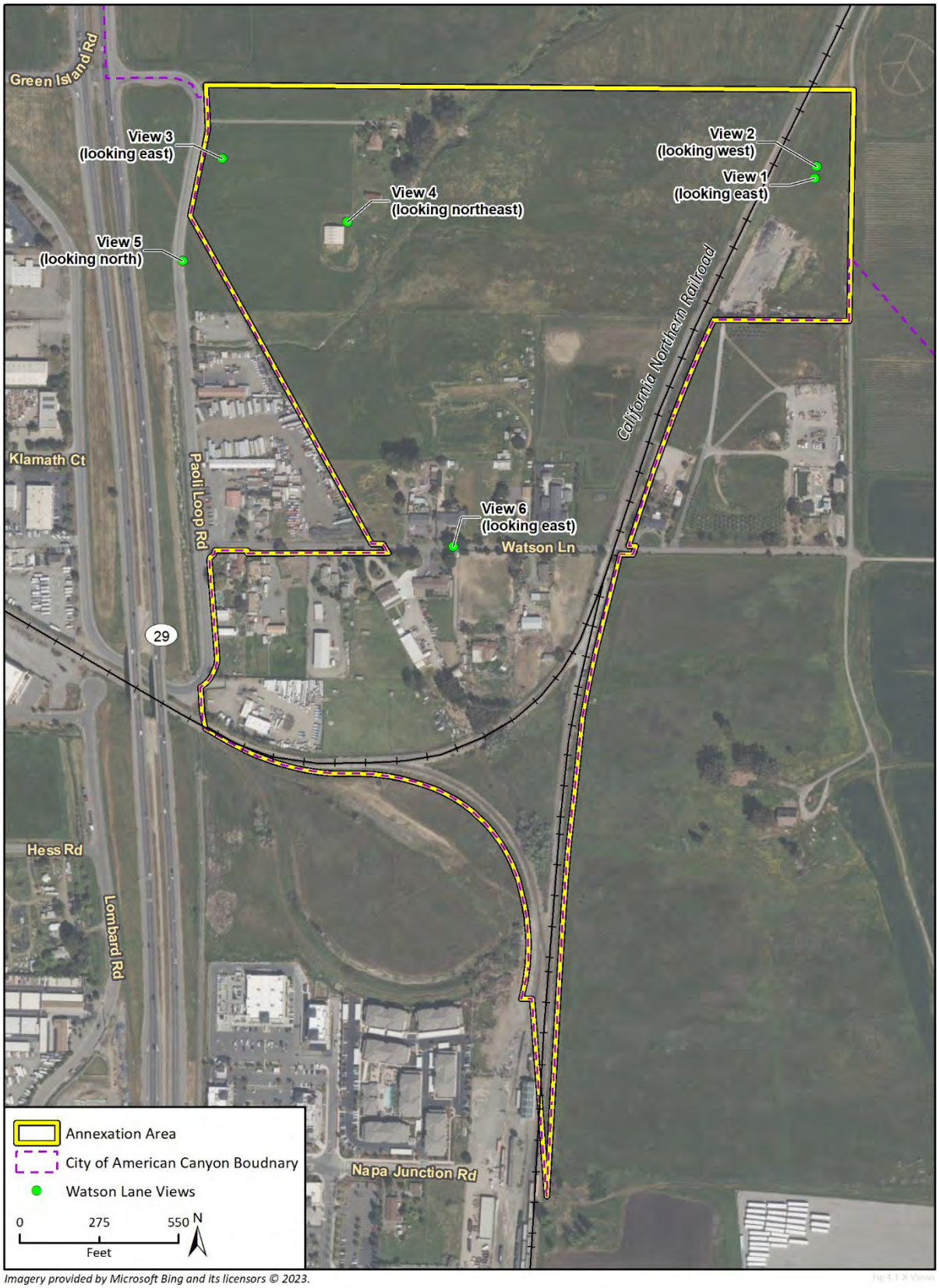
California's Scenic Highway Program designates scenic highways with the intention of protecting these corridors from change that would diminish the aesthetic value of adjacent lands. A highway is designated as an eligible scenic highway when the California Department of Transportation (Caltrans) determines that the roadway corridor qualifies for official status. The status of an officially designated scenic highway changes when the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated (Caltrans 2022). Scenic highways must have an approved Corridor Protection Program and remain in compliance to maintain scenic highway status. According to the Caltrans State Scenic Highway Map and list of eligible and officially designated State Scenic Highways, SR 29 is eligible for designation as a State Scenic Highway but is not officially designated as such (Caltrans 2018). SR 29 is less than 200 feet from the westernmost boundary of the project site.

b. Visual Character

The city is in a transitional area between the Sulphur Springs Mountains and the Napa River. A high-quality visual image and environmental character distinguish the area from other cities in the northern San Francisco Bay region. These visual and physical qualities provide a contrast from the urbanized areas to the south. The mountains and river offer potential recreational opportunities for residents and visitors, including hiking, equestrian, water sports, camping, and nature education and observation (City of American Canyon 1994). Residential uses are generally located in the southern portion of American Canyon, with commercial and industrial uses located in the northern portion near the Napa County Airport. The city is characterized by a contemporary, low-rise, suburban appearance, with most development having occurred within the last 40 years (American Canyon 2016). The project site is characterized by flat, semi-rural parcels with views of rolling hills to the north and east.

Figure 4.1-1 shows the locations of six views from the northern portion of the project site, where future development would be located. Photographs themselves are shown in Figure 4.1-2 through Figure 4.1-7. Figure 4.1-2 shows the views of the hills to the east of the project site, which are visible from the project site, as well as SR 29. Figure 4.1-3 shows the views of the project site to the west, including the Union Pacific Railroad tracks, the structures located on the project site, and the auto-shop located adjacent to the project site.

Figure 4.1-1 Viewpoint Locations



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Figure 4.1-2 View looking east from the northeastern corner of the project site



Source: Rincon Consultants 2022

Figure 4.1-3 View looking west from the northeastern corner of the project site



Source: Rincon Consultants 2022

Figure 4.1-4 and Figure 4.1-5 show a closer view of the structures located on the project site. Figure 4.1-6 show views from the northwestern corner of the project site, looking north towards the hills. Figure 4.1-7 shows the views from Watson Lane, which is characterized with views of trees and single-story residences. As depicted in Figures 4.1-1 through 4.1-6, the views from the project site are characterized as undeveloped grassland areas. Of note are the views of hills to the east and north of the project site.

Figure 4.1-4 View looking east from the north central portion of the project site



Source: Rincon Consultants 2022

Figure 4.1-5 View of structures located in the north central portion of the project site



Source: Rincon Consultants 2022

Figure 4.1-6 View looking north on Paoli Loop Road on the northwestern corner of the project site



Source: Rincon Consultants 2019

Figure 4.1-7 View looking east on Watson Lane



Source: Rincon Consultants 2022

c. Light and Glare Conditions

Light and glare from indoor or outdoor uses can reduce visibility of the night sky, create potential hazards to drivers, and be a nuisance to residential areas. The City has typical light conditions found in suburban areas (e.g., roadway lighting, commercial parking lot and building lighting, residential buildings, headlights from motor vehicles). Sources of daytime glare include direct beam sunlight and reflections from windows, architectural coatings, glass, and other shiny reflective surfaces. Nighttime lighting and glare are produced by both stationary and mobile sources. Stationary sources of nighttime light include structure illumination, decorative landscape lighting, lighted signs, and streetlights. The primary source of mobile nighttime light is motor vehicle headlights. Sources of light and glare in the residential areas include street lighting along roadways, lit building exteriors and signage, and parking lot lighting.

4.1.2 Regulatory Setting

a. Federal Regulations

There are no federal regulations that would be applicable to the project.

b. State Regulations

California Scenic Highways Program

The California Scenic Highway Program, established in 1963, identifies and designates certain highways throughout the State which require special conservation treatment in relation to surrounding land use development. Caltrans manages the State Scenic Highway Program and defines a scenic highway as any freeway, highway, road, or other public right-of-way, that traverses an area of exceptional scenic quality. Suitability for designations as a State scenic highway is based on the vividness, intactness, and unity of their view corridors, as described in Caltrans' Scenic Highway Guidelines (Caltrans 2008):

- *Vividness* is the extent to which the landscape is memorable. This is associated with the distinctiveness, diversity, and contrast of visual elements. A vivid landscape makes an immediate and lasting impression on the viewer.
- *Intactness* is the integrity of visual order in the landscape and the extent to which the natural landscape is free from visual intrusions (e.g., buildings, structures, equipment, grading).
- *Unity* is the extent to which development is sensitive to and visually harmonious with the natural landscape.

California Green Building Code

The California Green Building Code, Section 5.106.8, stipulates that new lighting must conform to standards that keep light generated on site from leaving the site by using reflectors, shields, screen walls, and any other method which complies with the Code's intent to limit light pollution. As noted below in Section 4.1.2(c), *Local Regulations,* the City of American Canyon has adopted the California Green Building Code in Chapter 16.02 of the Municipal Code.

c. Local Regulations

City of American Canyon General Plan

The City's current General Plan addresses visual character and quality and scenic resources (City of American Canyon 1994). The Land Use and Natural and Historic/Cultural Resources Elements include the following goals, objectives and policies related to aesthetic resources:

Objective 1.18: Ensure that commercial development be designed to exhibit a high quality of architectural character and emphasize a low scale "village" environment and pedestrian activity.

Objective 1.32: Attain residential, commercial, industrial, and public buildings and sites which convey a high quality visual image and character.

Policy 1.18.1: Require that commercial buildings be designed to convey a high level of design quality, including the following:

a. Architectural treatment of all façade elevations, including the articulation and modulation of facades to provide visual interest;
b. Provision of visually and physically transparent building elements (windows, doors, etc.) along the majority of the ground elevation facing street frontages and primary parking areas;
c. incorporation of arcades, courtyards, and other recesses along the street elevations to provide visual relief and interest;
d. clear identification of building entrances by design elements (recessed or extended entries, porticoes, and other), signage, and/or landscape;
e. visual differentiation of upper from lower floors;
f. integration of signage with the architectural character of the structure and limitation on their number and size;
g. screening and visual integration of rooftop air conditioning, heating, and other mechanical equipment;
h. extensive use of landscape that provides a three-dimensional character, including elements such as planting beds, raised planters, containers, or window boxes; and
i. provision of clearly defined pedestrian access to parking areas, differentiated by materials, texture, signage, lighting, landscape, and/or other appropriate design elements (the use of painted walkways is unacceptable).

Policy 1.18.2: Require that multi-tenant and large scale commercial development be sited and designed to convey a "village" environment in accordance with the following:

a. use of multiple building volumes and masses and highly articulated facades to reduce the visual sense of large scale "boxes" and create a visual fabric of multiple buildings and storefronts;
b. linkage of individual structures and storefronts by establishing common building "walls" along pedestrian sidewalks, plazas, and other open spaces;
c. siting of a portion of the buildings along the primary street frontage, with parking partially or fully screened by the buildings;
d. use of roofline and height variations to break up massing and provide visual interest;

e. use of pedestrian-oriented signage;
f. design of parking structures to be visually integrated with the commercial buildings and convey the image of occupied space; and
g. provision of pedestrian and bicycle paths to adjacent districts and neighborhoods.

Policy 1.18.3: Require that the onsite lighting of commercial uses be unobtrusive and designed to ensure that only the intended area is illuminated, offsite glare is minimized, and adequate safety is provided.

Policy 1.18.4: Require that entertainment, drinking establishments, and other uses characterized by high levels of activity provide adequate physical, safety, and operational measures to prevent negative impacts on adjacent properties.

Objective 8.18: Maintain American Canyon's visual quality and character by preserving significant hillside and aesthetic resources.

Policy 8.18.1: Prohibit development along ridgelines and related significant land forms within the City and (in consultation with the County) the Planning Area:

a. Site development to prevent disruption of skyline topography as seen from lower lying viewsheds. Points of reference should be based on the following criteria:
    1. preservation of significant public views from areas along major arterial roadways;
    2. preservation of significant view sheds from prominent public viewing areas;
    3. preservation of significant public views from the Town Center, parks, and other major public open spaces; and
    4. preservation of significant public view corridors to the Eastern Foothills and Coastal Brackish Marsh.

Policy 8.18.2: Require that development in hillside areas comply with the following principles (in addition to Geology Element Policy 9.4.2[1]):

a. Density of development shall be reduced as the steepness of slope increases.
b. When grading is necessary, slope tops and bottoms shall be rounded and a smooth transition made where built and natural slopes intersect contour grading). Highly visible manufactured slope faces shall be varied and made to appear as natural as possible, avoiding flat planed surfaces, long straight embankments and repetitive terracing. The use of state- of-the- art landform grading concepts is encouraged.
c. Prohibit mass grading on slopes greater than 25 percent; except where such slopes are isolated anomalies within a generalized slope pattern.
d. Minimize the size of flat pads in site grading, limiting flat areas to the building footprint and a reasonable amount of related outdoor space, in areas where natural grades are 15 percent or greater.
e. The natural topographic character of hillsides shall be maintained, including ridgelines, rounded hill forms and angled slopes.

[1] Policy 9.4.2 is related to liquefaction and not to aesthetics. As such, this policy is not discussed further.

f. Significant natural systems and resources shall be maintained and restored, including existing vegetation, wildlife habitat, special geological features, canyons and natural drainage swales, steep slopes and important historic or cultural features.

g. Encourage the use of materials that complement their setting.

h. Buildings in hillside areas shall be designed to a scale and form that complement hillside character. Building forms, including roof lines, shall step with hill forms to minimize the visibility of building profiles on slopes. As a general rule, gabled roof ridgelines should be angled to follow the same direction of contour lines, thus reducing the exposure of gable roof ends and the primary building mass when viewed from a distance.

i. Design retaining walls with smooth, flowing forms that follow topographical lines, thereby minimizing long straight stretches and sharp angular forms. Minimize the height of retaining walls by terracing hillsides.

j. Plant all hillside slopes with drought- tolerant species to soften the visual impact of grading, retaining walls, buildings and roads. All manufactured slopes shall be revegetated with ground cover, shrubs and trees, and follow a planting pattern similar to the natural vegetation patterns in the area.

k. Arrange trees and shrubs in informal masses to produce a textured slope similar to natural chaparral.

American Canyon Municipal Code

The Zoning Code (Title 19) of the American Canyon Municipal Code implements the General Plan, particularly the Land Use Element. While General Plan designations are more generalized in nature, the Zoning Code and zoning districts provide specific controls on land use, density or intensity of development, and development standards to implement the City's General Plan goals and policies. The Zoning Code provides standards for protection of visual resources, compatible design, and illumination for new development in the City that is associated with zoning. Zoning Code Title 19 establishes standards for development within the City. Zoning Code Chapter 19.23 provides a list of prohibited signage in the City. The California Green Building Code, which includes lighting requirements, has been adopted in Chapter 16.02 of the Municipal Code.

4.1.3 Impact Analysis

a. Significance Thresholds and Methodology

CEQA Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on aesthetics if it would:

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 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; or,
4. Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.

Methodology

Aesthetics impact assessments involve qualitative analysis that is subjective but informed by the City policies detailed above. Reactions to the same aesthetic conditions vary according to viewer taste and interests but are basically governed by the visual compatibility with the surroundings and existing development, coherence with design guidelines established by the jurisdiction, and use of high-quality materials that blend into the landscape. Ultimately, development decisions that prescribe aesthetic or design treatments for specific projects fall under the purview of the American Canyon Planning Commission and appointed or elected bodies charged with overseeing development permits. This project involves an annexation and rezone of properties in areas of Napa County and does not constitute a specific development proposal. This analysis focuses, therefore, on a general discussion of the aesthetic impacts on the annexation area, in terms of the arrangement of built space to open space and how new development might visually fit with the existing landscape characteristic of the area.

b. Project Impacts and Mitigation Measures

Threshold 1: Would the project have a substantial adverse effect on a scenic vista?

Impact AES-1 THE PROJECT WOULD NOT HAVE A SUBSTANTIAL ADVERSE EFFECT ON A SCENIC VISTA, INCLUDING VIEWS OF HILLS, AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Scenic vistas are considered expansive views from elevated positions, such as those from a roadway in the mountains, or views provided from a public place where the landscape is visible into the distance (e.g., looking at mountains across a field with little intervening development or vegetation). American Canyon is characterized by a unique scenic beauty that combines agriculture and viticulture in flat valley floors extending into the rolling terrain of the foothills, redwood forests, and grazing lands.

The City has no designated scenic vistas or scenic viewpoints. General Plan Policy 8.18, however, identifies views of the hills and ridgelines surrounding the City as important visual resources. Hills and ridgelines surrounding the City include the Sulphur Springs foothills to the east and Oat Hill to the west. Views from SR 29 provide motorists with expansive, although fleeting, views of these hills. In addition, expansive scenic views of the City and surrounding natural areas are provided from the Newell Open Space Preserve. Views from the Newell Open Space Preserve include the City, the Napa Wetlands, the Napa River, and Oat Hill.

The project would facilitate industrial, commercial, and visitor serving development within the northern portion of the project site. In addition, the project would facilitate the extension of Newell Drive. The extension of Newell Drive would include overcrossings above the Union Pacific Railroad and the North Slough. This would introduce elevated portions of the roadway on the project site. This development and extension would occur in a largely vacant, undeveloped area and would be visible from SR 29 and from the Newell Open Space Preserve. Figures 4.1-1 through 4.1-6 show typical views from and of the project site.

Motorists traveling on SR 29 currently experience views of hills in the background, as well as undeveloped, vacant areas with grasses on the project site. Figure 4.1-1 shows a view of these hills. Motorists today also experience views of auto tire and trucking businesses, located near where future development would occur. These views, however, are fleeting and intermittent because it is experienced while driving. Motorists are not considered sensitive viewers because their primary

focus is on road conditions. While future development and the Newell Drive Extension would be visible from SR 29 when the project is implemented, views of the hills would remain available in the background. Furthermore, views of the hills and undeveloped areas would remain visible north of the project site. As such, changes due to the project would not result in a substantial adverse effect on scenic vistas from SR 29. Thus, impacts from the project to the views from SR 29 would be less than significant.

Viewers at Newell Open Space Preserve are sensitive viewers because the viewpoint is in an open space/recreational area where views are an important element of the visitor experience. People experience public views from the public trails located in Newell Open Space Preserve. Future development from the project would be located approximately 1 mile from the nearest public trail in the Newell Open Space Preserve. While the project would introduce a roadway (Newell Drive Extension) and development, scenic resources, such as Oat Hill, the Napa River Wetlands, and the Sonoma Mountains would all remain visible. Views from the Newell Open Space Preserve would not result in a substantial adverse effect on a scenic vista. Therefore, impacts from the project to the view from the Newell Open Space Preserve would be less than significant.

The extension of Newell Drive would offer new opportunities for motorists to experience scenic views of undeveloped areas and the hills. Although portions of the roadway would be elevated to accommodate overcrossings, views of scenic resources such as hills would remain. Because the extension of Newell Drive would not significantly affect scenic views and because the extension would offer new opportunities for motorists to experience scenic views, impacts due to the extension of Newell Drive would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2:	Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Impact AES-2 THE CITY OF AMERICAN CANYON DOES NOT HAVE A DESIGNATED STATE SCENIC HIGHWAY AND THE PROJECT WOULD NOT DAMAGE SCENIC RESOURCES WITHIN A STATE SCENIC HIGHWAY. NO IMPACT WOULD OCCUR.

There are no designated scenic highways within or directly adjacent to project site (SR-29 is not officially designated as a state scenic highway). Because there are no state scenic highways in the project area, there would be no impacts related to scenic resources within a state scenic highway.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 3:	Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Impact AES-3 THE PROJECT IS IN AN URBANIZED AREA AND WOULD NOT CONFLICT WITH APPLICABLE ZONING OR GENERAL PLAN POLICIES GOVERNING SCENIC QUALITY. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

CEQA Guidelines Section 21071 defines an urbanized area as an incorporated city that meets either of the following criteria:

1. A population of at least 100,000 persons.
2. A population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons.

The City of American Canyon does not meet the first criteria but does meet the second criteria.[2] As such, this analysis considers whether the project conflicts with applicable zoning and other regulations governing scenic quality.

Scenic quality in American Canyon is governed by the policies in the General Plan, listed in Section 4.1.2, *Regulatory Setting*. The General Plan policies include requirements related to designing structures to have high visual quality (Objectives 1.18 and 1.32, Policies 1.18.1 through 1.18.4). The structures and the Newell Drive Extension that would be located on the project site have not been designed yet. Furthermore, the proposed pre-zoning includes design standards for new buildings in the industrial zoning district (see Section 2.5.1 in Chapter 2, *Project Description*). The design of any future buildings would be reviewed by the City's Planning Commission to ensure that the buildings create a sense of place by interpreting the General Plan and Zoning. Likewise, the design of the Newell Drive Extension would be reviewed by the City. The policies in the General Plan also prohibit development along ridgelines (Policy 8.18.1) and requirements for development in hillside areas (Policy 8.18.2), which are meant to maintain American Canyon's visual quality and character by preserving significant hillside and aesthetic resources (Objective 8.18.1). Because the project is not located on ridgelines or hillside areas, the project would not conflict with this objective and these policies. The project would not conflict with applicable zoning and other regulations governing scenic quality, and impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

[2] The City of Vallejo is an incorporated city that is contiguous to the City of American Canyon. The combined population of both cities is more than 100,000 persons.

Threshold 4:	Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Impact AES-4 CONSTRUCTION AND OPERATION OF FUTURE DEVELOPMENT FACILITATED BY THE PROJECT COULD CREATE NEW SOURCES OF LIGHT OR GLARE THAT COULD ADVERSELY AFFECT THE VISUAL ENVIRONMENT. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION MEASURES INCORPORATED.

The project site proximate to a developed and urbanized area where day and nighttime lighting is part of the built environment, including street lighting at intersections and along Paoli Loop, parking lot lighting, security lighting, and building lighting, as well as various other sources of light from nearby urban uses. For example, existing light sources in the project area include residences off Watson Lane, the auto repair business and industrial uses off Paoli Loop, vehicle headlights on SR 29 and other roadways.

During construction, activities associated with the project would be limited to between 7:00 a.m. and 7:00 p.m. pursuant to the City's Noise Ordinance. However, some temporary lighting may be necessary on site during the early morning or evening hours for safety and security reasons. This lighting could be bright, which would be a potentially significant impact. Implementation of Mitigation Measure AES-1 would require construction lighting to be minimized and downward-facing.

Implementation of the project would result in conversion of the site from primarily undeveloped to a developed site with exterior lighting for security and aesthetic illumination, which would contribute to the overall ambient lighting. In addition, there would be lighting from vehicles using the Newell Drive Extension. The project would adhere to requirements in the California Green Building Code, including Chapter 5.106.8 to reduce light pollution. Furthermore, implementation of Mitigation Measure AES-2 would require the submittal of a photometric plan for future development to ensure that all exterior light fixtures are directed downward or employ full cut-off fixtures to minimize light spillage. Implementation of this mitigation, as well as the requirements in the Municipal Code and policies in the General Plan would minimize potentially significant light and glare impacts.

Mitigation Measures

AES-1 Construction Lighting Plan

Prior to nighttime construction, if needed for a particular project, project applicants shall submit a construction lighting plan to the City for review and approval. The construction lighting plan shall ensure that the minimum amount of lighting is used to meet safety requirements and ensure no spillover occurs to nearby sensitive uses. All lighting shall be directed downward and away from surrounding land uses.

AES-2 Operational Lighting Plan

Prior to discretionary project approval, the project applicant shall prepare and submit a photometric plan to the City for review and approval which demonstrates that all exterior light fixtures will be directed downward or employ full cut-off fixtures to prevent light spillage. The approved plan shall be incorporated into the project design plans.

Significance After Mitigation

Implementation of Mitigation Measure AES-1 and AES-2 would ensure that lighting and glare is minimized during construction and operation of future development. With implementation of Mitigation Measure AES-1 and AES-2, impacts would be less than significant.

4.1.4 Cumulative Impacts

The geographic context for the cumulative aesthetics analysis is the City of American Canyon and Napa County, especially areas in the project vicinity. Cumulative development includes foreseeable future projects that could have a direct connection to the project from the perspective of visual resources. The Watson Ranch Specific Plan is the largest cumulative project and is close to the project site. As such, this cumulative project is discussed further below in the cumulative analysis.

As described in Impact AES-2, the project would have no impact on a scenic highway and therefore would not contribute to a cumulative impact. As such, it is not discussed further.

As described in Impact AES-1, the project would have a less than significant impact on scenic views for viewers on SR 29 and at the Newell Open Space Preserve. Under cumulative conditions, motorists on SR 29 would see the future development associated with the project, the Watson Ranch Specific Plan development, and the future Hess Collection-Laird General Plan Amendment industrial development north of the project site. While views of certain hills from SR 29 would be obstructed, hill views would not be completely obstructed. Furthermore, motorists are not considered sensitive viewers because their primary focus is on road conditions. As such, cumulative impacts on scenic views from SR 29 would be less than significant.

Under cumulative conditions, viewers from the Newell Open Space Preserve would see the project, as well as the future development associated with the Watson Ranch Specific Plan and any future industrial development from the Hess Collection-Laird General Plan Amendment. The Watson Ranch Specific Plan EIR identified that views of scenic resources (i.e., Oat Hill, Napa River Wetlands, and Sonoma Mountains) would remain even after implementation of the Specific Plan (City of American Canyon 2018). Similarly, the project would also maintain views of scenic resources from the Newell Open Space Preserve. As such, in the cumulative scenario, views of scenic resource would remain from the Newell Open Space Preserve and cumulative impacts on scenic views would be less than significant.

As described in Impact AES-3, the project would not conflict with applicable zoning or General Plan policies governing scenic quality. Similarly, all cumulative projects would be required to adhere to development standards included in the zoning ordinance and would be required to undergo design review by the City's Planning Division. As such, cumulative impacts related to conflicting with applicable zoning or General Plan policies governing scenic quality would be less than significant.

Cumulative development projects could contribute to light and glare impacts as the city continues to build out, as envisioned under the General Plan. Regulations that govern light and glare would apply to these projects. For example, cumulative development projects would adhere to the lighting requirements of the California Green Building Code. As such, because all cumulative development projects would be required to implement these lighting requirements, operational cumulative impacts would be less than significant.

Due to the proximity of the project site with the Watson Ranch Specific Plan, a cumulative impact on lighting from construction could occur if construction occurred at the same time. An EIR has been certified for the Watson Ranch Specific Plan, which includes a mitigation measure, requiring a

construction lighting plan, similar to the mitigation required for the project (City of American Canyon 2018). As such, because both the project and the Watson Ranch Specific Plan would mitigate lighting impacts during construction, cumulative lighting impacts from construction would be less than significant.

4.2 Agriculture and Forestry Resources

This section analyzes the potential effects related to agriculture and forestry resources due to implementation of the project.

4.2.1 Setting

a. Regional Agriculture

Napa County provides a variety of agricultural uses, including row crops, field crops, orchards, vineyards, and grazing land. The production of wine grapes accounts for the largest crop produced in Napa County, with approximately 46,019 acres used to produce wine grapes in 2021 (County of Napa 2021). The City of American Canyon is primarily developed and classified by the California Department of Conservation (DOC) as Urban and Built-Up Land and Farmland of Local Importance (DOC 2018). As defined by the DOC, Urban and Built-Up Land is occupied by structures with a building density of at least one unit to 1.5 acres and typically include residential, commercial, and/or industrial uses. Farmland of Local Importance is land determined by each county's board of supervisors and local advisory committees to be important to local agriculture (DOC 2018).

b. Important Farmland

To characterize agricultural land, the DOC has created Important Farmland Maps, which provide a visual representation of the quality of agricultural land based upon soil quality and irrigation status (DOC 2019a). Unless otherwise expressed, the use of "Important Farmland" in this section specifically includes the following DOC definitions (DOC 2018):

- **Prime Farmland**. Land which has the best combination of physical and chemical features able to sustain long term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.
- **Farmland of Statewide Importance**. Irrigated land similar to Prime Farmland that has a good combination of physical and chemical characteristics for the production of agricultural crops. This land has minor shortcomings, such as greater slopes or less ability to store soil moisture than Prime Farmland. Land must have been used for production of irrigated crops at some time during the four years prior to the mapping date.
- **Unique Farmland**. Lesser quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.

The project site is comprised of Urban and Built-Up Land and Farmland of Local Importance (DOC 2018). Figure 4.2-1 shows the distribution of both land designations on the project site. Farmland of Local Importance is not included in the DOC's definition of Important Farmland.

Figure 4.2-1 Farmland on the Project Site



Imagery provided by Microsoft Bing and its licensors © 2023.
Additional data provided by FMMP, 2018.

c. Williamson Act Contracts

Williamson Act contracts create an arrangement whereby private landowners enter a contract to voluntarily restrict their land to agricultural and compatible open space uses over a ten-year period in exchange for the land's property tax being assigned a rate consistent with actual use rather than potential market value (DOC 2019b). According to the County of Napa's Planning, Building, and Environmental Services Department (PBES) none of the parcels within the project site are under a Williamson Act contract (PBES 2018).

d. Napa County General Plan Land Use Designation and Zoning

The Agriculture Preservation and Land Use Element for the Napa County General Plan includes a Land Use Map (Figure AG/LU-3 in the General Plan) that shows the project site with a land use designation of Industrial (Napa County 2013). The project site is currently zoned by Napa County as Agricultural Watershed: Airport Compatibility (AW:AC) (Napa County 2015).

4.2.2 Regulatory Setting

a. Federal Regulations

There are no federal regulations that would be applicable to the project.

b. State Regulations

There are no State regulations that would be applicable to the project.

c. Local Regulations

Napa County LAFCo

The Napa County LAFCo is established under the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (California Government Code Section 56000, et seq.). The job of the commission is to, "review and approve with or without amendment, wholly, partially, or conditionally, or disapprove proposals for changes of organization or reorganization, consistent with written policies, procedures, and guidelines adopted by the commission," (California Government Code Section 56375). This gives the commission exclusive power to consider city annexations. Government Code Section 56377 requires the commission to minimize impacts on open space lands, including agricultural lands, as follows:

> "In reviewing and approving or disapproving proposals which could reasonably be expected to induce, facilitate, or lead to the conversion of existing open-space lands to uses other than open-space uses, the commission shall consider all of the following policies and priorities:"
>
> a) Development or use of land for other than open-space uses shall be guided away from existing prime agricultural lands in open-space use toward areas containing nonprime agricultural lands, unless that action would not promote the planned, orderly, efficient development of an area.

b) Development of existing vacant or nonprime agricultural lands for urban uses within the existing jurisdiction of a local agency or within the sphere of influence of a local agency should be encouraged before any proposal is approved which would allow for or lead to the development of existing open-space lands for non-open-space uses which are outside of the existing jurisdiction of the local agency or outside of the existing sphere of influence of the local agency.

Napa County General Plan

The Napa County General Plan Agricultural Preservation and Land Use Element sets goals in order to preserve existing agricultural land, keep urban development within already urbanized areas, support agricultural economy, and plan for environmental or climatic changes. Policies that address agricultural preservation in Napa County include (County of Napa 2013):

Policy AG/LU-2: "Agriculture" is defined as the raising of crops, trees, and livestock; the production and processing of agricultural products; and related marketing, sales and other accessory uses. Agriculture also includes farm management businesses and farm worker housing.

Policy AG/LU-130: The County recognizes the growth boundary for the City of American Canyon shown in Figure LU-5 [of the Napa County General Plan] and will support the City's annexation of unincorporated land located within the boundary provided that: (a) voters of American Canyon approve a ballot measure establishing the boundary and requiring any amendments prior to 2030 to be approved by the voters; (b) the City provides water service within their service area without discriminating between in-city and out-of-city customers except to the extent that rates may differ in accordance with law; (c) for industrial properties north of the current (2007) city limits, property owners provide an easement to the County agreeing to keep the properties in industrial use in perpetuity, and the City and County agree to share property tax revenues equally; and (d) for properties east of the current (2007) city limits, the City and County execute a revenue sharing agreement.

City of American Canyon General Plan

The current City of American Canyon General Plan sets forth the following goals, objectives, and policies concerning agriculture and forestry resources:

Goal 1D: Promote continued agricultural production.

Goal 8B: Promote the preservation of American Canyon's soil resources by protecting areas that are suitable for agricultural uses or buffer zones.

Objective 8.10: Encourage the preservation of existing agricultural operations except where designated for urban uses.

4.2.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on agricultural and forestry resources if it would:

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

Methodology

The location of agricultural lands and forest lands were identified by reviewing the DOC's Important Farmland Finder, information from the PBES, and aerial imagery. This analysis uses the definition of agricultural land provided in the California Environmental Quality Act (CEQA) Guidelines Section 21060.1, which provides the following definition: *"Agricultural land" means prime farmland, farmland of statewide importance, or unique farmland, as defined by the United States Department of Agriculture land inventory and monitoring criteria, as modified for California.* The definitions for prime farmland, farmland of statewide importance, and unique farmland are identified in Section 4.2.1, *Setting*.

Threshold 1:	Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

Impact AG-1 THE PROJECT WOULD NOT CONVERT FARMLAND, AS SHOWN ON MAPS PREPARED PURSUANT TO THE FARMLAND MAPPING AND MONITORING PROGRAM, TO NON-AGRICULTURAL USE. NO IMPACT WOULD OCCUR.

As described in Section 4.2.1, *Setting*, the project site contains land designated by the DOC as Urban and Built-Up Land and Farmland of Local Importance. However, as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program, there are no Important Farmlands located on the project site (DOC 2018). Therefore, the project would not convert Important Farmland to non-agricultural use. No impact would occur.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 2:	Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

Impact AG-2 THE PROJECT WOULD NOT CONFLICT WITH EXISTING ZONING FOR AGRICULTURAL USE OR A WILLIAMSON ACT CONTRACT. NO IMPACT WOULD OCCUR.

As described in Section 4.2.1, *Setting*, the project site is not held under a Williamson Act or other land conservation contract. As such, there would be no impact from conflicting with a Williamson Act contract.

The northern portion of the project site, where development would occur, has an American Canyon land use designation of Agriculture and no pre-zoning, as well as a Napa County land use designation of Industrial and Agricultural Watershed: Airport Compatibility zoning. As a part of this project, the City would change the land use designation and pre-zoning to Paoli Light Industrial and Paoli Light Industrial with Paoli Commercial Overlay. This change would ensure that there would be no conflict with an agricultural zoning. Furthermore, it should be noted that this annexation would be consistent with the overall vision in the City of American Canyon and Napa County General Plan. First, the annexation is within the City's sphere of influence, which defines the probable physical boundary and service area of a local agency. Second, the Napa County General Plan identifies the envisioned land use at the project site as industrial and includes Policy AG/LU-130, which supports the City's annexation of unincorporated land located within the growth boundary (the project site is located within the growth boundary). As such, there would be no impact from conflicting with zoning for agricultural uses.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 3:	Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?
Threshold 4:	Would the project result in the loss of forest land or conversion of forest land to non-forest use?

Impact AG-3 THE PROJECT WOULD NOT CONFLICT WITH EXISTING ZONING FOR, OR CAUSE REZONING OF FOREST LAND, TIMBERLAND, OR TIMBERLAND ZONED TIMBERLAND PRODUCTION, OR RESULT IN THE LOSS OF FOREST LAND OR CONVERSION OF FOREST LAND TO NON-FOREST USE. NO IMPACT WOULD OCCUR.

Historic aerial imagery dating to 1948 does not show any forest land which existed on the project site (County of Napa 2022; Environmental Risk Information Services 2022). In addition, the project site is not zoned for forest land or timberland. Therefore, the project would not conflict with the existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned Timberland Production, or result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 5:	Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?

Impact AG-4 THE PROJECT WOULD NOT INVOLVE OTHER CHANGES IN THE EXISTING ENVIRONMENT AND WOULD NOT RESULT IN THE CONVERSION OF FARMLAND OR FORESTLAND TO NON-AGRICULTURAL USE OR NON-FOREST USE. NO IMPACT WOULD OCCUR.

As described in Impacts AG-1, AG-2, and AG-3, the project would not result in impacts to agricultural or forest lands. In addition, the project is not expected to result in off-site agricultural lands to non-agricultural use for the following reasons. The addition of industrial and commercial uses associated with the project would be located within the City's sphere of influence, within an area designated by Napa County as Industrial, and within the City's growth boundary. By locating industrial and commercial development within these areas of planned development, this would reduce pressure to convert agricultural lands in Napa County to industrial or commercial uses. As such, no impact would occur.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

4.2.4 Cumulative Impacts

The cumulative context for agricultural and forestry resources is the City and the County. The largest cumulative project and the one closest to the project site is the Watson Ranch Specific Plan. The Watson Ranch Specific Plan EIR identified no impacts on agricultural or forestry resources (City of American Canyon 2018). Furthermore, as identified in Impact AG-4, the project is not expected to result in off-site conversion of agricultural lands to non-agricultural use. Furthermore, agricultural lands in unincorporated Napa County (which is where agricultural lands are concentrated) are protected through the "Right to Farm" provisions, which ensure that agriculture remains the primary land use in Napa County and is not threatened by potentially competing uses or neighbor complaints. The "Right to Farm" provisions are included in Section 2.94 of the Napa County Municipal Code. For these reasons, a cumulative impact on agricultural and forestry resources is not expected. Furthermore, because the project would have no impact on agricultural or forestry resources, the project would not contribute to a cumulative impact.

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4.3 Air Quality

This section analyzes the potential effects on air quality related to implementation of the project, including impacts due to construction, operations, and impacts to nearby sensitive receptors.

4.3.1 Setting

a. Climate and Topography

Air quality is affected by the rate and location of pollutant emissions and by climatic conditions that influence the movement and dispersion of pollutants. Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients, along with local and regional topography, influence the relationship between air pollutant emissions and air quality.

The project site is in the San Francisco Bay Area Air Basin (SFBAAB), which is comprised of Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma Counties. SFBAAB covers approximately 5,540 square miles of complex terrain, consisting of coastal mountain ranges, inland valleys, and the San Francisco Bay. The SFBAAB is generally bounded on the west by the Pacific Ocean, on the north by the Coast Ranges, and on the east and south by the Diablo Range.

The climate within the SFBAAB is dominated by a strong, semi-permanent, subtropical high-pressure cell over the northeastern Pacific Ocean. Climate is also affected by the adjacent oceanic heat reservoir's moderating effects. Mild summers and winters, moderate rainfall and humidity, and daytime onshore breezes characterize regional climatic conditions in the San Francisco Bay Area (Bay Area). In summer, when the high-pressure cell is strongest and farthest north, fog forms in the morning and temperatures are mild. In winter, when the high-pressure cell is weakest and farthest south, occasional rainstorms occur.

Winter daytime temperatures in the SFBAAB typically average in the mid-50s, with nighttime temperatures averaging in the low 40s. Summer daytime temperatures typically average in the 70s, with nighttime temperatures averaging in the 50s. Precipitation varies in the region, but in general, annual rainfall is lowest in the coastal plain and inland valley, higher in the foothills, and highest in the mountains.

b. Air Pollutants of Primary Concern

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone (O_3) is generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen dioxide (NO_2), and sulfur dioxide (SO_2) are considered local pollutants because they tend to accumulate in the air locally. Coarse particulate matter (PM_{10}) and fine particulate matter ($PM_{2.5}$) are considered both regional and local pollutants.

Ozone

O_3 is a highly oxidative unstable gas, produced by a photochemical reaction (triggered by sunlight) between NO_X and reactive organic gas (ROG)/volatile organic compounds (VOC).[1] ROG are composed of non-methane hydrocarbons (with some specific exclusions), and NO_X is composed of different chemical combinations of nitrogen and oxygen, mainly nitric oxide and NO_2. NO_X is formed during the combustion of fuels, while ROG are formed during combustion and evaporation of organic solvents. As a highly reactive molecule, O_3 readily combines with many different components of the atmosphere. Consequently, high levels of O_3 tend to exist only while high ROG and NO_X levels are present to sustain the O_3 formation process. Once the precursors have been depleted, O_3 levels rapidly decline. Because these reactions occur on a regional rather than local scale, O_3 is considered a regional pollutant. Groups most sensitive to O_3 include children, the elderly, people with respiratory disorders, and people who exercise strenuously outdoors (United States Environmental Protection Agency [USEPA] 2022a). Depending on the level of exposure, O_3 can result in the following:

- Cause coughing and sore or scratchy throat;
- Make it more difficult to breathe deeply and vigorously and cause pain when taking a deep breath;
- Inflame and damage the airways;
- Make the lungs more susceptible to infection;
- Aggravate lung diseases such as asthma, emphysema, and chronic bronchitis; and/or
- Increase the frequency of asthma attacks.

Carbon Monoxide

CO is a localized pollutant that is found in high concentrations only near its source. The major source of CO, a colorless, odorless, poisonous gas, is the incomplete combustion of petroleum fuels by automobile traffic. Therefore, elevated concentrations are usually only found near areas of high traffic volumes. Other sources of CO include the incomplete combustion of petroleum fuels at power plants and fuel combustion from wood stoves and fireplaces during the winter. When CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease. People with heart disease have restricted blood flow which results in a lack of oxygen to the heart muscle. These people are especially vulnerable to the effects of CO when exercising or under increased stress, when the heart needs more oxygen than usual. In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (USEPA 2022b).

Nitrogen Dioxide

NO_2 is a by-product of fuel combustion; the primary sources are motor vehicles and industrial boilers and furnaces. The principal form of NO_x produced by combustion is nitric oxide, but nitric oxide reacts rapidly to form NO_2, creating the mixture of nitric oxide and NO_2, commonly called NO_x. NO_2 is a reactive, oxidizing gas and an acute irritant capable of damaging cell linings in the respiratory tract. Such exposures over short periods can aggravate respiratory diseases, particularly

[1] The California Air Resources Board defines VOC and ROG similarly as, "any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate," with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions, and the term ROG is used in this environmental impact report.

asthma, leading to respiratory symptoms (such as coughing, wheezing, or difficulty breathing), and increase hospital admissions and visits to emergency rooms. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections. People with asthma, as well as children and the elderly are generally at greater risk for the health effects of NO_2 (USEPA 2022c). NO_2 absorbs blue light and causes a reddish-brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of O_3/smog and acid rain.

Sulfur Dioxide

SO_2 is included in a group of highly reactive gases known as "oxides of sulfur." The largest sources of SO_2 emissions are from fossil fuel combustion at power plants (73 percent) and other industrial facilities (20 percent). Smaller sources of SO_2 emissions include industrial processes such as extracting metal from ore and burning fuels with a high sulfur content by locomotives, large ships, and off-road equipment. Short-term exposures to SO_2 can harm the human respiratory system and make breathing difficult. People with asthma, particularly children, are sensitive to these effects of SO_2 (USEPA 2022d).

Particulate Matter

Suspended atmospheric PM_{10} and $PM_{2.5}$ is comprised of finely divided solids and liquids such as dust, soot, aerosols, fumes, and mists. Both PM_{10} and $PM_{2.5}$ are directly emitted into the atmosphere as by-products of fuel combustion and wind erosion of soil and unpaved roads. Particulate matter is also created in the atmosphere through chemical reactions. The characteristics, sources, and potential health effects associated with PM_{10} and $PM_{2.5}$ can be very different. PM_{10} is generally associated with dust mobilized by wind and vehicles while $PM_{2.5}$ is generally associated with combustion processes as well as formation in the atmosphere as a secondary pollutant through chemical reactions. PM_{10} can cause increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling. For $PM_{2.5}$, short-term exposures (up to 24-hours duration) have been associated with respiratory issues such as acute bronchitis and asthma attacks. In addition, $PM_{2.5}$ can cause premature mortality, increased hospital admissions for heart or lung issues, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases (California Air Resources Board [CARB] 2022a).

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs include both organic and inorganic chemical substances that may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. One of the main sources of TACs in California is diesel engine exhaust that contains solid material known as diesel particulate matter (DPM). More than 90 percent of DPM is less than one micron in diameter (about $1/70^{th}$ the diameter of a human hair) and thus is a subset of $PM_{2.5}$. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs (CARB 2022b).

TACs are different than criteria pollutants because ambient air quality standards have not been established for TACs. TACs occurring at extremely low levels may still cause health effects and it is

typically difficult to identify levels of exposure that do not produce adverse health effects. TAC impacts are described by carcinogenic risk and by chronic (i.e., long duration) and acute (i.e., severe but of short duration) adverse effects on human health.

TACs include both organic and inorganic chemical substances. While DPM is a main source, TACs may be emitted from a variety of common sources, including gasoline stations, motor vehicles, dry cleaners, industrial operations, painting operations, and research and teaching facilities. People exposed to toxic air pollutants at sufficient concentrations and durations may have an increased chance of developing cancer or experiencing other serious health effects. These health effects can include damage to the immune system, as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (USEPA 2020).

c. Air Quality Standards and Attainment

The federal and state governments have authority under the federal and state Clean Air Acts (CAA) to regulate emissions of airborne pollutants and have established ambient air quality standards (AAQS) for the protection of public health. An air quality standard is defined as "the maximum amount of a pollutant averaged over a specified period of time that can be present in outdoor air without harming public health" (CARB 2019a). The USEPA is the federal agency designated to administer air quality regulation, while CARB is the state equivalent in California. Federal and state AAQS have been established for six criteria pollutants: O_3, CO, NO_2, SO_2, $PM_{10,}$ $PM_{2.5}$, and lead. AAQS are designed to protect those segments of the public most susceptible to respiratory distress, such as children under the age of 14, the elderly (over the age of 65), persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases (USEPA 2016). In addition to the federal criteria pollutants, the California Ambient Air Quality Standards (CAAQS) also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride (CARB 2019b). Table 4.3-1 lists the current National Ambient Air Quality Standards (NAAQS) as well as the CAAQS for regulated pollutants.

USEPA and CARB designate air basins or portions of air basins and counties as being in "attainment" or "nonattainment" for each of the criteria pollutants. Areas that do not meet the AAQS standards are classified as nonattainment areas. The NAAQS (other than O_3, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. The NAAQS for O_3, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The CAAQS are not to be exceeded during a three-year period. The attainment status for Napa County is included in Table 4.3-2.

Pursuant to the CAA, USEPA designates areas as attainment, nonattainment, or maintenance for each criteria pollutant based on whether the NAAQS have been achieved. Whether an area meets the state and federal standards is based on air quality monitoring data. Areas that are unclassified have insufficient monitoring data for a specific pollutant to determine attainment or nonattainment status, although unclassified areas are typically treated as attainment for a specific pollutant. Since attainment and nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The region is designated as a nonattainment area for the federal and state Ozone standards and the State PM_{10} and $PM_{2.5}$ standards. The region is designated unclassified or attainment for all other ambient air quality standards (BAAQMD 2017a).

Table 4.3-1 Federal and State Ambient Air Quality Standards

Pollutant	Averaging Time	NAAQS	CAAQS
Ozone	1-Hour	–	0.09 ppm
	8-Hour	0.070 ppm	0.070 ppm
Carbon Monoxide	8-Hour	9.0 ppm	9.0 ppm
	1-Hour	35.0 ppm	20.0 ppm
Nitrogen Dioxide	Annual	0.053 ppm	0.030 ppm
	1-Hour	0.100 ppm	0.18 ppm
Sulfur Dioxide	Annual	–	–
	24-Hour	–	0.04 ppm
	1-Hour	0.075 ppm	0.25 ppm
PM_{10}	Annual	–	20 µg/m^3
	24-Hour	150 µg/m^3	50 µg/m^3
PM_{25}	Annual	12 µg/m^3	12 µg/m^3
	24-Hour	35 µg/m^3	–
Lead	30-Day Average	–	1.5 µg/m^3
	3-Month Average	0.15 µg/m^3	–

NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m^3 = micrograms per cubic meter
Source: CARB 2016; USEPA 2016

Table 4.3-2 Attainment Status of Criteria Pollutants in Napa County

Pollutant	State Designation	Federal Designation
O_3	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Unclassified
$PM_{2.5}$	Nonattainment	Unclassified/Attainment
CO	Attainment	Attainment
NO_2	Attainment	Unclassified/Attainment
SO_2	Attainment	Attainment

Sources: BAAQMD 2017a

d. Current Ambient Air Quality

The project is located in Napa County which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). BAAQMD is responsible for achieving and maintaining the state and federal Ambient Air Quality Standards (AAQS) within its jurisdiction. BAAQMD operates a network of air quality monitoring stations throughout the San Francisco Bay Area Air Basin (SFBAAB). The monitoring stations aim to measure ambient concentrations of pollutants and determine whether ambient air quality meets the state and federal standards. The monitoring station closest to the project site is the Vallejo – 304 Tuolumne Street Station, approximately 5.4 miles south of the project site. This station measures 8-hour O_3, hourly O_3, $PM_{2.5}$, and NO_X. The Napa – Valley College air monitoring station (located at Magnolia Drive and Route 221) in Napa is the closest air monitoring station to the project site that measures PM_{10}. This station is approximately

6.5 miles north of the site. Table 4.3-3 indicates the number of days each federal and state standard was exceeded at the Vallejo – 304 Tuolumne Street and Napa – Valley College air monitoring stations. As shown in Table 4.3-3, O_3 measurements exceeded federal or state O_3 standards in all three observation years. PM_{10} measurements exceeded the State standard in 2020. $PM_{2.5}$ measurements exceeded federal $PM_{2.5}$ standards in 2020. No other state or federal standards were exceeded at these air monitoring stations.

Table 4.3-3 Ambient Air Quality Data

Pollutant	2019	2020	2021
8 Hour Ozone (ppm), 8-Hour Average[1]	**0.076**	**0.077**	**0.072**
Number of Days of state exceedances (>0.070 ppm)	1	1	1
Number of days of federal exceedances (>0.070 ppm)	1	1	1
Ozone (ppm), Worst Hour[1]	0.092	**0.096**	**0.099**
Number of days of state exceedances (>0.09 ppm)	0	1	1
Carbon Monoxide (ppm), Worst-Hour	*	*	*
Number of days of state exceedances (>20.0 ppm)	*	*	*
Nitrogen Dioxide (ppm) - Worst Hour[1]	0.053	0.048	0.041
Number of days of state exceedances (>0.18 ppm)	0	0	0
Number of days of federal exceedances (>0.10 ppm)	0	0	0
Particulate Matter 10 microns, μg/m^3, Worst 24 Hours[2]	37.5	**122.9**	22.9
Number of days of state exceedances (>50 μg/m^3)	0	12	0
Number of days above federal standard (>150 μg/m^3)	0	0	0
Particulate Matter <2.5 microns, μg/m^3, Worst 24 Hours[1]	30.5	**152.7**	32.0
Number of days above federal standard (>35 μg/m^3)	0	12	0

[1] Measurements were taken from the Vallejo – 304 Tuolumne Street Station
[2] Measurements taken from the Napa – Valley College Station.
*Insufficient data available to determine the value.
Bold lettering indicates an exceedance of applicable AAQS.
Source: CARB 2022c

e. Sensitive Receptors

Sensitive receptors are facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. According to BAAQMD, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals and residential areas (BAAQMD 2017b). The nearest sensitive receivers are residences. There are residences whose property lines are adjacent to the area that would be pre-zoned as Paoli Light Industrial and Paoli Light Industrial with Paoli Commercial Overlay. In addition, the residential structures on these properties are approximately 500 feet from the area that would be pre-zoned as Paoli Light Industrial and Paoli Light Industrial with Paoli Commercial Overlay. There is one residence located approximately 850 feet from where the Newell Drive Extension would be located.

4.3.2 Regulatory Setting

a. Federal

Federal Clean Air Act

The Federal Clean Air Act (CAA) governs air quality in the United States. The CAA is administered by United States Environmental Protection Agency (USEPA) at the federal level, California Air Resources Board (CARB) at the State level, and by the Air Quality Management Districts at the regional and local levels. The CAA of 1970 and the CAA Amendments of 1971 required the USEPA to establish the National Ambient Air Quality Standards (NAAQS), with states retaining the option to adopt more stringent standards or to include other specific pollutants. On April 2, 2007, the Supreme Court found that CO_2 is an air pollutant covered by the CAA; however, no NAAQS have been established for CO_2.

The USEPA is responsible for enforcing the federal CAA. The USEPA is also responsible for establishing NAAQS. NAAQS are required under the 1977 CAA and subsequent amendments. The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside State waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by CARB.

USEPA Emission Standards for New Off-road Equipment

Before 1994, there were no standards to limit the amount of emissions from off-road equipment. In 1994, USEPA established emission standards for hydrocarbons, NOx, CO, and PM to regulate new pieces of off-road equipment. These emission standards came to be known as Tier 1. Since that time, increasingly more stringent Tier 2, Tier 3, and Tier 4 (interim and final) standards were adopted by USEPA, as well as by CARB. Each adopted emission standard was phased in over time. New engines built in and after 2015 across all horsepower sizes must meet Tier 4 final emission standards. In other words, new manufactured engines cannot exceed the emissions established for Tier 4 final emissions standards.

b. State

California Clean Air Act

The California CAA allows the state to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

California State Implementation Plan

The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins, as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The BAAQMD 2017 Clean Air Plan is the SIP for the SFBAAB. The 2017 Clean Air Plan accommodates growth by projecting the growth in emissions based on different indicators. For example, population forecasts adopted by the Association of Bay Area Governments (ABAG) are used to forecast population-related emissions. Through the planning process, emissions growth is offset by basin-wide controls on stationary, area, and transportation sources of air pollution.

California Low-Emission Vehicle Program

CARB first adopted Low-Emission Vehicle (LEV) program standards in 1990. These first LEV standards ran from 1994 through 2003. LEV II regulations, running from 2004 through 2010, represent continuing progress in emission reductions. As the State's passenger vehicle fleet continues to grow and more sport utility vehicles and pickup trucks are used as passenger cars rather than work vehicles, the more stringent LEV II standards were adopted to provide reductions necessary for California to meet federally mandated clean air goals outlined in the 1994 SIP. In 2012, CARB adopted the LEV III amendments to California's LEV regulations. These amendments, also known as the Advanced Clean Car Program, include more stringent emission standards for model years 2017 through 2025 for both criteria pollutants and greenhouse gas (GHG) emissions for new passenger vehicles.

California On-Road Heavy-Duty Vehicle Program

CARB has adopted standards for emissions from various types of new on-road heavy-duty vehicles. Section 1956.8, Title 13, California Code of Regulations contains California's emission standards for on-road heavy-duty engines and vehicles, and test procedures. CARB has also adopted programs to reduce emissions from in-use heavy-duty vehicles including the Heavy-Duty Diesel Vehicle Idling Reduction Program, the Heavy-Duty Diesel In-Use Compliance Program, the Public Bus Fleet Rule and Engine Standards, and the School Bus Program and others.

California Airborne Toxics Control Measure for Asbestos

CARB has adopted Airborne Toxics Control Measures for sources that emit a particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate Best Available Control Technology to minimize emissions. In July 2001, CARB approved an Air Toxic Control Measure for construction, grading, quarrying and surface mining operations to minimize emissions of naturally occurring asbestos. The regulation requires application of best management practices (BMPs) to control fugitive dust in areas known to have naturally occurring asbestos and requires notification to the local air district prior to commencement of ground-disturbing activities.

The measure establishes specific testing, notification and engineering controls prior to grading, quarrying, or surface mining in construction zones where naturally occurring asbestos is located on projects of any size. There are additional notification and engineering controls at work sites larger than one acre in size. These projects require the submittal of a "Dust Mitigation Plan" and approval by the air district prior to the start of a project.

Construction sometimes requires the demolition of existing buildings where construction occurs. Buildings often include materials containing asbestos. Asbestos is also found in a natural state, known as naturally occurring asbestos. Exposure and disturbance of rock and soil that naturally contain asbestos can result in the release of fibers into the air and consequent exposure to the public. Asbestos most commonly occurs in ultramafic rock that has undergone partial or complete alteration to serpentine rock (serpentinite) and often contains chrysotile asbestos. In addition, another form of asbestos, tremolite, can be found associated with ultramafic rock, particularly near faults. Sources of asbestos emissions include unpaved roads or driveways surfaced with ultramafic rock, construction activities in ultramafic rock deposits, or rock quarrying activities where ultramafic rock is present. The project site is not located in an area likely to contain naturally occurring asbestos (California Department of Conservation 2000).

Verified Diesel Emission Control Strategies

USEPA and CARB tiered off-road emission standards only apply to new engines and off-road equipment can last several years. CARB has developed Verified Diesel Emission Control Strategies (VDECS), which are devices, systems, or strategies used to achieve the highest level of pollution control from existing off-road vehicles, to help reduce emissions from existing engines. VDECS are designed primarily for the reduction of diesel PM emissions and have been verified by CARB. There are three levels of VDECS, the most effective of which is the Level 3 VDECS. Tier 4 engines are not required to install VDECS because they already meet the emissions standards for lower tiered equipment with installed controls.

California Diesel Risk Reduction Plan

CARB Diesel Risk Reduction Plan has led to the adoption of new state regulatory standards for all new on-road, off-road, and stationary diesel-fueled engines and vehicles to reduce DPM emissions by about 90 percent overall from year 2000 levels. The projected emission benefits associated with the full implementation of this plan, including federal measures, are reductions in DPM emissions and associated cancer risks of 75 percent by 2010, and 85 percent by 2020.

Tanner Air Toxics Act and Air Toxics Hot Spots Information and Assessment Act

Toxic Air Contaminants (TACs) in California are primarily regulated through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588), also known as the Hot Spots Act. To date, CARB has identified more than 21 TACs and has adopted the USEPA list of Hazardous Air Pollutants (HAPs) as TACs.

Carl Moyer Memorial Air Quality Standards Attainment Program

The Carl Moyer Memorial Air Quality Standards Attainment Program (Carl Moyer Program), a partnership between the CARB and local air districts, issues grants to replace or retrofit older engines and equipment with engines and equipment that exceed current regulatory requirements

to reduce air pollution. Money collected through the Carl Moyer Program complements California's regulatory program by providing incentives to effect early or extra emission reductions, especially from emission sources in environmental justice communities and areas disproportionately affected by air pollution.

The program has established guidelines and criteria for the funding of emissions reduction projects. Within the San Francisco Bay Area Air Basin (Air Basin), the BAAQMD administers the Carl Moyer Program. The program has established guidelines and criteria for the funding of emissions reduction projects. Within the Air Basin, the BAAQMD administers the Carl Moyer Program. The program establishes cost-effectiveness criteria for funding emission reductions projects, which under the final 2017 Carl Moyer Program Guidelines are $30,000 per weighted ton of NOX, ROG, and PM.

c. Regional and Local Regulations

Bay Area Clean Air Plan

The BAAQMD is responsible for assuring that the federal and state ambient air quality standards are attained and maintained in the Bay Area. BAAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, as well as many other activities.

BAAQMD adopted the *Bay Area Clean Air Plan: Spare the Air, Cool the Climate (Bay Area Clean Air Plan)* on April 19, 2017, as an update to the 2010 Clean Air Plan. The BAAQMD prepared the 2017 Clean Air Plan in cooperation with the Metropolitan Transportation Commission (MTC) and the ABAG. The goals of the 2017 Clean Air Plan are to reduce regional air pollutants and climate pollutants to improve the health of Bay Area residents for the next decades. The 2017 Clean Air Plan aims to lead the region into a post-carbon economy, continue progress toward attaining all State and federal air quality standards, and eliminate health risk disparities from air pollution exposure in Bay Area communities. The 2017 Clean Air Plan defines an integrated, multi-pollutant control strategy that includes 85 distinct feasible control measures to reduce emissions for four categories: ground-level ozone and its precursors, ROG and NO_X; PM (primarily $PM_{2.5}$, and precursors to secondary $PM_{2.5}$); TACs, and greenhouse gas emissions. The control measures are categorized based on the economic sector framework and include stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, and water. To protect public health, the control strategy will decrease population exposure to PM and TACs in communities that are most impacted by air pollution with the goal of eliminating disparities in exposure to air pollution between communities. The control strategy will also protect the climate by reducing greenhouse gas emissions and developing a long-range vision of how the Bay Area could look and function in a year 2050 post-carbon economy.

The focus of control measures includes aggressively targeting the largest source of GHG, ozone pollutants, and PM emissions: transportation. This includes more incentives for electric vehicle infrastructure, off-road electrification projects such as Caltrain and shore power at ports, and reducing emissions from trucks, school buses, marine vessels, locomotives, and off-road equipment. Additionally, the BAAQMD will continue to work with regional and local governments to reduce Vehicle Miles Traveled (VMT) through the further funding of rideshare, bike and shuttle programs.

BAAQMD Particulate Matter Plan

To fulfill federal air quality planning requirements, BAAQMD adopted a 2010 $PM_{2.5}$ emissions inventory in 2012. The Bay Area Clean Air Plan also included several measures for reducing PM emissions from stationary sources and wood burning. In 2013, USEPA issued a final rule determining that the Bay Area has attained the 24-hour $PM_{2.5}$ NAAQS, suspending federal SIP planning requirements for the SFBAAB. Despite this USEPA action, the SFBAAB will continue to be designated as nonattainment for the national 24-hour $PM_{2.5}$ standard until BAAQMD submits a redesignation request and a maintenance plan to USEPA, and USEPA approves the proposed redesignation.

The SFBAAB is in nonattainment for the federal PM_{10} and federal $PM_{2.5}$ standards. USEPA lowered the 24-hour $PM_{2.5}$ standard from 65 micrograms per cubic meter ($\mu g/m^3$) to 35 $\mu g/m^3$ in 2006, and designated the Air Basin as nonattainment for the new $PM_{2.5}$ standard effective December 14, 2009.

BAAQMD believes that it would be premature to submit a redesignation request and $PM_{2.5}$ maintenance plan at this time. Therefore, BAAQMD will prepare a "clean data" SIP to address the required elements, including:

- An emission inventory for primary $PM_{2.5}$, as well as precursors to secondary PM formation; and
- Amendments to the BAAQMD's New Source Review regulation to address $PM_{2.5}$.

The SFBAAB will continue to be designated as nonattainment for the 24-hour $PM_{2.5}$ NAAQS until the Air District elects to submit, and the EPA approves, a redesignation request and maintenance plan. At this time, BAAQMD does not have an applicable SIP with which the project would be required to comply. However, development facilitated by the project would be subject to the Bay Area Clean Air Plan, in addition to regulations set forth by BAAQMD as discussed in the following section.

BAAQMD Regulations

Regulation 2, Rule 1 (Permits–General Requirements)

The BAAQMD regulates new sources of air pollution and the modification and operation of existing sources through the issuances of authorities to construct and permits to operate. Regulation 2, Rule 1 provides an orderly procedure which the project would be required to comply with to receive authorities to construct or permits to operate from the BAAQMD, for new sources of air pollutants, as applicable.

Regulation 2, Rule 5 (New Source Review Permitting)

The BAAQMD regulates backup emergency generators, fire pumps, and other sources of TACs through its New Source Review (Regulation 2, Rule 5) permitting process. Although emergency generators are intended to be used only during periods of power outages, monthly testing of each generator is required. BAAQMD limits testing to no more than 50 hours per year. Each emergency generator installed is assumed to meet a minimum of Tier 2 emission standards (before control measures). As part of the permitting process, the BAAQMD limits the excess cancer risk from any facility to no more than 10 per 1-million-population for any permits that are applied for within a 2-year period, and would require any source that would result in an excess cancer risk greater than 1 per 1 million to install Best Available Control Technology for Toxics.

Regulation 6, Rule 1 (Particulate Matter–General Requirements)

The BAAQMD regulates PM emissions through Regulation 6 by means of establishing limitations on emission rates, emissions concentrations, and emission visibility and opacity. Regulation 6, Rule 1 provides existing standards for PM emissions that could result during project construction or operation that the project would be required to comply with, as applicable, such as the prohibition of emissions from any source for a period or aggregate periods of more than 3 minutes in any hour which are equal to or greater than 20 percent opacity.

Regulation 6, Rule 6, (Particulate Matter–Prohibition of Trackout)

One rule by which the BAAQMD regulates PM includes Regulation 6, Rule 6, which prohibits PM trackout during project construction and operation. Regulation 6, Rule 6 requires the prevention or timely cleanup of trackout of solid materials onto paved public roads outside the boundaries of large bulk material sites, large construction sites, and large disturbed surface sides such as landfills.

Regulation 8, Rule 3 (Architectural Coatings)

This rule governs the manufacture, distribution, and sale of architectural coatings and limits the reactive organic gases content in paints and paint solvents. Although this rule does not directly apply to the project, it does dictate the ROG content of paint available for use during the construction.

Regulation 8, Rule 15 (Emulsified and Liquid Asphalts)

Although this rule does not directly apply to the project, it does dictate the reactive organic gases content of asphalt available for use during construction by regulating the sale and use of asphalt and limiting the ROG content in asphalt.

Regulation 1, Rule 301 (Odorous Emissions)

BAAQMD enforces odor control by helping the public to document a public nuisance. Upon receipt of a complaint, BAAQMD sends an investigator to interview the complainant and to locate the odor source if possible. BAAQMD typically brings a public nuisance court action when there are a substantial number of confirmed odor events within a 24-hour period. An odor source with five or more confirmed complaints per year averaged over 3 years is considered to have a substantial effect on receptors. Several BAAQMD regulations and rules apply to odorous emissions. Regulation 1, Rule 301 is the nuisance provision that states that sources cannot emit air contaminants that cause nuisance to a number of persons. Regulation 7 specifies limits for the discharge of odorous substances where BAAQMD receives complaints from 10 or more complainants within a 90-day period. Regulation 7 also precludes discharge of an odorous substance that causes the ambient air at or beyond the property line to be odorous after dilution with 4 parts of odor-free air, and specifies maximum limits on the emission of certain odorous compounds.

Regulation 9, Rule 8 (Inorganic Gaseous Pollutants–Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines)

Under Regulation 9, Rule 8, the BAAQMD regulates the emissions of nitrogen oxides and carbon monoxide from stationary internal combustion engines with an output rated by the manufacturer at more than 50 brake horsepower. As such, any proposed stationary source equipment (e.g., backup generators, fire pumps) which would be greater than 50 horsepower would require a BAAQMD permit under Regulation 9, Rule 8 to operate.

Regulation 11, Rule 2 (Hazardous Pollutants–Asbestos Demolition, Renovation, and Manufacturing)

Under Regulation 11, Rule 2, the BAAQMD regulates emissions of asbestos to the atmosphere during demolition, renovation, milling, and manufacturing and establishes appropriate waste disposal procedures. Any of these activities which pose the potential to generate emissions of airborne asbestos are required to comply with the appropriate provisions of this regulation.

Plan Bay Area

On October 2021, the MTC approved Plan Bay Area 2050. Plan Bay Area includes integrated land use and transportation strategies for the region and was developed through OneBayArea, a joint initiative between ABAG, BAAQMD, MTC, and the San Francisco Bay Conservation and Development Commission. Plan Bay Area is also considered the ABAG/MTC Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). In accordance with SB 743, Plan Bay Area included elements designed to encourage the type of land-use development to meet three primary objectives. First, Roadway Level of Service (LOS) could not be considered an environmental impact under the California Environmental Quality Act (CEQA). Second, it introduced changes to Vehicle Miles Traveled (VMT) per capita as a determinant of environmental impact. Third, the use of VMT as an environmental impact in CEQA is considered a mechanism for achieving State and regional GHG reduction goals. As a regional land use plan, Plan Bay Area aims to reduce per-capita GHG emissions through the promotion of more compact, mixed-use residential and commercial neighborhoods located near transit (ABAG; MTC 2021).

American Canyon General Plan

The current American Canyon General Plan contains objectives and policies that help address air quality and reduce the community's vulnerability to air pollution. The following objectives and policies from the City's General Plan are relevant to air quality and apply to the project:

Goal 8F: Reduce consumption of nonrenewable energy sources and support the development and utilization of new energy sources.

Objective 8.22: Minimize transportation-related energy consumption.

> **Policy 8.22.1**: Encourage the development of mixed use, pedestrian friendly employment/residential centers that help minimize vehicle trips in American Canyon and contribute to a reduction in energy consumption.
>
> **Policy 8.22.3**: Require that Development Plans provide for linkages between bicycle and pedestrian circulation systems and transit and employment centers, in accordance with established areawide plans.
>
> **Policy 8.22.4**: Maintain a system of traffic signals and controls that minimizes waiting time and vehicle speed changes through routes.
>
> **Policy 8.22.5**: Require that Development Plans provide for High-Occupancy Vehicles (HOV) and public transportation, where feasible, through the provision of appropriate transit areas and park-and-ride locations along public transportation routes.

Objective 8.23: Reduce Energy consumption in buildings.

Policy 8.23.1: Require that developers employ energy-efficient subdivision and site planning methods as well as building design. Measures to be considered include building orientation and shading, landscaping, building reflectance, use of active and passive solar heating and hot water system, etc. In establishing these energy related design requirements, the City shall balance energy-efficient design with good planning principles.

Objective 1.37: Consider initiatives to reduce direct and indirect greenhouse gas (GHG) emissions from transportation sources, and from new, renovated, and existing development in the City.

Policy 1.37.6: Reduce vehicle engine idling in American Canyon by educating the broader community (i.e., businesses, commuters, residents) on the greenhouse gas impacts caused by engine idling, and implementing feasible commercial vehicle regulations.

4.3.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on air quality if it would:

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 nonattainment under an applicable federal or state ambient air quality standard;
3. Expose sensitive receptors to substantial pollutant concentrations; or
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

This analysis uses the BAAQMD 2017 *CEQA Air Quality Guidelines* to evaluate air quality.

Construction Criteria Pollutant and TAC Emissions

Construction-related emissions are limited in duration but may still cause adverse air quality impacts. Construction would generate emissions from three primary sources: the operation of construction vehicles (e.g., scrapers, loaders, dump trucks, etc.); ground disturbance during site preparation and grading, which creates fugitive dust; and the application of asphalt, paint, or other oil-based substances.

At this time, the pace, location, and duration associated with construction are not sufficiently detailed to quantify a specific emission impact, and thus it would be speculative to do so. Rather, construction criteria pollutant and TAC emissions impacts for the project are discussed qualitatively, pursuant to the BAAQMD 2017 *CEQA Air Quality Guidelines*.

Operation Criteria Pollutant and TAC Emissions

Based on plan-level guidance from the BAAQMD 2017 *CEQA Air Quality Guidelines,* long-term operational criteria pollutant and TAC emissions associated with implementation of the project are discussed qualitatively by comparing the project to the 2017 Clean Air Plan goals, policies, and

control measures. In addition, comparing the rate of increase of plan VMT and population is recommended by BAAQMD for determining significance of criteria pollutants. If the project does not meet either criterion, then impacts would be potentially significant.

Odors

The impact analysis qualitatively evaluates the types of land uses facilitated by the project to evaluate whether major sources of anticipated odors would be present and, if so, whether those sources would likely generate objectionable odors. According to the BAAQMD 2017 *CEQA Air Quality Guidelines*, the project-level threshold for odor sources is if they result in five confirmed complaints per year averaged over three years within the screening distance for land uses shown in Table 3-3 of the guidelines (BAAQMD 2017b). The plan-level threshold states to identify the location and include policies to reduce the impacts of existing or planned sources of odors. None of the land uses identified as odor sources in the 2017 guidelines are planned as part of the project. The significance thresholds for odor impacts are qualitative in nature. Specifically, an odor-generating source with five or more confirmed complaints in the new source area per year averaged over three years is considered to have a significant impact on receptors within the screening distances provided in the guidelines.

Methodology

Consistency with Air Quality Plan

The applicable air quality plan is the BAAQMD 2017 Bay Area Clean Air Plan, which identifies measures to:

- Reduce emissions and reduce ambient concentrations of air pollutants; and
- Safeguard public health by reducing exposure to the air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution.

The project would be consistent with the Bay Area Clean Air Plan if it would support the Clean Air Plan goals, include applicable control measures, and not disrupt or hinder implementation of Clean Air Plan. Consistency with the Clean Air Plan is the basis for determining whether the project would conflict with or obstruct implementation of an applicable air quality plan.

Construction Criteria Pollutant and TAC Emissions Thresholds

BAAQMD's 2017 *CEQA Air Quality Guidelines* have no plan-level significance thresholds for construction air pollutants emissions. However, they do include the individual project-level thresholds for construction-related and long-term operational emissions of air pollutants. These thresholds represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. Construction emissions associated with implementation of the project are discussed qualitatively to evaluate potential air quality impacts.

For health risks associated with TAC and $PM_{2.5}$ emissions, the BAAQMD 2017 *CEQA Air Quality Guidelines* state a project would result in a significant impact if the any of the following thresholds are exceeded:

- Non-compliance with Qualified Community Risk Reduction Plan;
- Increased cancer risk of > 10.0 in a million;

- Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute); or
- Ambient $PM_{2.5}$ increase of > 0.3 µg/m^3 annual average

In addition, a project would have a cumulatively considerably impact associated with health risks from TAC and $PM_{2.5}$ emissions if the aggregate total emissions of all past, present, and foreseeable future sources within a 1,000-foot radius of the fenceline of the source plus the project's contribution exceed any of the following thresholds:

- Non-compliance with Qualified Community Risk Reduction Plan;
- Increased cancer risk of > 100.0 in a million;
- Increased non-cancer risk of > 10.0 Hazard Index (Chronic or Acute); or
- Ambient $PM_{2.5}$ increase of > 0.8 µg/m^3 annual average

Operational Criteria Pollutant and TAC Emissions Thresholds

BAAQMD's 2017 *CEQA Air Quality Guidelines* contain specific operational plan-level significance thresholds for criteria air pollutants. Plans must show the following over the planning period:

- Consistency with current air quality plan control measures
- VMT or vehicle trips increase is less than or equal to the plan's projected population increase

If a plan can demonstrate consistency with both of these criteria, then impacts are considered less than significant. The same thresholds listed above for construction health risks from TAC and $PM_{2.5}$ would apply to operation.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project conflict with or obstruct implementation of the applicable air quality plan?

Impact AQ-1 THE PROJECT WOULD BE CONSISTENT WITH THE BAAQMD'S 2017 CLEAN AIR PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Under BAAQMD's methodology, a determination of consistency with *CEQA Guidelines* thresholds should demonstrate that a project:

- Supports the primary goals of the 2017 Clean Air Plan;
- Includes applicable control measures from the 2017 Clean Air Plan; and
- Does not disrupt or hinder implementation of any 2017 Clean Air Plan control measures.

The following includes a discussion of consistency with these criteria for the project. The 2017 Clean Air Plan contains 85 control measures aimed at reducing air pollution and protecting the climate in the Bay Area. For consistency with climate planning efforts at the State level, the control strategies in the 2017 Clean Air Plan are based on the same economic sector framework used by CARB, which encompass stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants (such as methane and hydrofluorocarbons). Table 4.3-4 identifies applicable control measures and discusses project consistency with the 2017 Clean Air Plan.

Table 4.3-4 Clean Air Plan Control Measures Consistency Analysis

Control Measures	Consistency
Stationary Sources	
SS18: Basin-Wide Combustion Strategy. Stabilize and then reduce emissions of GHGs, criteria air pollutant and toxic emissions from stationary combustion sources throughout the Air District by first establishing carbon intensity caps on major GHG sources, and then adopting new rules to (1) reduce fuel use on a source-type by source-type basis, and (2) evaluate alternatives to decarbonize abatement devices.	**Consistent.** Stationary sources are regulated directly by BAAQMD, which routinely adopts/revises rules or regulations to implement the Stationary Source control measures to reduce stationary source emissions. Therefore, any new stationary sources associated with the project would be required to comply with BAAQMD's regulations.
SS21: New Source Review for Air Toxics. Propose revisions to Air District Rule 2-5, New Source Review of Toxic Air Contaminants, based on OEHHA's 2015 Health Risk Assessment Guidelines and CARB/ CAPCOA's 2015 Risk Management Guidance. Revise the Air District's health risk assessment trigger levels for each toxic air contaminant using the 2015 Guidelines and most recent health effects values.	
Transportation	
TR2: Trip Reduction Programs. Implement the regional Commuter Benefits Program (Rule 14-1) that requires employers with 50 or more Bay Area employees to provide commuter benefits. Encourage trip reduction policies and programs in local plans, e.g., general and specific plans, while providing grants to support trip reduction efforts. Encourage local governments to require mitigation of vehicle travel as part of new development approval, to adopt transit benefits ordinances in order to reduce transit costs to employees, and to develop innovative ways to encourage rideshare, transit, cycling, and walking for work trips. Fund various employer-based trip reduction programs.	**Consistent**: Development facilitated by the project would promote compatible land uses resulting in City residents living and working in closer proximity to each other. Parcels designated as Paoli Light Industrial and Paoli Commercial Overlay District would allow for commercial and commercially-related uses that would facilitate vehicle access and proximity of jobs near housing within the City. The project would be consistent with the build-out street network envisioned by the American Canyon General Plan Circulation Element, and the bikeway network envisioned by the American Canyon Bicycle Plan, that includes the extension of Newell Drive north from its current terminus concurrent with future development, including the project site. As envisioned, Newell Drive would eventually connect American Canyon Boulevard in the south with SR 29 at Green Island Road, at the northwest corner of the project site. The future extension would be a 2-lane collector with one motor vehicle lane in each direction, bicycle lanes and sidewalks. The project would not preclude the future provision of bicycle paths along the Union Pacific Railroad tracks, consistent with the American Canyon Bicycle Plan. In addition, Mitigation Measure GHG-1 (see Section 4.8, *Greenhouse Gas Emissions*) would require that industrial and commercial operators establish and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation including carpooling, public transit, and biking.
TR13: Parking Policies. Encourage parking policies and programs in local plans, e.g., reduce minimum parking requirements; limit the supply of off-street parking in transit-oriented areas; unbundle the price of parking spaces; support implementation of demand-based pricing (such as "SF Park") in high-traffic areas.	**Consistent**: Future development would be required to comply with existing City parking standards. In addition, per Mitigation Measure GHG-1, the project would achieve compliance with off-street Tier 2 EV parking requirements by land use type in the most recently adopted version of CALGreen. Additionally, Mitigation Measure GHG-1 would require that industrial and commercial operators establish

Control Measures	Consistency
	and promote a rideshare program that discourages single-occupancy vehicle trips and provides financial incentives for alternate modes of transportation including carpooling, public transit, and biking.
Energy	
EN1: Decarbonize Electricity Production. Engage with PG&E, municipal electric utilities and CCEs to maximize the amount of renewable energy contributing to the production of electricity within the Bay Area as well as electricity imported into the region. Work with local governments to implement local renewable energy programs. Engage with stakeholders including dairy farms, forest managers, water treatment facilities, food processors, public works agencies and waste management to increase use of biomass in electricity production. **EN2: Decrease Electricity Demand**. Work with local governments to adopt additional energy-efficiency policies and programs. Support local government energy efficiency program via best practices, model ordinances, and technical support. Work with partners to develop messaging to decrease electricity demand during peak times.	**Consistent.** Measures EN1 and EN2 are intended to decrease energy use as a means of reducing adverse air quality emissions. Additionally, buildings developed as part of the project would comply with 2022 Building Energy Efficiency Standards (or most recent version of the California Building Code) requirements that commercial buildings be electric-ready and standards for expanded solar and battery storage. The Building Energy Efficiency Standards are updated every three years and the project would be subject to the 2022 California Building Standards when they go into effect on January 1, 2023.
Buildings	
BL1: Green Buildings. Collaborate with partners such as KyotoUSA to identify energy-related improvements and opportunities for on-site renewable energy systems in school districts; investigate funding strategies to implement upgrades. Identify barriers to effective local implementation of the CALGreen (Title 24) statewide building energy code; develop solutions to improve implementation/enforcement. Work with ABAG's BayREN program to make additional funding available for energy-related projects in the buildings sector. Engage with additional partners to target reducing emissions from specific types of buildings. **BL2: Decarbonize Buildings.** Explore potential Air District rulemaking options regarding the sale of fossil fuel-based space and water heating systems for both residential and commercial use. Explore incentives for property owners to replace their furnace, water heater or natural-gas powered appliances with zero-carbon alternatives. Update Air District guidance documents to recommend that commercial and multi-family developments install ground source heat pumps and solar hot water heaters.	**Consistent**: Measures BL1 and BL2 focus on working with local governments to adopt the best GHG emissions control practices and policies. As discussed above for the Energy and Climate control measures, buildings developed as part of the project would comply with 2022 Building Energy Efficiency Standards' (or most recent version of the California Building Code) requirements that commercial buildings be electric-ready and standards for expanded solar and battery storage. The Building Energy Efficiency Standards are updated every three years and the project would be subject to the 2022 California Building Standards when they go into effect on January 1, 2023.
Waste Management Control Measures	
WA4: Recycling and Waste Reduction. Develop or identify and promote model ordinances on community-wide zero waste goals and recycling of construction and demolition materials in commercial and public construction projects	**Consistent.** Measure WA4 include strategies to increase waste diversion rates through efforts to reduce, reuse, and recycle. Development under the project would comply with Assembly Bill (AB) 341, which requires mandatory commercial recycling for businesses that generate four cubic yards or more of commercial solid waste per week. For further discussion of waste diversion, please refer to Section 4.17, *Utilities and Service Systems.*

BAAQMD has identified examples of how a project or plan may disrupt or delay local government implementation of these control measures, such as a project that may preclude an extension of a transit line or bike path, or that propose excessive parking beyond parking requirements. Development within the project area would not disrupt or delay local government implementation of control measures. The future Newell Drive extension would be a 2-lane collector with one motor vehicle lane in each direction, bicycle lanes, and sidewalks. The project would not preclude the future provision of bicycle paths along the Union Pacific Railroad tracks, consistent with the American Canyon Bicycle Plan.

Overall, the project would be consistent with the three criteria for evaluating consistency with the 2017 Clean Air Plan. As such, the project would not conflict with or obstruct implementation of the applicable air quality plan, and this impact would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2:	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?

Impact AQ-2 THE PROJECT WOULD NOT RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF OPERATIONAL CRITERIA POLLUTANTS. IMPACTS FROM CONSTRUCTION WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION. IMPACTS FROM OPERATION WOULD BE LESS THAN SIGNIFICANT.

Construction

The project would involve activities that result in air pollutant emissions. Specifically, construction activities such as demolition, grading, construction worker travel, delivery and hauling of construction supplies and debris, and fuel combustion by on-site construction equipment would generate pollutant emissions. These construction activities would create emissions of dust, fumes, equipment exhaust, and other air contaminants, particularly during site preparation and grading. The extent of daily emissions, particularly ROGs and NO_X emissions, generated by construction equipment, would depend on the quantity of equipment used and the hours of operation for each project. The extent of $PM_{2.5}$ and PM_{10} emissions would depend upon the following factors: 1) the amount of disturbed soils; 2) the length of disturbance time; 3) whether existing structures are demolished; 4) whether excavation is involved; and 5) whether transporting excavated materials offsite is necessary. Dust emissions can lead to both nuisance and health impacts. According to the 2017 BAAQMD *CEQA Air Quality Guidelines,* $PM_{2.5}$ is the greatest pollutant of concern during construction.

The BAAQMD 2017 *CEQA Air Quality Guidelines* have no plan-level significance thresholds for construction air pollutant emissions that would apply to the project. However, the guidelines include project-level thresholds for construction emissions. If an individual project's construction emissions fall below the project-level thresholds, the project's impacts on regional air quality would be individually and cumulatively less than significant. The BAAQMD has also identified feasible fugitive dust control measures for construction activities. These Basic Construction Mitigation

Measures are recommended for all projects. In addition, the BAAQMD and CARB have regulations that address the handling of hazardous air pollutants such as lead and asbestos, which could be aerially disbursed during demolition activities. BAAQMD rules and regulations address both the handling and transport of these contaminants. Construction of development facilitated by the project would temporarily increase air pollutant emissions, possibly creating localized areas of unhealthy air pollution concentrations or air quality nuisances, resulting in a potentially significant impact.

However, implementation of the BAAQMD Basic Construction Mitigation Measures, which would be required with implementation of Mitigation Measures AQ-1, during future project-level construction would reduce fugitive dust emissions from construction activities. Actions include watering onsite and reducing vehicle speed on unpaved roads to limit the amount of soil and dust disturbed. With implementation of Mitigation Measure AQ-1, cumulative construction impacts associated with violating an air quality standard or contributing substantially to an existing or projected air quality violation in terms of criteria air pollutant emissions would be less than significant with mitigation.

Operation

The greatest source of criteria pollutants in American Canyon is and would continue to be from transportation sources, specifically mobile emissions from roadway traffic. The project emphasizes reducing VMT on area roadways through emphasizing greater mixed use in the area and proximity of residents to jobs. According to the BAAQMD 2017 *CEQA Air Quality Guidelines,* the threshold for criteria air pollutants and precursors requires a comparison of the percent increase in VMT and population. Table 4.3-5 summarizes the net increase in population versus VMT for cumulative plus project buildout conditions based on data provided by GHD (2022).

Table 4.3-5 Comparison of VMT and Population Increase due to the Project

Scenario	Existing	Cumulative Plus Project Buildout [a]	Net Increase
Population	22,959	29,001	6,042
Percentage change			26%
VMT	562,492	568,813	6,321
Percentage change			1%

Note:
[a] Cumulative Conditions with the project is based on Year 2045 citywide residential and commercial growth, as well as projected regional land use growth
Source: GHD 2022

The project emphasizes changing land uses to concentrate growth and jobs and services near residences to reduce singular vehicle trips. As shown in Table 4.3-5, the City's population increase would be proportionately greater than the VMT increase. If a plan's VMT increase, under the cumulative condition, is less than or equal to the plan's projected population increase, impacts to operational criteria pollutant emissions would be less than significant. As such, impacts from project operation would be less than significant.

Mitigation Measures

AQ-1 Implement BAAQMD Basic Construction Mitigation Measures

To reduce fugitive dust emissions from the construction of individual projects, the applicant shall implement the BAAQMD Basic Construction Mitigation Measures. The BAAQMD Basic Construction Mitigation Measures are listed below:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times a 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.
- 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.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacture's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper conditions prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the City of American Canyon regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's number shall also be visible to ensure compliance with applicable regulations.

Significance After Mitigation

Impacts on criteria air pollutants during construction would be less than significant after implementation of Mitigation Measure AQ-1.

Threshold 3:	Would the project expose sensitive receptors to substantial pollutant concentrations?

Impact AQ-3 CONSTRUCTION ACTIVITIES FOR FUTURE INDIVIDUAL PROJECTS LASTING LONGER THAN TWO MONTHS OR LOCATED WITHIN 1,000 FEET OF SENSITIVE RECEPTORS COULD EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS. IMPLEMENTATION OF THE PROJECT MAY ALSO EXPOSE SENSITIVE RECEPTORS TO OPERATIONAL SOURCES OF TOXIC AIR CONTAMINANTS. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Construction

The project would result in Diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment associated with site preparation (e.g., excavation, grading, clearing), building

construction, and other miscellaneous construction activities. The potential cancer risk from inhaling DPM, as discussed below, outweighs the potential non-cancer[2] health impacts (CARB 2022b).

Generation of DPM from construction typically occurs in a single area for a short period. Project construction would occur over approximately seven years (assuming a buildout year of 2030), but use of diesel-powered construction equipment in any one area would likely occur for no more than a few years for an individual project and would cease when construction is completed in that area. It is impossible to quantify risk without identified specific project details and locations.

The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has with the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the Maximally Exposed Individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period. According to the California Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 70-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the development (OEHHA 2015). BAAQMD uses an exposure period of 30 years (BAAQMD 2016).

The maximum PM_{10} and $PM_{2.5}$ emissions would occur during demolition, site preparation and grading activities, which would only occur for a portion of the overall estimated timeframe of seven years for individual project construction. These activities would typically last for approximately two weeks to two years, depending on the extent of grading and excavation required (e.g., projects with subterranean parking structures or geological constraints require additional grading as compared to those without). PM_{10} and $PM_{2.5}$ emissions would decrease for the remaining construction period because construction activities such as building construction and architectural coating would require less intensive construction equipment. While the maximum DPM emissions associated with demolition, site preparation, and grading activities would only occur for a portion of the overall construction period, these activities represent the worst-case condition for the total construction period. This would represent between 0.1 to 7 percent of the total 30-year exposure period for health risk calculation.

Future development facilitated by the project would also be required to be consistent with the applicable 2017 Clean Air Plan, BAAQMD regulatory requirements and control strategies, and the CARB In-Use Off-Road Diesel Vehicle Regulation, which are intended to reduce emissions from construction equipment and activities. Additionally, future development facilitated by the project would be required to comply with Mitigation Measure AQ-1 requiring implementation of construction emission measures which would reduce construction-related TACs. According to the OEHHA, construction of individual projects lasting longer than two months or placed within 1,000 feet of sensitive receptors could potentially expose nearby sensitive receptors to substantial pollutant concentrations and therefore could result in potentially significant risk impacts. These future projects could exceed BAAQMD's thresholds of an increased cancer risk of greater than 10.0 in a million and an increased non-cancer risk of greater than 1.0 Hazard Index (Chronic or Acute). Therefore, construction impacts from TAC emissions would be potentially significant. However, implementation of Mitigation Measure AQ-2 would require the preparation of a Construction

[2] Non-cancer risks include premature death, hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma, increased respiratory symptoms, and decreased lung function (CARB 2021a).

Health Risk Assessment for new projects and the Newell Drive Extension and would mitigate potential construction-related TACs exposure impacts to a less than significant level.

Operation

Buildout facilitated by the project would potentially site land uses that typically generate TAC, such as industrial land uses, in proximity to residential land uses. Additionally, if the proposed commercial uses site a new stationary TAC source, like an emergency generator, then said stationary source would be required to receive a permit from BAAQMD. The permitting process would ensure that the stationary source does not present a health risk to existing nearby sensitive receptors.

New industrial or warehousing operations could generate substantial DPM emissions from off-road equipment use and truck idling. In addition, some warehousing and industrial facilities may include use of Transport Refrigeration Units for cold storage. Such potential future uses could generate an increase in DPM that would contribute to cancer and noncancer health risk at nearby sensitive receptors. Without project-specific analysis health risk impacts from nonpermitted sources associated with development of industrial and commercial land uses are considered significant. Implementation of Mitigation Measure AQ-3, which would require the preparation of an Operational Health Risk Assessment would reduce this impact to a less than significant level.

In addition, the proposed extension of Newell Drive would add a new source of TAC emissions to the project area that could adversely affect sensitive receptors residing in close proximity. For roadways, BAAQMD has developed a Roadway Screening Analysis Calculator to assess whether new roadways with traffic volumes over 10,000 vehicles per day may have a potentially significant impact. Project-specific data was input to the screening calculator such as the county, roadway direction, and future vehicle volume. Based on traffic data, under cumulative plus project conditions, the Newell Drive extension is estimated to have up to 28,072 vehicles per day (GHD 2022). The nearest off-site sensitive receptor to the proposed extension is a residence located approximately 850 feet to the south on Watson Lane. At this distance, the increased cancer risk at the nearest off-site residence would be up to 1.6 in one million, which would not exceed the BAAQMD significance threshold of 10 in one million increased cancer risk. The annual $PM_{2.5}$ concentration would be up to 0.04 ug/m^3, which would not exceed the BAAQMD significance threshold of 0.3 ug/m^3. Therefore, community health risk impacts from the proposed Newell Drive Extension would be less than significant.

Mitigation Measures

AQ-2 Conduct Construction Health Risk Assessment

Prior to issuance of a grading or building permit, whichever occurs first, the applicant shall submit to the City a construction health risk assessment (HRA) in accordance with BAAQMD recommendations for any development project (including the proposed Newell Drive extension) that has at least one the following characteristics:

- The project is located within 1,000 feet of sensitive receptors.
- Project construction would last longer than two months.
- Project construction would not utilize equipment rated USEPA Tier 4 (for equipment of 50 horsepower or more); construction equipment fitted with Level 3 Diesel Particulate Filters (for all equipment of 50 horsepower or more); or alternative fuel construction equipment.

If the HRA determines that construction will exceed BAAQMD significance thresholds, the HRA shall provide mitigation measures to reduce the impact to less than significant, including but not limited to requiring the use of Tier 4 engines, Level 3 Diesel Particulate Filters, and/or alternative fuel construction equipment.

AQ-3 Conduct Operational Health Risk Assessment

Prior to submittal of a subsequent discretionary development permit application for industrial, warehousing, or commercial land uses that would generate at least 100 diesel trucks per day or 40 or more trucks with diesel-powered transport refrigeration units per day, the applicant shall submit an operational health risk assessment (HRA) or submit proof that an HRA is not required in accordance with BAAQMD thresholds. If required, the operational HRA shall be prepared in accordance with the Office of Environmental Health Hazard Assessment and BAAQMD requirements, and mitigated to an acceptable level. Typical measures to reduce risk impacts may include, but are not limited to:

- Restricting idling on-site beyond Air Toxic Control Measures idling restrictions, as feasible.
- Electrifying warehousing docks.
- Truck Electric Vehicle (EV) Capable trailer spaces.
- Requiring use of newer equipment and/or vehicles.
- Restricting off-site truck travel through the creation of truck routes.

The operational HRA shall be provided to the City for review and concurrence prior to project approval.

Significance After Mitigation

Construction and operational related TACs exposure impacts would be less than significant with implementation of Mitigation Measures AQ-2 and AQ-3.

Threshold 4:	Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Impact AQ-4 THE PROJECT WOULD NOT CREATE OBJECTIONABLE ODORS THAT COULD ADVERSELY AFFECT A SUBSTANTIAL NUMBER OF PEOPLE. IMPACTS RELATED TO ODORS WOULD BE LESS THAN SIGNIFICANT.

Construction of the project would require the operation of construction equipment and asphalt paving, which could generate oil, diesel fuel, and asphalt odors. The odors would be limited to the construction period and would be temporary. Therefore, odors emitted from the construction of individual future projects under the project would be less than significant.

As stated in the BAAQMD *CEQA Guidelines,* land uses typically producing objectionable odors include agricultural uses, wastewater treatment plants, food manufacturing plants, chemical plants, composting, refineries, landfills, and confined animal facilities. Development facilitated by the project would include commercial and light industrial uses, such as research & development. These land uses typically do not produce objectionable odors. Odors from new developments proposed under the project would also be evaluated under BAAQMD Regulation 7: Odorous Substances, the standard BAAQMD odor complaint procedures, and would be required to implement applicable best management practices that would limit exposure of new sensitive receptors to odors. Other odors from buildout of the project would be limited to odors associated with vehicle and engine exhaust

and idling; however, odors from vehicles are not stationary and are dispersed throughout the roadway network. Therefore, operational odor impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Leve of Significance

Impacts would be less than significant without mitigation.

4.3.4 Cumulative Impacts

The geographic scope of the cumulative air quality analysis is the regional air basin, specifically the SFBAAB. The cumulative analysis considers the nearby past, present, and reasonably foreseeable future plans and projects within the City in addition to proposed plans.

Criteria Air Pollutants

The SFBAAB is in non-attainment for federal standards of ozone and $PM_{2.5}$ and in non-attainment for the State standard for ozone, $PM_{2.5}$, and PM_{10}. The SFBAAB is in attainment of all other federal and State standards. Development facilitated by the project would generate particulate matter and the ozone precursors (ROG and NO_X) in the area during construction and operation. As described under Impact AQ-1, the project would be inconsistent with the overall goal of the 2017 Clean Air Plan control measures as development facilitated by the project would potentially include light industrial land uses. However, future projects would comply with the latest Title 24 regulations and would increase density in urban areas in proximity to transit, allowing for greater use of alternative modes of transportation. Development facilitated by the project does not contain elements that would disrupt or hinder implementation of any 2017 Clean Air Plan control measures. In addition, the project would support the primary goals of the 2017 Clean Air Plan. Discussion of these impacts considers the cumulative nature of criteria pollutants in the region. Therefore, project would not result in a cumulatively considerable contribution to a conflict with or obstruction of implementation of the applicable air quality plan.

As described under Impact AQ-2, future construction facilitated by the project would temporarily increase air pollutant emissions, possibly creating localized areas of unhealthy air pollution levels or air quality nuisances. BAAQMD has identified feasible fugitive dust control measures for construction activities because fugitive PM_{10} and $PM_{2.5}$ is of concern. These temporary impacts would be mitigated with Mitigation Measure AQ-1. Discussion of these impacts considers the cumulative nature of criteria pollutants in the region; therefore, with mitigation the project would not result in a cumulatively considerable net increase of a criteria pollutant from construction emissions.

In addition, as described under Impact AQ-2, the cumulative plus project scenario would result in an increase of population that would proportionally exceed the projected VMT increase. Therefore, per the BAAQMD CEQA Air Quality Guidelines for operational emissions from plans, impacts from operational criteria pollutants would be cumulatively less than significant.

Toxic Air Contaminants

As identified under Impact AQ-3, development facilitated by the project would not have a significant impact from CO hotspots or TACs. Discussion of these impacts considers the cumulative nature of

the pollutants in the region. In other words, the cancer risk and non-cancer risk thresholds have been set per existing cancer risks in the area and exceeding those thresholds would be considered a cumulative impact. As implementation of the project would not exceed those thresholds with identified mitigation, it would not expose sensitive receptors to a cumulatively considerable amount of substantial pollutant concentrations from CO hotspots or TACs. Therefore, the cumulative impact related to toxic air contaminants would be less than significant with mitigation.

Odors

As identified under Impact AQ-4, development facilitated by the project would not have a significant impact from odor emissions. Construction emissions would disperse rapidly with distance, and therefore construction projects near one another would not result in combined odors above those analyzed. In addition, development would not contain uses known to result in objectionable odors and therefore cumulative odor impacts from multiple development would not result in a cumulatively considerable increase in odors. Therefore, the cumulative impact related to odors would be less than significant.

4.4 Biological Resources

This section analyzes potential effects on biological resources related to implementation of the project. In October 2022, Rincon Consultants, Inc. prepared a Biological Resources Assessment (BRA), including a literature review and field reconnaissance survey to document existing site conditions, the potential presence of special-status biological resources (including plant and wildlife species), observed plant communities, waters and wetlands, and habitat for nesting birds. The following summarizes the findings of the assessment. The complete BRA is provided in Appendix B of this document.

4.4.1 Setting

a. Land Cover

The natural community/landcover descriptions listed below are based on the California Department of Fish and Wildlife (CDFW) California Wildlife Habitat Relationships classification scheme (CWHR) (Mayer and Laudenslayer 1988). Figure 4.4-1 shows the vegetation communities and land covers in the project site.

Non-Native Annual Grassland

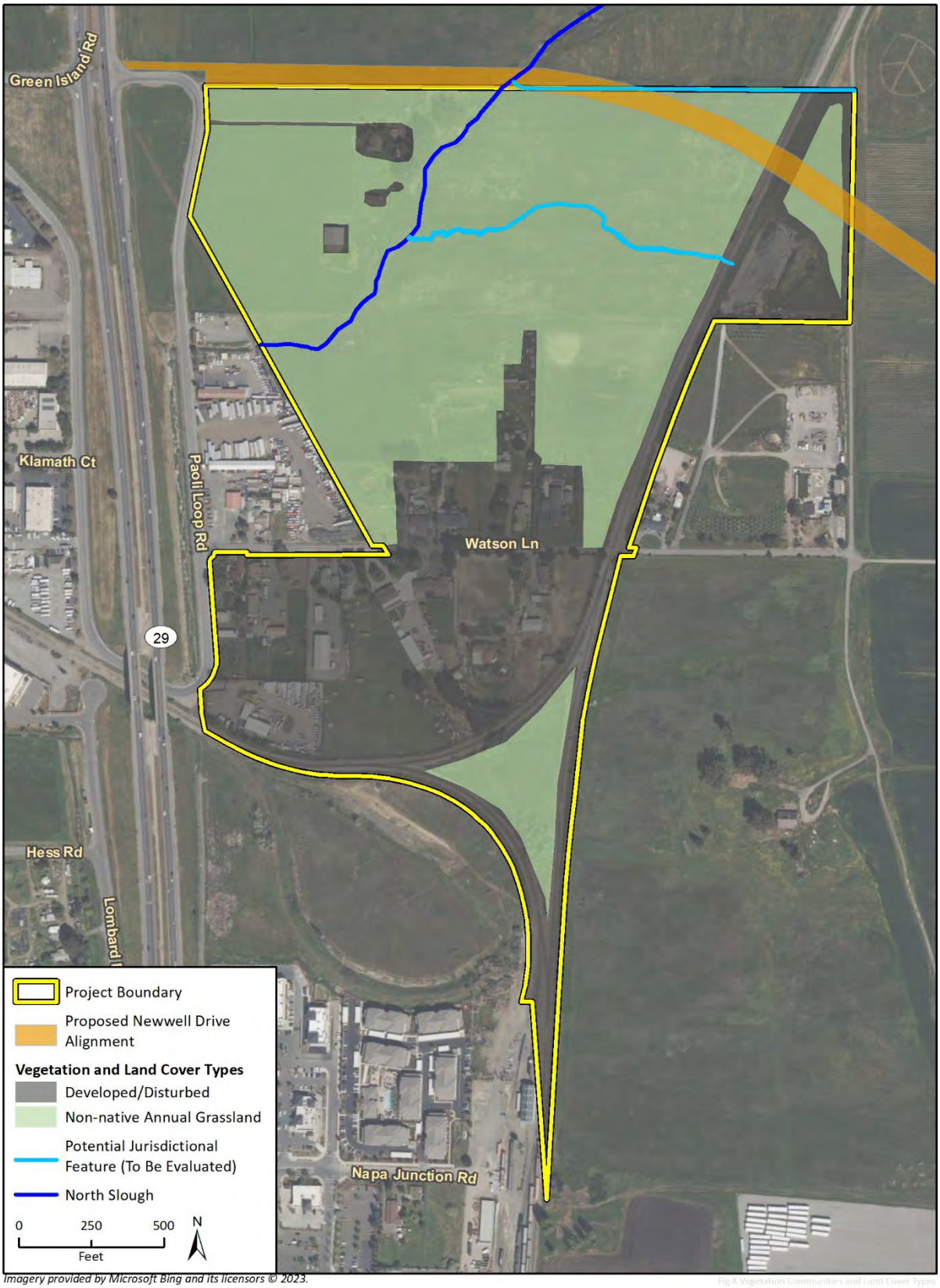
Annual grasslands are herbaceous communities composed primarily of annual grass and forb species. This vegetation community exists throughout the project site, where introduced annual grasses are the dominant plant species. The dominant species observed included slender wild oats (*Avena barbata*), ripgut brome (*Bromus diandrus*), Italian rye grass (*Festuca perennis*), false barley (*Hordeum murinum*), yellow-star thistle (*Centaurea solstitialis*), black mustard (*Brassica nigra*), fennel (*Foeniculum vulgare*).

Waters

The North Slough and its surrounding area include annual grassland, primarily dominated by non-native annual grasses with some coyote brush (*Baccharis pilularis*) in the uplands. The North Slough channel is mainly devoid of vegetation, though scattered patches of facultative hydrophytic species such as curly dock (*Rumex crispus*) were observed, and concrete lining is present in the channel near a wooden bridge over the North Slough. In addition, based on review of the U.S. Fish and Wildlife Service (USFWS) National Wetland Inventory, aerial imagery, and a site visit, there are some areas that drain to North Slough to the east of North Slough. These areas are covered with non-native annual grasses including scattered patches of Harding grass (*Phalaris aquatica*), pepperweed (*Lepidium latifolium*) and curly dock (Rumex crispus) interspersed with the grasses. It is not currently known whether these areas are jurisdictional features and as discussed further in Impact BIO-3, an evaluation as to whether these features are jurisdictional will be conducted in the future. North Slough is part of the Napa River watershed and drain runoff from the lands within and surrounding the project site.

The potential jurisdictional features have been historically diverted from their natural topographic drainages (i.e., the typical gradient being downhill and flowing north to south or east to west). The potential jurisdictional features originate on properties with vineyards to the east and are diverted through a system of culverts and ditches onto and through the project site, flowing into North Slough. The northern potential jurisdictional feature drains properties with vineyards to the east

Figure 4.4-1 Landcover Types within the Project Boundary



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and is piped approximately 0.25 mile under vineyards and Watson Lane, where it outfalls along the east side of the railroad tracks and flows through a culvert underneath the railroad tracks through the project site toward North Slough. The southern potential jurisdictional feature is more substantially and circuitously modified, originating as a natural topographic drainage on the property with vineyards to the southeast where it is diverted into a French drain and culvert system departing from its natural topographic drainage, running diagonally to the northwest under approximately 0.25 mile of vineyards. It outfalls out of a culvert into a ditch along the east side of Watson Lane where it flows south to north along Watson Lane, under Watson Lane through an east-west culvert system, continuing to the west in a linear ditch, then changing direction running south to north along the east side of the railroad tracks before it changes direction once more, flowing under the railroad tracks in an east-west facing culvert through the project site toward North Slough.

Urban

The urban land cover is completely anthropogenic and is composed of residential, commercial, and industrial development. Plant species within urban areas are typically comprised of ornamental plants and non-native invasive plant species, with large developed areas lacking vegetation.

b. Special-Status Species

For the purposes of this analysis, special-status species include the following:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA), including proposed and candidate species.
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA).
- Species designated as Fully Protected by the California Fish and Game Code (CFGC), and Species of Special Concern or Watch List by CDFW.
- Plant species protected by the Native Plant Protection Act (NPPA) (State Rare).
- Plant species with California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR) 1A, 1B, 2A and 2B.
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance, local policy, or HCPs/NCCPs.

Queries of the USFWS Information, Planning, and Conservation System (IPaC) (USFWS 2022a), California Natural Diversity Database (CNDDB) (CDFW 2022a), and California Native Plant Society (CNPS) online *Inventory of Rare and Endangered Plants of California* (CNPS 2022) were conducted to obtain comprehensive information regarding special-status species and sensitive vegetation communities known or with potential to occur in the project site. Query of the CNPS inventory and CNDDB database included the *Cordelia* and *Cuttings Wharf* U. S. Geological Service (USGS) 7.5-minute topographic quadrangle and surrounding 10 quadrangles (*Napa, Mt. George, Fairfield North, Fairfield South, Vine Hill, Benicia, Mare Island, Petaluma Point, Sears Point, and Sonoma*). The results of these scientific database queries are compiled in the BRA, which is provided as Appendix B of this EIR (see Appendix D of the BRA). A query of the USFWS' Critical Habitat Portal (USFWS 2022b) was conducted to determine if any USFWS-designated critical habitat occurs in the project site.

A total of 73 special-status plants and 54 special-status animals were identified within the 12 quadrangles queried (CNPS 2022 and CDFW 2022a). For the purposes of this analysis, special-status

species with low potential to occur will not be addressed further because these species have a low likelihood of being present within the vicinity of the project site. None of the special status plant species were determined to have a moderate or greater potential to occur within the project site. Of the 54 special-status wildlife species evaluated, three species, western burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), and white-tailed kite (*Elanus leucurus*), have a moderate potential to occur and are discussed further below. One species has a low potential to occur within the project site: American badger (*Taxidea taxus*). This species was determined to have a low potential to occur because the surrounding land is active agriculture and the railroad tracks, along with roads create a barrier to individuals dispersing into the project site. The remaining 50 special-status species are not expected to occur in the project site due to a lack of species-specific habitat requirements, the overall lack of suitable habitat such as natural vegetation communities or natural wetland habitats (e.g., marshes or seeps), and/or because the range of the species does not overlap with the project site. No federal or state-listed or other special-status wildlife species were observed during the field survey.

Western burrowing owl

Western burrowing owl is a CDFW Species of Special Concern that occupies open, treeless areas within grassland, low-density scrub, and desert biomes. This species generally inhabits gently sloping areas, characterized by low, sparse vegetation, and is often associated with high densities of burrowing mammals (Poulin et al. 2011). Western burrowing owl often uses relatively disturbed areas such as agricultural fields, golf courses, cemeteries, and vacant urban lots in addition to natural breeding habitats. Nests are most often in fossorial animal burrows, such as California ground squirrel or American badger, but atypical nests such as culverts or rubble piles may also be used. Nest sites are typically selected in an area with a high density of burrows.

There are nine occurrences within five miles of the project site, with the closest occurrence approximately 2 miles to the south. Suitable habitat is present throughout the project site within the nonnative annual grassland. Suitable burrows were observed throughout the project site. This species is known to occur throughout the region and is determined to have a moderate potential to occur within the project site.

Swainson's hawk

Swainson's hawk is listed as a state threatened species. The historical breeding range of Swainson's hawk in California included the Great Basin, Sacramento and San Joaquin Basins, the coast from Marin County to San Diego County, and scattered sites in the Mojave and Colorado Deserts (Bechard et al., 2020). The species continues to breed across its entire historical range, but in significantly lower numbers than historical numbers. Throughout most of its range, much of the native habitat has been converted to agricultural and urban uses, thereby limiting nesting and foraging opportunities for Swainson's hawk. This species is often found nesting in trees associated with scattered rural residences, particularly in relation to grasslands or dry-land grain fields. Throughout its range, the species nests almost exclusively in trees, typically on the edges of woodland adjacent to grass or shrubland habitat (Bechard et al. 2020).

There are several records of Swainson's hawks nesting within five miles of the project site, with the last record from 2013. No Swainson's hawks were observed during the reconnaissance survey. There is suitable nesting and foraging habitat within the project site. The nesting habitat in the project site is limited to eucalyptus trees and ornamental trees within the low-density housing area. Swainson's hawk has a moderate potential to forage and nest within the project site.

White-tailed kite

White-tailed kite is a CDFW fully protected species. A yearlong resident in coastal and valley lowlands, the species inhabits a wide range of habitats, mostly in cismontane California. The species prefers trees with dense canopies for cover. Their diet consists mostly of voles and other small, diurnal mammals, but the species occasionally feeds on birds, insects, reptiles, and amphibians. Typical foraging habitat is undisturbed, open grasslands, meadows, farmlands, and emergent wetlands. Nesting is typically near the top of dense oak, willow, or other tree stands, located near foraging areas. This species preferentially selects herbaceous lowlands with a range of woodland structure, and high density of voles (Zeiner et al. 1990), and substantial groves of dense, broad-leafed deciduous trees for nesting and roosting (Zeiner et. al. 1990).

The CNDDB contains no occurrence records for white-tailed kite within five miles of the project site. Ebird (eBird 2022) contains multiple records for white-tailed kite within five miles of the project site. The grassland areas within the project site provide foraging habitat and suitable nesting habitat is present in the project site.

c. Nesting Birds

Suitable nesting sites for avian species protected by the federal Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), including shrubs, trees, man-made structures, and the ground surface occur throughout the project site. Some species prefer vegetation for nesting, including ornamental vegetation and some species can be found nesting in man-made structures, such as power poles or the eaves of buildings. Nesting birds may occur during the breeding season (generally February 1 through August 31 but beginning January 1 for some raptor species).

d. Sensitive Vegetation Communities and Critical Habitat

The following five sensitive natural communities occur within the 12 quad search range (CDFW 2022a):

- Coastal Brackish Marsh
- Northern Coastal Salt Marsh
- Northern Vernal Pool
- Northern Claypan Vernal Pool
- Serpentine Bunchgrass

No natural vegetation communities considered sensitive by the CDFW occur in the project site.

Critical habitat for the following nine species occurs within the 12 quad search region (USFWS 2022b):

- Alameda Whipsnake *(Masticophis lateralis)*
- California red-legged frog *(Rana draytonii)*
- Chinook Salmon *(Oncorhynchus tshawytscha)*
- Green sturgeon *(Acipenser medirostris)*
- Western Snowy Plover
- vernal pool fairy shrimp
- Contra Costa goldfields

- Delta Smelt
- Northern Spotted Owl

No USFWS-designated critical habitat occurs in the project site.

e. Wildlife Movement Corridors

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats within the linkages do not necessarily need to be the same or of the same quality as the habitats that are being linked. Rather, the linkage merely needs to contain sufficient cover and forage to allow temporary inhabitation by ground-dwelling species. Typically, habitat linkages are contiguous strips of natural areas, though dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending upon the species using a corridor, specific physical resources (such as rock outcroppings, vernal pools, or oak trees) may need to be located within the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time.

Wildlife movement corridors can be both large and small scale. One essential connectivity area (ECA) is mapped by the California Essential Habitat Connectivity Project (CEHCP) along the eastern border of the project site (Spencer et.al 2010). The corridor connects natural landscape blocks east of American Canyon along the Howell Mountain range. From the hills north of the cities of Vallejo and Benicia it extends northwest, parallel with Napa Valley to the Lake County border. This ECA may serve as a movement corridor for the state provisionally protected Southern California/Central Coast Evolutionarily Significant Unit of mountain lion. CDFW characterizes the value of ECAs based on permeability to wildlife movements. As mapped by CEHCP, the edges of the nearest connectivity area become increasingly less suitable as they extend toward American Canyon.

4.4.2 Regulatory Setting

a. Federal Regulations

Federal Endangered Species Act

The Federal Endangered Species Act of 1973 (FESA) and subsequent amendments provide for the conservation of endangered and threatened species, and the ecosystems upon which they depend. FESA is intended to prevent the unlawful “take” of listed fish, wildlife, and plant species. Section 9(a)(1)(B) specifically states take of species listed as threatened or endangered is unlawful. Take is defined as any action that would harass, harm, pursue, hunt, wound, shoot, kill, trap, capture, or collect any threatened or endangered species. Section 10 of the FESA allows the USFWS to issue incidental take permits if take of a listed species may occur during otherwise lawful activities. Section 10(a)(1)(B) requires a Habitat Conservation Plan for an incidental take permit on non-federal lands. Section 7 of the FESA requires federal agencies to aid in the conservation of listed species,

and to ensure that the activities of federal agencies will not jeopardize the continued existence of listed species or adversely modify designated critical habitat. The USFWS and the National Oceanic and Atmospheric Administration (NOAA) are responsible for administration of the FESA and have regulatory authority over federally listed species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) makes it unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, or kill migratory birds, and prohibits the removal of nests occupied by migratory birds. The USFWS has regulatory authority for the MBTA.

Clean Water Act

The United States Army Corps of Engineers (USACE), under provisions of Section 404 of the Clean Water Act (CWA) and USACE implementing regulations, has jurisdiction over the placement of dredged or fill material into "waters of the United States." Congress enacted the CWA "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." In practice, the boundaries of certain waters subject to USACE jurisdiction under Section 404 have not been fully defined. Previous regulations codified in 1986 defined "waters of the United States" as traditional navigable waters, interstate waters, all other waters that could affect interstate or foreign commerce, impoundments of waters of the United States, tributaries, the territorial seas, and adjacent wetlands.

USACE jurisdictional limits are typically identified by the Ordinary High Water Mark (OHWM) or the landward edge of adjacent wetlands (where present). The OHWM is the "line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area" (33 Code of Federal Regulations 328.3).

The USACE defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3). The USACE's delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology.

Fish and Wildlife Coordination Act

The USFWS also has responsibility for project review under the Fish and Wildlife Coordination Act. This statute requires that all federal agencies consult with USFWS, NOAA Fisheries, and the State's wildlife agency (CDFW) for activities that affect, control, or modify streams and other water bodies. Under the authority of the Fish and Wildlife Coordination Act, USFWS, NOAA Fisheries, and the CDFW review applications for permits issued under Section 404 and provide comments to the USACE about potential environmental impacts.

b. State Regulations

California Endangered Species Act

The CDFW is responsible for administration of CESA. For projects that may affect both a State and federal listed species, compliance with the FESA will satisfy the CESA, provided the CDFW determines that the federal incidental take authorization is consistent with the CESA.

Take is defined in CFGC Section 86 as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The CESA allows for take incidental to otherwise lawful activities under CFGC Section 2081. Project proponents wishing to obtain incidental take permits can do so through a permitting process outlined in California Code of Regulations (CCR) Section 783. Additionally, some sensitive mammals and birds are protected by the state as Fully Protected Mammals or Fully Protected Birds, as described in the CFGC, Sections 4700 and 3511, respectively.

Projects that may result in a take of a California listed species require a take permit under the CESA. The federal and State acts lend protection to species considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or den locations, communal roosts, and other essential habitat. Unlike the FESA, the CESA prohibits the take of not just listed endangered or threatened species, but also candidate species (species petitioned for listing).

The CESA defines an endangered species as:

> …a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

A threatened species is defined as:

> …a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species.

Candidate species are defined as:

> …a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.

Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened or endangered species by stating:

> …no person shall import into this State, export out of this State, or take, possess, purchase, or sell within this State, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided.

California Fish and Game Code - Nesting Bird Protection

According to CFGC Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird [except English sparrows (*Passer domesticus*) and European starlings (*Sturnus vulgaris*)]. Sections 3503 and 3513 prohibit the taking of specific birds, their nests, eggs, or any portion thereof during the nesting season. Section 3503.5 specifically protects birds in the orders Falconiformes and Strigiformes (birds-of-prey). Section 3513 essentially overlaps with the federal MBTA, prohibiting the take or possession of any migratory nongame bird.

California Native Plant Protection Act

The California Native Plant Protection Act (NPPA) was enacted in 1977 and allows the California Fish and Wildlife Commission to designate plants as rare or endangered. Currently, 64 species, subspecies, and varieties of plants are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites; changes in land use; and in certain other situations. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA permitting procedures (CFG Code Section 2081) would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference between regulations and protocols for plants listed under CESA and those listed under the NPPA.

Clean Water Act Section 401, Porter-Cologne Water Quality Control Act

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over “waters of the State,” which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering Section 401 of the CWA. In addition, where Federal jurisdiction is not asserted (for example, due to a lack of connectivity to a Relatively Permanent Waters [RPW] and Traditional Navigable Waters [TNW]), RWQCB assert jurisdiction over “waters of the State” pursuant to Section 13263 of the Porter-Cologne Water Quality Control Act, which are defined as any surface water or groundwater, including saline waters, within the boundaries of the State. In this event, the SWRCB may issue general Waste Discharge Requirements (WDRs) regarding discharges to “isolated” waters of the State if limiting criteria are not exceeded (Water Quality Order No. 2004-0004-DWQ, Statewide General Waste Discharge Requirements for Dredged or Fill Discharges to Waters Deemed by the USACE to be Outside of Federal Jurisdiction) or project-specific WDRs.

The SWRCB and RWQCBs have not established regulations for field determinations of waters of the state except for wetlands. In many cases the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance, each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may

include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

> the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

California Fish and Game Code Section 1600 et seq.

Pursuant to CFGC Section 1600, CDFW has authority over all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state, and requires any person, state or local governmental agency, or public utility to notify the CDFW before beginning any activity that would "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" that supports fish or wildlife resources.

A stream is defined as a "body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation" (California Code of Regulations, Title 14 Section 1.72). A Lake or Streambed Alteration Agreement may be required for any project that would result in an adverse impact to a river, stream, or lake. CDFW jurisdiction typically extends to the top of the bank and out to the outer edge of adjacent riparian vegetation if present. However, CDFW can take jurisdiction over a body of flowing water and the landform that conveys it, including water sources and adjoining landscape elements that are byproducts of and affected by interactions with flowing water without regard to size, duration, or the timing of flow.

CDFW Special Animals List

Special-status wildlife species are those species included on the CDFW "Special Animals" list (CDFW 2020). "Special Animal" is a general term that refers to all the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. The CDFW considers the taxa on this list to be those of greatest conservation need. The species on this list generally fall into one or more of the following categories:

- Officially listed or proposed for listing under the CESA and/or FESA
- State or Federal candidate for possible listing
- Taxa that meet the criteria for listing, even if not currently included on any list, as described in CEQA Guidelines Section 15380

- Taxa considered by the Department to be a Species of Special Concern
- Taxa that are biologically rare, very restricted in distribution, declining throughout their range, or have a critical vulnerable stage in their life cycle that warrants monitoring
- Populations in California that may be on the periphery of a taxon's range but are threatened with extirpation in California

c. Local Regulations

American Canyon General Plan

The Land Use Element and Natural and Historic/Cultural Resources Element of the American Canyon General Plan set the guidelines to protect and preserve significant flora and fauna along with significant habitats that exist within the City of American Canyon and its planning area. The objectives within the natural and historic/cultural resources element facilitate protection of sensitive habitats including vernal pool, natural drainages, and riparian habitats among other habitats. The following policies contained within the General Plan provide for resource conservation and the appropriate management of development.

Goal 8: Protect and preserve the significant habitats, plants and wildlife that exist in the City and its Planning Area.

Objective 8.1: Maintain data and information regarding areas of significant biological value within the Planning Area to facilitate resource conservation and the appropriate management of development.

> **Policy 8.1.1**: Acquire and maintain the most current information available regarding the status and location of sensitive biological elements (species and natural communities) within the City and, as appropriate, within the Sphere of Influence and Urban Limit Line.
>
> **Policy 8.1.4:** Regularly monitor and review developments proposed within the City's Planning Area to assess their impacts on local biological resources and to recommend appropriate mitigation measures that the developer and/or government agency can implement.

Objective 8.2: Balance the preservation of natural habitat areas, including coastal saltmarsh, mixed hardwood forest, oak savanna, and wetland and riparian habitats, with new development in the City.

> **Policy 8.2.1**: Land use applications for developments located within sensitive habitats, including coastal saltmarsh, mixed hardwood forest, oak savanna, and riparian habitats (see Figure 8-1) [General Plan], or with areas potentially occupied by vernal pools (see Figure 8-2) [General Plan] shall be accompanied by sufficient technical background data to enable an adequate assessment of the potential for impacts on these resources, and possible measures to reduce any identifiable impacts. In addition to examining Figure 8-1 [General Plan] for information on these sensitive habitats, an on-site assessment shall be conducted by a City approved qualified Biologist to determine whether sensitive habitats exist on-site, in instances where the potential for significant impacts exists, the applicant must submit a Biological Assessment Report prepared by a qualified professional.

Objective 8.3: Protect natural drainages and riparian corridors within the American Canyon Planning Area.

Policy 8.3.1: Review proposed developments in wetlands and riparian habitats to evaluate their conformance with the following policies and standards:

a. The development plan shall fully consider the nature of existing biological resources and all reasonable measures shall be taken to avoid significant impacts, including retention of sufficient natural open space and undeveloped buffer zones.
b. Development shall be designed and sited to preserve watercourses, riparian habitat, vernal pools, and wetlands in their natural condition, unless these actions result in an unfeasible project, in which case habitat shall be replaced in accord with subsection "g" (below).
c. Where riparian corridors are retained, they shall be protected by an adequate buffer with a minimum 100-foot protection zone from the edge of the tree, shrub, or herb canopy (see Policy 8.3.2).
d. Development shall incorporate habitat linkages (wildlife corridors) to adjacent open spaces, where appropriate and feasible.
e. Development shall incorporate fences, walls, vegetative cover, or other measures to adequately buffer habitat areas, linkages, or corridors from built environment.
f. Roads and utilities shall be located and designed such that conflicts with biological resources, habitat areas, linkages or corridors are avoided where feasible.
g. Future development shall utilize appropriate open space or conservation easements in order to protect sensitive species or their habitats.
h. Future development shall mitigate unavoidable adverse impacts to waters of the United States, wetlands, and riparian habitats (pursuant to the federal Clean Water Act and the California Fish and Game Code, Section 1600 et seq.) by replacement on an in-kind basis. Furthermore, replacement shall be based on a ratio determined by the California Department of Fish and Wildlife and/or United States Army Corps of Engineers in order to account for the potentially diminished habitat values of replacement habitat. Such replacement should occur on the original development site, whenever possible. Alternatively, replacement can be affected, subject to State and federal regulatory approval, by creation or restoration of replacement habitats elsewhere (off-site but preferably within the City's Planning Area), protected in perpetuity by provision for an appropriate conservation easement or dedication.

Policy 8.3.5: Establish a network of open spaces along the City's natural drainages and riparian corridors and link significant biological habitats. Any recreational use of these areas shall be designed to avoid damaging sensitive habitat areas.

Policy 8.3.6: Preserve and integrate the City's natural drainages in new development, as opposed to their channelization or undergrounding, emphasizing opportunities for the development of pedestrian paths and greenbelts along their lengths throughout the City.

Objective 8.4: Protect local vernal pools as well as the habitats of endangered species living within American Canyon's Planning Area.

Policy 8.4.1: Require that development plans incorporate all reasonable mitigation measures to avoid significantly impacting vernal pools for projects located within American Canyon's Planning Area.

Policy 8.4.2: Preserve, where possible, the habitat of several in-fact endangered species, including those shown on Figure 8-2 and listed in Table 8-1, as well as those that may be considered by the City in the future.

Policy 8.4.3: Encourage activities that improve the biological value and integrity of the City's natural resources through vegetation restoration, control of alien plants and animals, and landscape buffering.

4.4.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on biological resources if it would:

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 or U.S. Fish and Wildlife Service;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
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 (i.e., direct/indirect reduction) 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; or
6. Conflict with the provisions of an adopted Habitat Preservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

Methodology

The impact analysis is based on a review of available literature and of existing biological conditions within the proposed annexation area. Impacts to biological resources were assessed using the significance thresholds described above. Impacts to flora and fauna may be determined to be significant even if they do not directly affect rare, threatened, or endangered species because development by the project may result in indirect impacts to species. Potential impacts to special status species due to future specific development within the project site will be determined during each projects' development. Impacts to sensitive biological resources are analyzed accordingly here and are not considered as permanent or temporary impacts to the entire annexation area. Potential for the project to result in significant impacts to special status biological resources is addressed below.

Threshold 1:	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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Impact BIO-1 **THE PROJECT MAY RESULT IN DIRECT OR INDIRECT IMPACTS TO SPECIAL-STATUS SPECIES, THEIR ASSOCIATED HABITATS, AND NESTING BIRDS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.**

A total of 54 special-status wildlife and 73 special-status plant species are known to occur within the 12 quad search area. Of these species, three special-status wildlife species have a moderate or greater potential to occur within the project site. This includes western burrowing owl, Swainson's hawk, and white-tailed kite. In addition, nesting migratory birds may occur within the project site. Migratory birds nest within a variety of habitats such as gravel, grasses, bushes, or trees. Construction of future development and the extension of Newell Drive could result in direct impacts to migratory birds, Swainson's hawk, and white-tailed kite. Impacts to these species may include injury, mortality, or nest abandonment due to construction activities, noise, and/or dust. Impacts to active nests would be considered significant.

Suitable western burrowing owl habitat is present in annual grassland, and ruderal habitats throughout the project site. Suitable burrows were observed during the reconnaissance survey; therefore, the species is determined to have a moderate potential to occur within the proposed annexation. Impacts to western burrowing owls would be limited to project activity that would directly affect an occupied burrow (temporarily or permanently damage or destroy the burrow), or project activity that would disrupt active breeding or wintering owls within 500 feet of construction activity. Owls can be disturbed by construction noise and human activity and may abandon active burrows, including during breeding. Impacts to active western burrowing owl burrows would be considered significant. Implementation of the mitigation measures below would avoid and minimize potential impacts to western burrowing owl, Swainson's hawk, white-tailed kite, and other nesting birds during construction.

Impacts from the operation of the Newell Drive Extension, including vehicle collisions to individuals of the aforementioned species are unlikely to be substantial. These impacts would be less than significant.

Mitigation Measure

BIO-1 Site-Specific Biological Resources Assessment

The City shall implement the following measures during environmental review of future development within the project site. On a project-by-project basis, a preliminary biological resource screening shall be performed to determine whether a specific project has the potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) or similar type of study to document the existing biological resources within the project footprint plus an appropriate buffer determined by a qualified biologist and to determine the potential impacts to those resources. The BRA shall evaluate the potential for impacts to all sensitive biological resources including, but not limited to special-status species, nesting birds, wildlife movement, sensitive plant communities/critical habitat and other resources judged to be

sensitive by local, state, and/or federal agencies. Pending the results of the BRA, design alterations, further technical studies (i.e., protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be necessary. The City shall review and approve the BRA prior to project approval.

BIO-2 Pre-construction Surveys for Swainson's Hawk, Other Raptors and Nesting Birds

Ground disturbance and vegetation removal activities shall be restricted to the non-breeding season (September 16 to January 31), when feasible. If construction activities occur during the nesting bird season (February 1 to September 15), the following mitigation measures are recommended to reduce impacts to Swainson's hawk, protected raptor species, and other nesting birds protected by the MBTA and CFGC.

A qualified biologist shall conduct surveys for Swainson's hawk between January 1 and March 20. A preconstruction survey for other raptors and nesting birds shall be conducted no more than seven days prior to initiation of ground disturbance and vegetation removal. The survey shall be conducted within the project site and include a 150-foot buffer for passerines, 500-foot buffer for other raptors, and 0.5 mile buffer for active Swainson's hawk nests. The surveys shall be conducted by a biologist familiar with the identification of avian species known to occur in the region. It is recommended that surveys follow the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. If a Swainson's hawk or white-tailed kite nest is found, the biologist shall set up appropriate buffers in consultation with CDFW.

If the nesting bird survey results are negative, no further action is required. If nests are found, the biologist shall determine and demarcate an appropriate avoidance buffer with high visibility material. For Swainson's hawk nests, the biologist shall establish an avoidance buffer of up to 0.5 mile based on the nest location in relation to the construction activity, the line-of-sight from the nest to the construction activity, and observed hawk behavior at the nest.

The qualified biologist shall notify all construction personnel of the buffer zones and to avoid entering buffer zones during the nesting season. No ground disturbing activities shall occur within the buffer until the biologist has confirmed that breeding/nesting is complete, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the biologist.

Results of the preconstruction nesting bird survey shall be submitted to the City in a brief letter report no more than 30 days after completion of the survey.

BIO-3 Pre-construction Surveys for Western Burrowing Owl

Prior to ground disturbance activities, a qualified biologist shall conduct pre-construction clearance surveys within suitable natural habitats and ruderal areas throughout the project site, to confirm the presence/absence of active western burrowing owl burrows. The surveys shall be consistent with the recommended survey methodology provided by CDFW's Staff Report on Burrowing Owl Mitigation. Clearance surveys shall be conducted within 30 days prior to construction and ground disturbance activities. If no western burrowing owls are observed, no further actions are required. If western burrowing owls are detected during the pre-construction clearance surveys, the following measures shall apply:

- Avoidance buffers during the breeding and non-breeding season shall be implemented in accordance with the CDFW's Staff Report on Burrowing Owl Mitigation minimization mitigation measures.
- If avoidance of western burrowing owls is not feasible, then additional measures such as passive relocation during the nonbreeding season and construction buffers of 200 feet during the breeding season shall be implemented, in consultation with CDFW. In addition, a Western Burrowing Owl Exclusion Plan and Mitigation and Monitoring Plan shall be developed by a qualified biologist in accordance with the CDFW (2012) and Burrowing Owl Consortium (1993).

Project applicants shall submit evidence of clearance surveys, avoidance buffers or additional measures to the City as required.

BIO-4 Worker Environmental Awareness Program

Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend Worker Environmental Awareness Program training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the project site. The program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All employees shall sign a form documenting attendance at the Worker Environmental Awareness Program and that they understand the information presented to them. The form shall be submitted to the City to document compliance.

Significance After Mitigation

With implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4, impacts from the project on special status species, nesting birds, and associated habitats would be mitigated to a less than significant level.

Threshold 2:	Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Impact BIO-2 NO RIPARIAN HABITAT OR SENSITIVE NATURAL COMMUNITIES ARE PRESENT IN THE PROJECT SITE. NO IMPACT WOULD OCCUR.

The northern portion of the project site is bisected by North Slough, flowing north to south. The slough and the rest of the project site do not contain riparian habitat or other sensitive natural communities even though they are potentially jurisdictional and subject to USACE, RWQCB, and CDFW oversight (see Appendix B). Impacts on jurisdictional waters are addressed in Impact BIO-3. Because there is no riparian habitat or other sensitive natural communities on the project site, development within the project site would not have a substantial adverse impact on any riparian habitat or other sensitive natural community, including protected wetlands; therefore, there would be no impact.

Mitigation Measure

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 3:	Would the project 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?

Impact BIO-3 IMPLEMENTATION OF THE PROJECT MAY RESULT IN IMPACTS TO STATE OR FEDERALLY PROTECTED WATERS. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The northern portion of the project site includes the North Slough, which is characterized as unvegetated waters and are potentially state and federally jurisdictional (Appendix B). In addition, the area east of the project site includes areas that drain to North Slough and may be potentially jurisdictional. The potential jurisdictional features have been historically diverted from their natural topographic drainages (i.e., the typical gradient being downhill and flowing north to south or east to west) and redirected through a system of culverts and ditches onto and through the project site, flowing into North Slough.

There are several components of the project that cross these potentially jurisdictional areas, including the following:

- A portion of the Newell Drive Extension and areas with new pre-zoning (Residential Estate, Paoli Light Industrial, Paoli Light Industrial: Commercial Overlay) would cross the North Slough.
- An area pre-zoned as Paoli Light Industrial would cross an area that drains to North Slough.
- A portion of the Newell Drive Extension along the northern portion of the annexation area would cross an area that drains to North Slough.

No development is being proposed in the areas pre-zoned as Residential Estate. As such, there would be no impact to the portion of North Slough in the Residential Estate pre-zoning. Future development could occur in the proposed Paoli Light Industrial and Paoli Light Industrial: Commercial Overlay pre-zoning. Construction of future development, including upgrades to utilities and stormwater drainage, may require work within the North Slough and the area that drains to North Slough, including dredge or fill within potential jurisdictional waters. The southern potential jurisdictional feature has been substantially diverted from its natural topographic course (i.e., the typical gradient being downhill and flowing north to south or east to west) and redirected through a system of culverts and ditches, and ultimately through the project site toward North Slough. Because the project could impact these potentially jurisdictional features, impacts would be potentially significant.

In addition, the City has identified that the Newell Drive Extension would align with the northern boundary of the project site. The Newell Drive Extension would cross the North Slough with a clear span overcrossing. There would be no impact to the North Slough due to the Newell Drive Extension. A section of the northern potential jurisdictional feature would be directly impacted due to the road alignment. The northern potential jurisdictional feature also contains concentrated runoff that is diverted through the project site. Because the northern potential jurisdictional feature is a potentially jurisdictional water, impacts would be potentially significant.

For development that would occur in these areas, permitting pursuant to Section 404/401 of the CWA Section, and Section 1600 *et seq.* of the CFGC would be required. Actual jurisdictional areas are determined by the State and federal authorities at the time that permits are requested, and the agencies are responsible for describing avoidance, minimization, and mitigation measures, if required. Mitigation Measure BIO-5 would require that future applicants prepare an aquatic resources delineation and preliminary jurisdictional determination report, either to ensure avoidance of potentially jurisdictional waters or for submittal to the agencies for verification of their jurisdictions. Mitigation Measure BIO-6 would require setbacks around the North Slough to avoid impacts to that feature. Nonetheless, even with these measures, there is still the potential that the project could result in the permanent loss of a jurisdictional feature. As such, Mitigation Measure BIO-7 would require mitigation to compensate for the loss of jurisdictional water features.

Mitigation Measures

BIO-5 Aquatic Resources Delineation

A qualified biologist shall complete an aquatic resources delineation survey that establishes the extent of the waters of the U.S. and State and identify the potential jurisdictional limits of USACE, RWQCB, and CDFW. The delineation shall be conducted in accordance with the requirement set forth by each agency and the results presented in a report that shall be submitted to the City, USACE, RWQCB, and CDFW, as appropriate, for review and approval. If the USACE asserts its authority, then a permit pursuant to Section 404 of the CWA would be required. If jurisdictional areas are expected to be impacted, then the RWQCB would require a Section 401 Water Quality Certification and/or Waste Discharge Requirement permit (depending upon whether the feature falls under federal jurisdiction or not). If CDFW asserts its jurisdictional authority, then a Lake or Streambed Alteration Agreement pursuant to Section 1600 et seq. of the CFGC would also be required prior to construction within the areas of CDFW jurisdiction.

BIO-6 General Avoidance and Minimization

Development shall be designed to avoid potentially jurisdictional features identified in aquatic resources delineation reports (Mitigation Measure BIO-4), to the extent feasible. No development shall occur within 50 feet of the top of bank for North Slough. Projects with potentially jurisdictional features shall provide the City with a report detailing how all identified aquatic features will be avoided, including groundwater draw down, prior to project approval.

BIO-7 Restoration for Impacts to Waters and Wetlands

If the project cannot be designed to avoid impacts to waters and wetlands (as described in Mitigation Measure BIO-6), then impacts shall be fully mitigated at an appropriate ratio, as determined by a qualified biologist and in accordance with regulatory agency requirements. Mitigation can be achieved through the setting aside or acquisition and in-perpetuity management of similar habitat on-site (this can include restoration of jurisdictional features within the project site) or as close to the impact habitat as possible. Mitigation lands must be placed into a conservation easement or other covenant restricting future development. A mitigation and monitoring plan consistent with regulatory agency requirements shall be developed by a qualified biologist and submittal to the regulatory agency overseeing the project for approval. Alternatively, mitigation shall be accomplished through purchase of credits from an approved mitigation bank. Mitigation lands or in lieu funding sufficient to acquire lands should provide habitat at a minimum

1:1 ratio for impacted lands, comparable to habitat to be impacted by individual project activity. The City shall review and approve the plan before submittal to the agencies.

Significance After Mitigation

With implementation of Mitigation Measures BIO-5, BIO-6, and BIO-7, impacts to state or federally protected waters and wetlands from development facilitated by the project would be minimized. This impact would be less than significant after mitigation.

Threshold 4:	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?

Impact BIO-4 IMPLEMENTATION OF THE PROJECT WOULD NOT SUBSTANTIALLY IMPEDE THE MOVEMENT OF NATIVE RESIDENT OR MIGRATORY FISH OR WILDLIFE SPECIES OR WITH ESTABLISHED NATIVE RESIDENT OR MIGRATORY WILDLIFE CORRIDORS AFTER THE IMPLEMENTATION OF MITIGATION MEASURE BIO-6. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The project site is not within a designated ECA and does not function as a significant regional or local wildlife movement corridor. North Slough, which bisects the northern portion of the project site may provide a natural movement corridor for wildlife through the project site. As such impacts on the North Slough would result in potentially significant impacts on wildlife movement. Nonetheless, impacts on North Slough would be avoided by implementing Mitigation Measure BIO-6. The Newell Drive Extension over North Slough is unlikely to impact the movement of wildlife through North Slough because it would be an overcrossing. Wildlife movement is likely to be concentrated along North Slough; therefore, the project would be unlikely to impact the movement of wildlife across the landscape as the overcrossing would provide wildlife with an unobstructed natural movement corridor.

Filling of the areas that drain to North Slough would be unlikely to impact the movement of wildlife beyond the project area. This is because the existing Union Pacific Railroad tracks bisect the area that drains to North Slough. This area, therefore, does not serve as a significant movement corridor for wildlife. As such, the impacts on wildlife movement from filling the area that drains to North Slough would be less than significant.

Mitigation Measures

Mitigation Measure BIO-6 (see Impact BIO-3).

Significance After Mitigation

With implementation of Mitigation Measure BIO-6, impacts to wildlife movement would be minimized through the protection of North Slough, which can be used by wildlife for movement. This impact would be less than significant after mitigation.

Threshold 5:	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact BIO-5 IMPLEMENTATION OF THE PROJECT COULD CONFLICT WITH LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES, SUCH AS A TREE PRESERVATION POLICY OR ORDINANCE. HOWEVER, THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The project, when annexed would fall under the jurisdiction of the City of American Canyon, which provides protection for biological resources through the implementation of its General Plan and Zoning Code. The American Canyon General Plan includes policies to guide decisions on future growth, development, and conservation of resources. This includes the Natural and Historic/Cultural Resources Element, which aim to preserve the natural and scenic resources (American Canyon 1994).

The Natural and Historic/Cultural Resources Element includes an objective to protect natural drainages (Objective 8.3) and a policy to review proposed developments in wetlands, require preservation of watercourses as feasible, and require mitigation for impacts on waters (Policy 8.3.1). As described in Impact BIO-3, there would be a potentially significant impact on waters (i.e., potentially jurisdictional features); however, these impacts would be mitigated to a less than significant level through the implementation of Mitigation Measures BIO-5, BIO-6, and BIO-7. The project could potentially result in a conflict with a policy protecting biological resources; however, implementation of Mitigation Measures BIO-5, BIO-6, and BIO-7 would ensure that the project is consistent with the policy and impacts would be less than significant with mitigation.

Mitigation Measures

Mitigation Measures BIO-5, BIO-6, and BIO-7 (see Impact BIO-3).

Significance After Mitigation

Impacts would be less than significant with mitigation.

Threshold 6:	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?

Impact BIO-6 IMPLEMENTATION OF THE PROJECT WOULD NOT CONFLICT WITH THE PROVISIONS OF AN ADOPTED HABITAT CONSERVATION PLAN, NATURAL COMMUNITY CONSERVATION PLAN, OR OTHER APPROVED LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLAN. NO IMPACT WOULD OCCUR.

There are no habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans in the project site. Therefore, future development on the project site and the extension of Newell Drive would not conflict with such plans. No impact would occur.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

4.4.4 Cumulative Impacts

The geographic scope for cumulative biological resources impacts includes the City and adjacent projects in Napa County. This geographic scope is appropriate for biological resources because it encompasses a variety of land cover and habitat types (and associated biological resources) affected by the project, including primarily urban development with areas of natural habitats.

Because the project would have no impact related to riparian habitat or other sensitive natural community and because the project would have no impact from conflicts with a habitat conservation plans, natural community conservation plans, or other approved local, regional, or state habitat conservation plans, the project would not contribute to a cumulative impact. As such, there would be no cumulative impact to these resources, and they are not discussed further.

Cumulative development may also affect western burrowing owl, Swainson's hawk, white-tailed kite, and nesting birds during construction. However, because the project would implement mitigation measures (BIO-1 through BIO-4), which would minimize impacts to these species during construction, the project's contribution to a cumulative impact would be less than considerable. In addition, cumulative development could also result in the loss of foraging and breeding habitat for these species. Although the project could permanently remove nonnative grasslands that are used by western burrowing owl, Swainson's hawk, white-tailed kite, and nesting birds, nearby habitat would remain in the area that could be used by the species, including at the Newell Open Space Preserve. In fact, as a part of the Watson Ranch Project, the City would include conservation easement areas to provide habitat for special-status species (City of American Canyon 2018). As such, cumulative impacts on special-status species would be less than significant.

As described in Impacts BIO-3 and BIO-5, the project could result in impacts to aquatic resources, as well as a conflict with a policy protecting aquatic resources; however, project impacts would be less than significant through the application of mitigation (Mitigation Measures BIO-5, BIO-6, and BIO-7). A cumulative impact could occur if cumulative projects also result in impacts to aquatic resources. Other cumulative projects would be required to comply with existing regulations, as summarized in Section 4.4.2, *Regulatory Setting,* which include requirements to protect aquatic resources. Cumulative projects in the City of American Canyon would be required to comply with Policy 8.3.1 in the General Plan, which includes requirements to review projects in wetlands and riparian habitats, protection of aquatic resources, and if needed compensatory mitigation. Because cumulative projects would be required to adhere to existing regulations that protect aquatic resources, cumulative impacts on aquatic resources and conflicts with policies would be less than significant.

As described in Impact BIO-4, wildlife movement in the project site would be concentrated along the North Slough and implementation of Mitigation Measure BIO-6 would ensure that wildlife movement would be maintained. Other cumulative projects could result in an impact on wildlife movement if they resulted in impacts to natural areas where wildlife movement occurs. However, because the project would maintain wildlife movement in the project site, the project's contribution to a cumulative impact would be less than considerable.

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4.5 Cultural Resources

This section analyzes the potential effects on cultural resources related to implementation of the project.

4.5.1 Setting

a. Cultural Setting

The cultural setting for the project site is presented broadly in three overviews: Prehistoric, Ethnographic, and Historic. The prehistoric and historic overviews describe human occupation before and after European contact. The ethnographic overview in the Section 4.16, *Tribal Cultural Resources* provides a synchronic "snapshot" of traditional Native American culture.

Prehistory

The project site lies in the San Francisco Bay Area archaeological region (Milliken et al. 2007, Moratto 1984). Milliken et al. (2007) generally divided the prehistoric chronology of the Bay Area into five periods: The Early Holocene (8,000-3,500 before common era [BCE]), Early Period (3,500-500 BCE), Lower Middle Period (500 BCE to CE 430 common era [CE]), the Upper Middle Period (430-1050 CE), and the Late Period (1050 CE-contact).

It is presumed that early Paleoindian groups lived in the area prior to 8,000 BCE; however, no evidence for this period has been discovered in the San Francisco Bay Area (Milliken et al. 2007). Sites dating to this period may be submerged or deeply buried as a result of rising sea levels and widespread sediment deposition that has occurred since the Terminal Pleistocene (Byrd et al. 2017). For this reason, the Terminal Pleistocene Period (ca. 11,700-8,000 BCE) is not discussed here.

The earliest intensive study of the archaeology of the San Francisco Bay Area began with N.C. Nelson of the University of California, Berkeley, between 1906 and 1908. He documented over 400 shell mounds throughout the area. Nelson was the first to identify the Bay Area as a discrete archaeological region (Moratto 1984).

Early Holocene (8,000-3,500 BCE)

Archaeological evidence from the early Holocene is limited as sites dating to this period are likely buried under Holocene alluvial deposits (Moratto 1984; Ragir 1972). The available data suggests that the Early Holocene in the San Francisco Bay Area is characterized by a mobile forager pattern and the presence of millingslabs, handstones, and a variety of leaf-shaped projectile points. Two archaeological sites (CA-CCO-696 and CA-CCO-637) dating to this period have been identified in Contra Costa County at the Los Vaqueros Reservoir. The earliest date for the Early Holocene comes from the CA-CCO-696, dating to approximately 7000 BCE (Milliken et al. 2007).

Early Period (3,500-600 BCE)

The Early Period saw increased sedentism with the introduction of new ground stone technologies (i.e., mortar and pestle), an increase in regional trade, and the first cut shell beads. The earliest evidence for the use of the mortar and pestle in the San Francisco Bay Area dates to 3800 BCE and comes from archaeological site CA-CCO-637. By 1500 BCE, mortars and pestles had almost completely replaced millingslabs and handstones, indicating a greater reliance on processing nuts,

especially acorns. Faunal evidence from various sites during this person indicate a diverse faunal exploitation pattern based on the presence mussel and other shellfish, marine mammals, terrestrial mammals, and birds within sites dating to this period (D'Oro 2009).

The earliest cut bead horizon is also associated with this period. Rectangular Haliotis spp. (abalone) and Callianax biplicate (formerly *Olivella biplicata*) (Vellanoweth et al. 2014) (snail) beads have been identified at several Early Period sites, including CA-CCO-637, CA-SCL-832 in Sunnyvale, and CA-ALA-307 in Berkeley (Milliken et al. 2007). These early examples of cut beads were recovered from mortuary contexts.

Lower Middle Period (500 BCE-CE 430)

The Lower Middle Period saw numerous changes from the previous period. The presence of chipped stone points and bone tools became typical. Rectangular shell beads (common during the Early Period) disappear completely and are replaced by split-beveled and saucer Olivella beads. Haliotis spp. ornaments, bone tools and ornaments, and basketry awls also became typical, indicating the development of coiled basketry technology. Mortars and pestles continued to be the dominant grinding tool (Luby and Gruber 1999; Milliken et al. 2007).

Evidence for the Lower Middle Period in the Bay Area comes from sites such as the Emeryville shell mound (CA-ALA-309) and Ellis Landing (CA-CCO-295). The Emeryville shell mound (CA-ALA-309) is one of the largest shell mounds in the San Francisco Bay Area and contains multiple cultural sequences. The lower levels of the site, which date to the Middle Period, contain flexed burials with bone implements, chert bifaces, charmstones, and oyster shells (Moratto 1984).

Upper Middle Period (CE 430-1050)

Around CE 430, Olivella saucer bead trade networks that had been established during earlier periods collapsed and over half of known sites occupied during the Lower Middle Period were abandoned. Olivella saucer beads were replaced with Olivella saddle beads. New types of material culture appear within these sites, including elaborate, decorative blades, fishtail charmstones, new Haliotis spp. ornament forms, and mica ornaments. Sea otter bones became more abundant, while salmon and other fish became less so, suggesting changes in faunal exploitation patterns from earlier periods (Milliken et al. 2007; Simons and Carpenter 2009). Excavations at archaeological site CA-ALA-309 indicate that a shift from mussels to oysters, and oysters to clams may have occurred (Gifford 1916). Isotopic analysis confirms that San Francisco Bay Area individuals shifted from hunting higher-trophic-level foods in the Early Period to gathering foods like plants and shellfish in the Middle and Upper Periods (Burns et. al 2012). Subsistence analyses at various sites dating to this period indicate a diverse diet that included numerous species of fish, mammals, birds, shellfish, and plant resources that varied by location in the San Francisco Bay Area (Hylkema 2002).

Late Period (CE 1050-contact)

The Late Period saw an increase in social complexity, indicated by differences in burials and an increased level of sedentism relative to preceding periods, evidenced by mortars weighing up to 90.7 kilograms (Lentz 2012). An increase in imported Napa Valley obsidian occurred during this time for the production of smaller points, preforms and simple flake tools. Small, finely worked projectile points of the Stockton Serrated series associated with bow and arrow technology appear around CE 1250. Olivella shell beads disappeared and were replaced with Olivella lipped and spire -lopped beads in the South Bay and clamshell disk beads in the North Bay. Thicker and larger beads indicated higher affluence. The toggle harpoon, hopper mortar, and magnesite tube beads also

appeared during this period (Milliken et al. 2007; Lentz 2012; Von Der Porten et al. 2014), as did an increase in the intensity of resource exploitation that correlates with an increase in population (Moratto 1984). Many of the well-known sites of earlier periods, such as the Emeryville shell mound (CA-ALA-309) and the West Berkeley site (CA-ALA-307) were abandoned, as indicated by the lack of Late Period elements. Researchers have suggested that the abandonment of these sites may have resulted from fluctuating climates and drought that occurred throughout the Late Period (Lightfoot and Luby 2002).

b. Historic Context

The Post-European contact history of California is generally divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848–present). Each of these periods is briefly described below.

Spanish Period (1769 – 1822)

For more than 200 years, Cabrillo and other Spanish, Portuguese, British, and Russian explorers sailed the Alta (upper) California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 2003). Explorers such as Francis Drake and Sebastian Cermeno explored the San Francisco Bay area in the late 1500s (Bean 1968). Gaspar de Portolá and the Franciscan Father Junípero Serra established the first Spanish settlement in Alta California at Mission San Diego de Alcalá in 1769, the first of 21 missions erected by the Spanish. Portolá continued north, reaching the San Francisco Bay later that year. Pedro Fages' expedition also explored the region in 1772 (Cook 1957). Mission San Francisco de Asis and the San Francisco presidio (military fort) were founded in 1776, and Mission San Rafael Arcangel was built in 1817, all within about 30 miles of the project site (Presidio Trust 2020; California Missions Foundation, N.D.).

Mexican Period (1822 – 1848)

The Mexican Period commenced when news of the success of the Mexican Revolution (1810-1821) against the Spanish crown reached California in 1822. This period saw the federalization of mission lands in California with the passage of the Secularization Act of 1833. This Act enabled Mexican governors in California to distribute former mission lands to individuals in the form of land grants. Successive Mexican governors made more than 700 land grants between 1822 and 1846, putting most of the state's lands into private ownership for the first time (Shumway 2007). The approximately 80,000-acre Rancho Suscol or Soscol was acquired by General Vallejo in 1843; which encompasses the project site (City of Sonoma, N.D.).

The Mexican period saw an increased importance of sea trade and an influx of American settlers, which motivated the United States to expand their territory into California. The United States supported a small group of insurgents from Sonoma during the Bear Flag Revolt. The Bear Flaggers captured Sonoma in June of 1846. The next month, Commodore John Drake Sloat landed in Monterey and proceeded to take Yerba Buena, Sutter's Fort, Bodega Bay, and Sonoma. Fighting between American and Mexican forces continued until Mexico surrendered in 1847 (Rolle 2003).

American Period (1848 – Present)

The American Period began with the signing of the Treaty of Guadalupe Hidalgo in 1848, in which the United States agreed to pay Mexico $15 million for the conquered territory, including California, Nevada, Utah, and parts of Colorado, Arizona, New Mexico, and Wyoming. Settlement of California continued to increase during the early American Period. Many ranchos were sold or otherwise

acquired by Americans, and most were subdivided into agricultural parcels or towns. California's population grew exponentially with the discovery of gold in 1848. San Francisco grew from a population of 812 to 25,000 in only a few years and became California's first city (Rolle 2003).

The City of Vallejo, located approximately 5 miles south of the project site, was founded on what was once General Vallejo's rancho land, and thus was named after him. After the state of California was admitted to the Union, he donated 156 acres of land and offered funding to establish a new state capital. The town of Vallejo briefly became the site of the state capitol in 1852, and it served as the capital again in 1853 for approximately one month. Vallejo's son-in-law, John B. Frisbie, is generally credited with the founding of the city and helping to establish its government (Vallejo Convention and Visitors Bureau 2019; Vallejo Chamber of Commerce 2020).

Although the town lost the government center, a naval shipyard was established there in 1854 which furthered development of the town. Mare Island Naval Shipyard, also located approximately 5-miles south of the project site, became the first United States Navy installation on the Pacific Coast, and Vallejo developed into an important shipping center with ferry transportation serving passengers, railroads, and the Pony Express (Vallejo Convention and Visitors Bureau 2019). The Mare Island Naval Shipyard had an immense impact on the population of Vallejo and surrounding areas. It was known in the 1920s for the development of submarines, and its peak production period for shipbuilding, repair, and maintenance occurred during World War II. Correspondingly, the population in the areas greatly expanded during the war years. Mare Island continued to be a primary station for the construction and development of the Navy's pacific fleet of submarines in the years that followed. At the time, the base encompassed 5,200 acres (Vallejo Chamber of Commerce 2020). The area flourished as well, in part due to the Navy's presence which attracted countless military and civilian personnel from various parts. In the 1920s many Filipinos settled in the area following the Spanish-American War and the Filipino Insurrection, making the area one of the most diverse areas in northern California.

With the end of the Cold War, Mare Island Naval Shipyard's budget was reduced and the shipyard was closed in 1996, dramatically affecting the surrounding areas. The municipality underwent a bankruptcy in 2008, and efforts afterwards focused on drawing new investment to the area (Felix 2013). Various industrial, educational, recreational and historical areas have been developed as part of evolving the property for new uses (Gase 2019). Today, the waterfront area has become a focus for redevelopment to generate economic growth (City of Vallejo 2018).

City of American Canyon

The area now comprising Napa County was subject to European exploration as early as 1823, when Francisco Castro, Father Jose Altamira, and Jose Sanchez led an expedition though the area to find a site for a new mission. However, despite this incursion, European-American settlement of what is now American Canyon did not begin until two years after California was admitted to the United States (FirstCarbon Solutions 2016). In 1852, American Simpson Thompson purchased lands from General Mariano Guadalupe Vallejo and General J.B. Frisbie to establish a ranch. Thompson earned fame as one of the area's earliest fruit growers, but also grew grains on his land. In 1869, a railroad servicing the Napa Valley was developed, with a stop at Napa Junction (the original name for American Canyon), from which another line went east into the interior of California (ACHC n.d.). The area maintained a predominantly agricultural character until around 1900, when Augustus Watson established a limestone quarry. By 1902, Watson sold the quarry to the Standard Portland Cement Company, which supplemented the quarry with a new cement plant. Central to the local economy, the plant employed 200 and produced more than 2,000 barrels of cement a day, on average. The

plant continued producing cement until the 1920s or 1930s, when the local supply of limestone was exhausted. By 1946, the Basalt Rock Company repurposed the facility for the production of aggregate (FirstCarbon Solutions 2016).

Residential development of the area began after World War II. American Canyon's first subdivision, McKnight Acres was completed in 1948 and the Rancho Del Mar subdivision was built in 1952. Throughout the 1950s and 1960s, the community established new institutions and municipal services, such as the American Canyon Fire Protection District and the American Canyon Water District, in addition to expansions of the sewer and parks systems. A multi-decade campaign resulted in the incorporation of American Canyon in 1992, confirming the community's separate identity from neighboring Vallejo and Napa (ACHC n.d.). The city has grown steadily since its incorporation, expanding from about 7,000 in 1990 to approximately 21,658 residents in 2022 (see Section 4.13, *Population and Housing*).

c. Historical and Archaeological Resources in the Project Site

Rincon Consultants, Inc. completed background research in August of 2022 in support of the project. The research consisted of a California Historical Resources Information System (CHRIS) records search at the Northwest Information Center (NWIC) of the project site and a surrounding 0.5-mile radius, as well as a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search and historical map and aerial photograph review.

The CHRIS search identified 14 previously recorded resources within 0.5 mile of the project site, none of which are located within the project site. Of these 14 previously recorded resources, one is a prehistoric site, one is a prehistoric isolate, three are historic-period archaeological resources, and nine are historic-period built environment resources. The SLF search request was sent out on August 5, 2022. On October 11, 2022, the results of the SLF search were received and the NAHC stated that the results were positive. The results letter also stated that the City should contact the Mishewal-Wappo Tribe of Alexander Valley along with 12 additional Tribes who may also have knowledge of cultural resources in the area. On November 4, 2022, the City mailed and emailed letters to all 13 Tribes provided by the NAHC. On November 18, 2022, a representative from the Yocha Dehe Wintun Nation responded to the City and requested a copy of the cultural resources study for the project, as well as project information. The City conducted a consultation meeting with the Yocha Dehe Wintun Nation on February 8, 2023. For a summary of the consultation meeting, refer to the discussion in Impact TCR-1 in Section 4.16, *Tribal Cultural Resources*.

Review of the historical maps and aerial photographs revealed that there were several buildings and structures (i.e., farmhouses, outbuildings, residences, railroad, roads, etc.) located within and immediately adjacent to the project site as early as 1948, most, if not all of which are still present today. Most of the additional building and structures present within the project site today were present by at least 1968 (NETR Online 2021).

To identify known historical resources within the annexation site, background research included a review of the NRHP, CRHR, and the California Office of Historic Preservation Built Environment Resource Directory (BERD). No known historical resources were identified within the annexation site. A review of parcel data for properties within the annexation site, however, found eight properties which have not been subject to previous historical resources evaluation, but which currently meet the 45-year threshold recommended for recordation by the California Office of Historic Preservation. Additionally, a portion of the Union Pacific Railroad is also within the annexation site. Pending further analysis there is a potential for these previously unevaluated

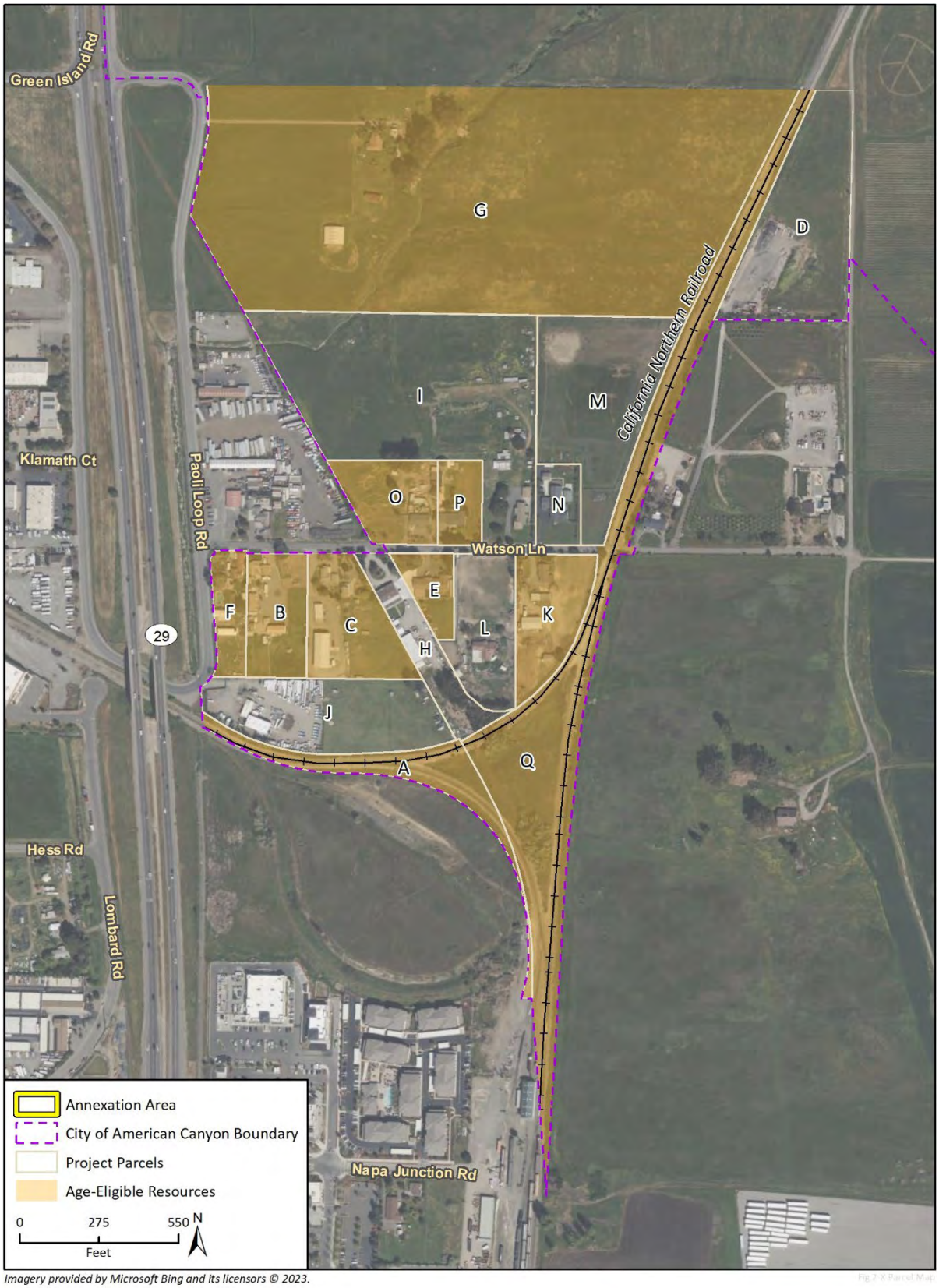
properties to qualify as historical resources pursuant to CEQA. Table 4.5-1 includes a full list of age-eligible properties, and those properties are mapped on Figure 4.5-1.

Table 4.5-1 Properties with Age-Eligible Buildings

Site ID	APN	Building Age	Age-Eligible?
A	059-020-036	NA	No
B	057-120-014	1956	Yes
C	057-120-015	1948	Yes
D	057-120-017	NA	No
E	057-120-028	1976	Yes
F	057-120-034	1946/1950	Yes
G	057-120-036	1966	Yes
H	057-120-041	2000	No
I	057-120-045	1989	No
J	057-120-047	NA	No
K	057-120-048	1960	Yes
L	057-120-049	1988	No
M	057-120-050	NA	No
N	057-120-051	2005	No
O	057-180-014	1954	Yes
P	057-180-015	1956/1990	Yes
Q	UPRR	N/A	No

In addition, the current City of American Canyon General Plan states that the Napa County Department of Conservation currently maintains data on cultural resources within the County. Affected properties which have cultural resources are listed by assessor parcel number and are available to individual property owners. In addition, the City maintains a citywide cultural resource database to ensure that cultural resources throughout the community are not significantly impacted by future development. As a result, the City maintains a map with "Archaeologically Sensitive Areas" to determine the sensitivity of an area for new development.

Figure 4.5-1 Age Eligible Properties Map



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4.5.2 Regulatory Setting

a. Federal Regulations

National Register of Historic Places

Although the project does not have a federal nexus, properties which are listed in or have been formally determined eligible for listing in the National Register of Historic Places (NRHP) are automatically listed in the California Register of Historical Resources (CRHR). The following is therefore presented to provide applicable regulatory context. The NRHP was authorized by Section 101 of the National Historic Preservation Act and is the nation's official list of cultural resources worthy of preservation. The NRHP recognizes the quality of significance in American, state, and local history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects. Pursuant to 36 Code of Federal Regulations (CFR) Part 60.4, a property is eligible for listing in the NRHP if it meets one or more of the following criteria:

Criterion A: Are associated with events that have made a significant contribution to the broad patterns of our history.

Criterion B: Are associated with the lives of persons significant in our past.

Criterion C: Embody the distinctive characteristics of a type, period, or method of installation, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

Criterion D: Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting at least one of the above designation criteria, resources must also retain integrity. The National Park Service recognizes seven aspects or qualities that, considered together, define historic integrity. To retain integrity, a property must possess several, if not all, of these seven qualities, defined as follows:

- Location: The place where the historic property was constructed or the place where the historic event occurred.
- Design: The combination of elements that create the form, plan, space, structure, and style of a property.
- Setting: The physical environment of a historic property.
- Materials: Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- Workmanship: The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- Feeling: A property's expression of the aesthetic or historic sense of a particular period of time.
- Association: The direct link between an important historic event or person and a historic property.

Certain properties are generally considered ineligible for listing in the NRHP, including cemeteries, birthplaces, graves of historical figures, properties owned by religious institutions, relocated structures, or commemorative properties. Additionally, a property must be at least 50 years of age to be eligible for listing in the NRHP. The National Park Service states that 50 years is the general

estimate of the time needed to develop the necessary historical perspective to evaluated significance (National Park Service 1983). Properties which are less than 50 years must be determined to have "exceptional importance" to be considered eligible for NRHP listing.

b. State Regulations

California Environmental Quality Act

California Public Resources Code (PRC) Section 21804.1 requires lead agencies determine if a project could have a significant impact on historical or unique archaeological resources. As defined in PRC Section 21084.1, a historical resource is a resource listed in, or determined eligible for listing in, the CRHR; a resource included in a local register of historical resources or identified in a historical resources survey pursuant to PRC Section 5024.1(g); or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant. PRC Section 21084.1 also states resources meeting the above criteria are presumed to be historically or cultural significant unless the preponderance of evidence demonstrates otherwise. Resources listed in the NRHP are automatically listed in the CRHR and are, therefore, historical resources under CEQA. Historical resources may include eligible built environment resources and archaeological resources of the precontact or historic periods.

CEQA Guidelines Section 15064.5(c) provides further guidance on the consideration of archaeological resources. If an archaeological resource does not qualify as a historical resource, it may meet the definition of a "unique archaeological resource" as identified in PRC Section 21083.2. PRC Section 21083.2(g) defines a unique archaeological resource as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. It contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological resource does not qualify as a historical or unique archaeological resource, the impacts of a project on those resources will be less than significant and need not be considered further (CEQA Guidelines Section 15064.5[c][4]). CEQA Guidelines Section 15064.5 also provides guidance for addressing the potential presence of human remains, including those discovered during the implementation of a project.

According to CEQA, an impact that results in a substantial adverse change in the significance of a historical resource is considered a significant impact on the environment. A substantial adverse change could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired (CEQA Guidelines Section 15064.5 [b][1]). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register (CEQA Guidelines Section 15064.5[b][2][A]).

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a], [b]).

CEQA Guidelines Section 15126.4 stipulates an EIR shall describe feasible measures to minimize significant adverse impacts. In addition to being fully enforceable, mitigation measures must be completed within a defined time period and be roughly proportional to the impacts of the project. Generally, a project which is found to comply with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (the Standards) is considered to be mitigated below a level of significance (CEQA Guidelines Section 15126.4 [b][1]). For historical resources of an archaeological nature, lead agencies should also seek to avoid damaging effects where feasible. Preservation in place is the preferred manner to mitigate impacts to archaeological sites; however, data recovery through excavation may be the only option in certain instances (CEQA Guidelines Section 15126.4[b][3]).

California Register of Historical Resources

The CRHR was established in 1992 and codified by PRC Sections 5024.1 and 4852. The CRHR is an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected from substantial adverse change to the extent prudent and feasible (Public Resources Code, 5024.1(a)). The criteria for eligibility for the CRHR are consistent with the NRHP criteria but have been modified for state use to include a range of historical resources that better reflect the history of California (Public Resources Code, 5024.1(b)). Unlike the NRHP, the CRHR does not have a defined age threshold for eligibility; rather, a resource may be eligible for the CRHR if it can be demonstrated sufficient time has passed to understand its historical or architectural significance (California Office of Historic Preservation 2006). Further, resources may still be eligible for listing in the CRHR even if they do not retain sufficient integrity for NRHP eligibility (California Office of Historic Preservation 2006). Generally, the California Office of Historic Preservation recommends resources over 45 years of age be recorded and evaluated for historical resources eligibility (California Office of Historic Preservation 1995:2).

Properties are eligible for listing in the CRHR if they meet one of more of the following criteria:

Criterion 1: Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

Criterion 2: Is associated with the lives of persons important to our past.

Criterion 3: Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

Criterion 4: Has yielded, or may be likely to yield, information important in prehistory or history.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlie adjacent

remains, until the coroner of the county in which the remains are discovered has determined if the remains are subject to the coroner's authority. If the human remains are of Native American origin, the coroner must notify the NAHC within 24 hours of this identification.

California Public Resources Code Section 5097.98

California Public Resources Code Section 5097.98 states that the NAHC, upon notification of the discovery of Native American human remains pursuant to Health and Safety Code Section 7050.5, shall immediately notify those persons it believes to be descended from the deceased (i.e., the Most Likely Descendant or "MLD"). With permission of the landowner or a designated representative, the MLD may inspect the remains and any associated cultural materials and make recommendations for treatment or disposition of the remains and associated grave goods. The MLD shall provide recommendations or preferences for treatment of the remains and associated cultural materials within 48 hours of being granted access to the site.

c. Local Regulations

City of American Canyon General Plan

The current City of American Canyon General Plan contains goals and policies to avoid potential impacts to cultural resources. These goals and policies were created to ensure that the City's culturally significant resources are protected through the following:

- Conducting a comprehensive archaeological and cultural resources and historic vegetation survey in the City and Sphere of Influence;
- Adopting an Ordinance authorizing the City to designate appropriate vegetation or archaeological sites as American Canyon City Historic Points, Sites, or Districts as approved by the State Historic Office of Preservation;
- Exploring methods for the future preservation of historic vegetation and archaeological and cultural resources;
- Requiring all City-owned properties designated as historic resources are maintained in a manner that is aesthetically and/ or functionally compatible with the resources;
- Establishing a program of historic preservation incentives;
- Considering waiving building permit fees for small property owners with historic resources for the purpose of renovation/ preservation of that resource;
- Considering allowing flexibility in the building code requirements for rehabilitation of historic structures;
- Encouraging appropriate adaptive reuse of historic resources;
- Promoting the formation of neighborhood conservation organizations; and
- Encouraging the Chamber of Commerce to promote the City' s historic resources in visitor and tourist oriented materials (City of American Canyon General 2019).

The goals and policies from the General Plan relevant to cultural resources are identified below:

Goal 8E: To Promote the preservation and restoration of the sites, structures and districts that have architectural, historical, archaeological and/or cultural significance to the City of American Canyon.

Objective 8.19: Ensure that the City's historically and archaeologically significant resources are protected in a manner that preserves and/or enhances the resources' inherent historic value.

Policy 8.19.1: Conduct a comprehensive survey of archaeological and cultural resources and historic vegetation that is based on established criteria and encompasses the entire City and its Sphere of Influence.

Policy 8.19.2: Adopt a Preservation Ordinance that will authorize the City to designate appropriate vegetation or archaeological sites deemed to be of historic, archaeological, or cultural significance an American Canyon City Historic Point, Site or District. Such an ordinance shall conform to state and federal criteria for establishing a preservation ordinance.

Policy 8.19.3: Explore various methods for the future preservation of historic vegetation and archaeological and cultural resources. For example, consider establishing "receiver site" and "adopt a building" programs to preserve historic structures that must be removed from their sites. Additionally, consider utilizing the Secretary of the Interior Standards for Historic Rehabilitation and standards and guidelines prescribed by the State Office of Historic Preservation as the architectural and landscape design standards for rehabilitation, alteration, or additions to sites containing historic resources in order to preserve these structures in a manner consistent with the sites' architectural and historic integrity.

Policy 8.19.4: Though the design review process, encourage compatibility between new development and existing adjacent historic structures in terms of scale, massing, building materials and general architectural treatment.

Policy 8.19.5: Require that all City- owned properties designated as historic resources are maintained in a manner that is aesthetically and/or functionally compatible with such resources.

Objective 8.20: Provide incentives to private owners of historic resources to maintain and/ or enhance their properties in a manner that will conserve the integrity of such resources in the best possible condition.

Policy 8.20.1: Establish a program of historic preservation incentives that incorporates elements such as tax benefits provided by the 1981 Tax Revenue Act or any amended version of said act; the waiver of building permit fees for small property owners of historic resources; and flexible building code requirements.

Policy 8.20.2: Consider the waiver of building permit fees for small property owners with historic resources who are unable to benefit from other government programs for the rehabilitation, alteration, or reuse of their structure(s), provided that they rehabilitate their historic resources in accordance with established historic preservation guidelines.

Policy 8.20.3: Consider allowing flexibility in building code requirements for the rehabilitation of historic structures as specified in State Historical Building Code Part 8, Title 24 if these structures are rehabilitated in accordance with established historic preservation guidelines.

Policy 8.20.4: Prohibit demolitions if other alternatives exist that enable a property owner to sensitively add to the existing structure, or develop an accompanying building on the site that allows property development rights to be realized. Variances of setbacks, heights and parking requirements should be given to make the preservation of an existing historic building feasible when no other reasonable alternative exists.

Policy 8.20.5: Encourage appropriate adaptive reuse of historic resources such as the Basalt Plant in order to prevent misuse, disrepair and demolition, taking care to protect surrounding neighborhoods and/or agricultural land from incompatible uses.

Objective 8.21: Promote community appreciation of American Canyon's unique history and community involvement in its retention and preservation.

Policy 8.21.1: Promote the formation and maintenance of neighborhood organizations and foster the creation of neighborhood conservation programs, giving special attention to transitional areas.

Policy 8.21.2: Encourage the creation of a Chamber of Commerce to promote the City's historic resources in visitor and tourist oriented brochures as the City grows and develops.

4.5.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on cultural resources if it would:

1. Cause a substantial adverse change in the significance of a historic resource pursuant to Section 15064.5
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5
3. Disturb any human remains, including those interred outside of formal cemeteries

Methodology

If a project may cause a substantial adverse change in the characteristics of a resource that convey its significance or justify its eligibility for inclusion in the CRHR, either through demolition, destruction, relocation, alteration, or other means, then the project would have a significant effect on the environment (CEQA Guidelines Section 15064.5[b]).

Direct impacts can be assessed by identifying the types and locations of proposed development, determining the exact locations of cultural resources within the project site, assessing the significance of the resources that may be affected, and determining the appropriate mitigation. Removal, demolition, or alteration of historical resources can permanently impact the historic fabric of an archaeological site, building or structure, or historic district.

The State Legislature, in enacting the CRHR, amended CEQA to clarify which properties are significant, as well as which project impacts are considered significantly adverse. A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have significant effect on the environment (CEQA Guidelines Section 150645[b]). A substantial adverse change in the significance of a historical resource means demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired (CEQA Guidelines Section 150645[b][1]).

The CEQA Guidelines further state that "[t]he significance of an historical resource is materially impaired when a project… [d]emolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in the California Register … local register of historic resources… or its identification in an historic resources survey." As such, the consideration for determining whether the project will have

a significant impact on identified historic resources is whether it will materially impair the physical integrity of the historic resource, such that it could no longer be listed in the CRHR or a local landmark program.

Threshold 1:	Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Impact CUL-1 **THE PROJECT COULD ADVERSELY AFFECT PREVIOUSLY UNIDENTIFIED HISTORIC-PERIOD RESOURCES. IMPACTS TO HISTORIC-PERIOD RESOURCES WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.**

No previously recorded cultural resources are located within the projects site. However, review of historical maps and aerial photographs and review of available parcel data revealed there are several historic-aged buildings or structures located within and immediately adjacent to the project site. Currently there are no specific development plans within the project site; however, the project envisions development on parcels containing buildings that meet the age threshold for potential historical resources pursuant to CEQA.

Development facilitated by the project could result in material impairment of historical resources, which CEQA Guidelines Section 15064.5[b][2][A] defines as the demolition or alteration in an adverse manner [of] those characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR or a local register. The City of American Canyon currently has provisions under Goal 8E within its General Plan (described above in Section 4.5.2, *Regulatory Setting*) that address the identification and treatment of historical resources. These policies would help reduce impacts; however, they do not currently require formal historical resource evaluations or the consideration of measures to mitigate any potential impacts. As such, additional measures would be required to identify and mitigate impacts to historical resources to a less than significant level.

The implementation of Mitigation Measure CUL-1 would reduce impacts on historical resources by requiring evaluations for age-eligible buildings within the project site and avoiding impacts on any identified potential historical resources. This impact would be less than significant at the programmatic level with implementation of this mitigation measure.

Mitigation Measures

CUL-1 Historical Built Environment

Prior to project approval, the applicant shall submit a report to the City that identifies any historic-age features (i.e., structures over 45 years of age) proposed to be altered or demolished. If historical-age features are present, the applicant shall submit a historical resources evaluation to the City prepared in areas that contains buildings, structures, objects, sites, landscape/site plans, or other features that are 45 years of age or older, by a qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualifications Standards (PQS) in architectural history or history (36 CFR Part 61). The evaluation shall include an intensive-level evaluation, in accordance with the guidelines and best practices meeting the State Office of Historic Preservation guidelines. All evaluated properties shall be documented on Department of Parks and Recreation Series 523 Forms. The report shall be submitted to the City for review and approval.

If historical resources are identified through the survey and evaluation, efforts shall be made by the applicant to ensure that the relocation, rehabilitation, or alteration of the resource is consistent with the Secretary of the Interior's Standards for the Treatments of Historic Properties (Standards).

The applicant shall submit a report to the City that identifies and specifies the treatment of character-defining features and construction activities, and demonstrates how the project complies with the Standards and avoids the substantial adverse change in the significance of the historical resource as defined by CEQA Guidelines Section 15064.5(b). The report shall be prepared by an architectural historian or historical architect meeting the PQS as defined by 36 CFR Part 61 and provided to the City for review and concurrence prior to project approval.

Significance After Mitigation

Mitigation Measure CUL-1 would ensure a historical resource evaluation is conducted for sites with age-eligible resources within the project site and require measures to reduce impacts to historical resources to less than significant.

Threshold 2:	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Impact CUL-2 THE PROJECT COULD ADVERSELY AFFECT PREVIOUSLY UNIDENTIFIED ARCHAEOLOGICAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

No previously record cultural resources are located within the project site. However, ground disturbance into native soils in any areas within the project site could contain previously unknown prehistoric or historic-period resources. According to the Final EIR for the 2002 General Plan the northern half of the project site is an area designated "Archaeologically Sensitive Area" (City of American Canyon 2019). As a result, the potential to encounter unidentified archaeological resources within the project site, is moderate to high. Undeveloped areas, especially in the northern half of the project site have a higher probability of containing previously unidentified archaeological resources, given the City's known sensitivity of that area and probable lack of previous ground-disturbing activities in those areas.

Many portions of the project site have been previously developed for various purposes and uses. Nonetheless, there is the potential for both historic and prehistoric archaeological resources to exist surficially and below the ground surface throughout the project site, which could be disturbed by grading and excavation activities. Therefore, individual development projects within the project site that involve ground disturbance activities, including the Newell Drive Extension, would have the potential to damage or destroy archaeological resources, especially if they occur below the existing road base or in less disturbed sediments. Consequently, impacts would be potentially significant, and mitigation would be required for projects involving ground disturbance activities.

Mitigation Measures

CUL-2 Archaeological Resources Assessment

Prior to submittal of any discretionary development application that involves ground disturbance activities (that may include but are not limited to, pavement removal, potholing, grubbing, tree removal, and grading), the applicant shall submit an archaeological resources assessment prepared by a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards in either prehistoric or historic archaeology. Assessments shall include a CHRIS records search at the NWIC and a SLF Search from the NAHC. The records searches shall characterize the results of previous cultural resource surveys and disclose any cultural resources that have been recorded and/or evaluated in and around the development site. If the assessment begins on or

before 2027, the results of the NWIC and SLF search for this EIR can be summarized as part of the assessment. A Phase I pedestrian survey shall be undertaken in future project areas that are undeveloped to locate any surface cultural materials. By performing a records search, a SLF search, and a Phase I survey, a qualified archaeologist shall be able to classify the future project area as having high, medium, or low sensitivity for archaeological resources.

If the Phase I archaeological survey identifies resources that may be affected by the future project, the archaeological resources assessment shall also include Phase II testing and evaluation. If resources are determined significant or unique through Phase II testing and site avoidance is not possible, appropriate site-specific mitigation measures shall be identified in the Phase II evaluation. These measures may include, but would not be limited to, a Phase III data recovery program, avoidance, or other appropriate actions to be determined by a qualified archaeologist. If significant archaeological resources cannot be avoided, impacts may be reduced to less than significant level by filling on top of the sites rather than cutting into the cultural deposits. Alternatively, and/or in addition, a data collection program may be warranted, including mapping the location of artifacts, surface collection of artifacts, or excavation of the cultural deposit, to characterize the nature of the buried portions of sites. Curation of the excavated artifacts or samples would occur as specified by the archaeologist. The archaeological resources assessment shall be reviewed and approved by the City prior to project approval.

CUL-3 Unanticipated Discoveries

An Archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology shall be present on-site during all earth disturbing activities. If cultural resources are encountered during ground-disturbing activities, work within 100 feet of the area shall be halted and the contractor shall contact an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology in either prehistoric or historic archaeology immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work, such as excavating the cultural deposit to fully characterize its extent and collecting and curating artifacts may be warranted to mitigate any significant impacts to cultural resources. If archaeological resources of Native American origin are identified during construction, a qualified archaeologist will consult with the City to begin Native American consultation procedures. Periodic reports of the find and subsequent evaluations shall be submitted to the City during construction.

Significance After Mitigation

Mitigation Measures CUL-2 and CUL-3 would reduce potential impacts to a less than significant level by requiring the identification and evaluation of any archaeological resources that may be present prior to construction and by providing steps for the evaluation and protection of unanticipated finds encountered during construction.

Threshold 3:	Would the project disturb any human remains, including those interred outside of formal cemeteries?

Impact CUL-3 THE PROJECT COULD RESULT IN DAMAGE TO OR DESTRUCTION OF HUMAN BURIALS. IMPACTS WOULD BE LESS THAN SIGNIFICANT THROUGH ADHERENCE TO EXISTING REGULATIONS AND WITH MITIGATION.

Human burials outside of formal cemeteries can occur in prehistoric archaeological contexts. While no known burial sites have been identified within the project site, excavations during construction activities could have the potential to disturb these resources, which could include Native American burial sites. Although it is unlikely that human remains are present, the project site has the possibility of containing previously unidentified human remains.

Human burials, in addition to being potential archaeological resources, have specific provisions for treatment in PRC Section 5097. The California Health and Safety Code (Section 7050.5, 7051, and 7054) has specific provisions for the protection of human burial remains. Existing regulations address the illegality of interfering with human burial remains, and protect them from disturbance, vandalism, or destruction. They also include established procedures to be implemented if Native American skeletal remains are discovered. PRC Section 5097.98 also addresses the disposition of Native American burials, protects such remains, and establishes the NAHC to resolve any related disputes.

Construction associated with the project, including new development and the Newell Drive Extension would be subject to State of California Health and Safety Code Section 7050.5, which states that if human remains are unearthed, no further disturbance can occur until the county coroner has made the necessary findings as to the origin and disposition of the remains, pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the NAHC, which will determine and notify an MLD. The MLD shall complete the inspection of the site and make recommendations to the landowner within 48 hours of being granted access. Implementation of Mitigation Measures CUL-4 and CUL-5 would ensure that the appropriate protocols are followed if human remains are encountered and would reduce a potentially significant impact to a less than significant level.

Mitigation Measures

CUL-4 Human Remains

In the event of an accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and Public Resources Code Sections 5097.94 and Section 5097.98 shall be followed. If during project construction, there is accidental discovery or recognition of any human remains, the following steps shall be taken:

1. There shall be no further excavation or disturbance within 100 feet of the remains until the County Coroner is contacted to determine whether the remains are Native American and if an investigation of the cause of death is required. If the Coroner determines the remains to be Native American, the Coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours, and the NAHC shall identify the person or persons it believes to be the Most Likely Descendant (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work within 48 hours, for means of treating or disposing of, with appropriate dignity, the human remains, and any associated grave goods as provided in Public Resource Code Section 5097.98.

2. Where the following conditions occur, the landowner or authorized representative shall rebury the Native American human remains and associated grave goods with appropriate dignity either in accordance with the recommendations of the MLD or on the project site in a location not subject to further subsurface disturbance:
   - The NAHC is unable to identify an MLD or the MLD failed to make a recommendation within 48 hours after being notified by the commission.
   - The descendant identified fails to make a recommendation.
   - The landowner or authorized representative rejects the recommendation of the descendant, and mediation by the NAHC fails to provide measures acceptable to the landowner.

Additionally, California Public Resources Code Section 15064.5 requires the following relative to Native American Remains:

- When an initial study identifies the existence of, or the probable likelihood of, Native American Remains within a project, a lead agency shall work with the appropriate Native Americans as identified by the NAHC as provided in Public Resources Code Section 5097.98. The applicant may each develop a plan with respect to their respective individual development proposals for treating or disposing of, with appropriate dignity, the human remains, and any items associated with Native American Burials with the appropriate Native Americans as identified by the NAHC.

CUL-5 Tribal Monitoring

A Tribal Monitor representing the Yocha Dehe Wintun Nation shall be present during all project-related ground disturbance. Additionally, the Yocha Dehe Wintun Nation's Treatment Protocol (Protocol) shall be followed with respect to Tribal Cultural Resources (TCRs). The purpose of the protocol is to formalize procedures for the treatment of Native American human remains, grave goods, ceremonial items, and items of cultural patrimony, if any are found in conjunction with development, including archaeological studies, excavation, geotechnical investigations, grading, and any ground-disturbing activity. This Protocol also formalizes procedures for Tribal Monitoring during archaeological studies, grading, and ground-disturbing activities.

1. Cultural Affiliation: The Yocha Dehe Wintun Nation (Tribe) traditionally occupied lands in Yolo, Solano, Lake, Colusa, and Napa Counties. The Tribe has designated its Cultural Resources Committee (Committee) to act on the Tribe's behalf with respect to the provisions of this Protocol. Any human remains which are found in conjunction with projects on lands culturally affiliated with the Tribe shall be treated in accordance with Section III of this Protocol. Any other cultural resources shall be treated in accordance with Section IV of this Protocol.
2. Inadvertent Discovery of Native American Human Remains: Whenever Native American human remains are found during the course of a project, the determination of Most Likely Descendant (MLD) under California Public Resources Code Section 5097.98 will be made by the Native American Heritage Commission (NAHC) upon notification to the NAHC of the discovery of said remains at a project site. If the location of the site and the history and prehistory of thearea is culturally affiliated with the Tribe, the NAHC contacts the Tribe; a Tribal member will be designated by the Tribe to consult with the landowner and/or project proponents.

   Should the NAHC determine that a member of an Indian tribe other than Yocha Dehe Wintun Nation is the MLD, and the Tribe agrees with this determination, the terms of this Protocol relating to the treatment of such Native American human remains shall not be applicable; however, that situation is very unlikely.

3. Treatment of Native American Remains: In the event that Native American human remains are found during development of a project and the Tribe or a member of the Tribe is determined to be MLD pursuant to Section II of this Protocol, the following provisions shall apply. The Medical Examiner shall immediately be notified, ground-disturbing activities in that location shall cease and the Tribe shall be allowed, pursuant to California Public Resources Code Section 5097.98(a), to (1) inspect the site of the discovery and (2) make determinations as to how the human remains and grave goods shall be treated and disposed of with appropriate dignity. The Tribe shall complete its inspection and make its MLD recommendation within 48 hours of getting access to the site. The Tribe shall have the final determination as to the disposition and treatment of human remains and grave goods. Said determination may include avoidance of the human remains, reburial on-site, or reburial on tribal or other lands that will not be disturbed in the future. The Tribe may wish to rebury said human remains and grave goods or ceremonial and cultural items on or near the site of their discovery, in an area which will not be subject to future disturbances over a prolonged period of time. Reburial of human remains shall be accomplished in compliance with the California Public Resources Code Sections 5097.98(a) and (b). The term "human remains" encompasses more than human bones because the Tribe's traditions call for the burial of associated cultural items with the deceased (funerary objects), and/or the ceremonial burning of Native American human remains, funerary objects, grave goods, and animals. Ashes, soils, and other remnants of these burning ceremonies, as well as associated funerary objects and unassociated funerary objects buried with or found near the Native American remains are to be treated in the same manner as bones or bone fragments that remain intact.
4. Non-Disclosure of Location of Reburials: Unless otherwise required by law, the site of any reburial of Native American human remains shall not be disclosed and will not be governed by public disclosure requirements of the California Public Records Act, California Government Code Section 6250 et seq. The Medical Examiner shall withhold public disclosure of information related to such reburial pursuant to the specific exemption set forth in California Government Code Section 6254(r). The Tribe will require that the location for reburial is recorded with the California Historic Resources Inventory System (CHRIS) on a form acceptable to the CHRIS center. The Tribe may also suggest the landowner enter into an agreement regarding the confidentiality of site information that will run with title on the property.
5. Treatment of Cultural Resources: Treatment of all cultural items, including ceremonial items and archaeological items will reflect the religious beliefs, customs, and practices of the Tribe. All cultural items, including ceremonial items and archaeological items, which may be found at a project site shall be turned over to the Tribe for appropriate treatment, unless ordered by a court or agency of competent jurisdiction. The project proponent shall waive any and all claims to ownership of Tribal ceremonial and cultural items, including archaeological items, which may be found on a project site in favor of the Tribe. If any intermediary, (for example, an Archaeologist retained by the project proponent) is necessary, said entity or individual shall not possess those items for longer than is reasonably necessary, as determined solely by the Tribe.
6. Inadvertent Discoveries: If additional significant sites or sites not identified as significant in a project environmental review process, but later determined to be significant, are located within a project impact area, such sites will be subjected to further archaeological and cultural significance evaluation by the project proponent, the Lead Agency, and the Tribe to determine whether additional mitigation measures are necessary to treat sites in a culturally appropriate manner consistent with CEQA requirements for mitigation of impacts to cultural resources. If

there are human remains present that have been identified as Native American, all work will cease for a period of up to 30 days in accordance with Federal Law.

Significance After Mitigation

Mitigation Measures CUL-4 and CUL-5 would reduce potential impacts on human remains to a less than significant level by requiring the implementation of the appropriate protocols.

4.5.4 Cumulative Impacts

The potential for impacts to built environment historical resources from individual developments is site-specific and depends on the location and nature of each individual development proposal. All future development projects would continue to be subject to existing federal, State, and local requirements. At this time, it cannot be known whether each individual project would result in a significant impact on a historical resource. It should be noted that the closest and largest cumulative project (Watson Ranch Specific Plan) identified no impacts to a historical resource (City of American Canyon 2018). Nonetheless, there is still the potential for cumulative projects to alter or demolish a historical resource within the City, which could result in a significant cumulative impact. The project would implement Mitigation Measure CUL-1, which would result in the project resulting in a less than significant impact. As such, because the project would result in a less than significant impact on historical resources, the impacts from the project would be less than cumulatively considerable.

Cumulative development could potentially disturb areas that may contain archaeological resources. While there is the potential for significant cumulative impacts to cultural resources, it is anticipated that potential impacts associated with individual development projects would be addressed on a case-by-case basis and would be subject to City policies and local and State regulations regarding the protection of such resources. It should be noted that the closest and largest cumulative project (Watson Ranch Specific Plan) identified that impacts on archaeological resources would be less than significant after application of mitigation requiring appropriate treatment of the unanticipated discovery of archaeological resources (City of American Canyon 2018). Similarly, the project would include Mitigation Measures CUL-2 and CUL-3, which would require the identification and evaluation of any archaeological resources prior to construction and would provide steps for the evaluation and protection of unanticipated finds encountered during construction. Implementation of these mitigation measures would ensure that the project's contribution to a cumulative impact on archaeological resources would be less than considerable.

Cumulative projects could also result in impacts on human remains, if any human remains are found during construction. However, all cumulative development projects would be subject to the same regulations identified in Impact CUL-3 through CUL-5. Because cumulative projects would adhere to regulations that would protect human remains, impacts on human remains would be less than significant.

4.6 Energy

This section analyzes the potential effects related to energy due to implementation of the project.

4.6.1 Setting

a. Energy Fundamentals

Energy is generally transmitted either in the form of electricity, measured in kilowatts (kW) or megawatts (MW); natural gas, measured in British thermal units (BTU), cubic feet, or therms; or fuel (such as gasoline or diesel), measured in gallons or liters. Electricity is used primarily for lighting, appliances, cooking purpose, heating, ventilation, and air conditioning equipment, and other uses associated with building and vehicle operations. Electricity sources range from renewable (e.g., hydroelectric, solar, wind, geothermal, biomass) to nonrenewable (e.g., natural gas, oil, nuclear, coal). Natural gas is used primarily for space and water heating, as well as cooking purposes and industrial processes. Natural gas is typically associated with building operations. Fuel is used primarily for powering on-road and off-road vehicles and equipment. Typical fuel types are diesel and gasoline.

b. Electricity Generation, Distribution, and Use

California

According to the California Energy Commission (CEC), California generated approximately 194,127 gigawatt-hours (GWh) of electricity in 2021. Approximately 50 percent of this electricity was sourced from natural gas, 35 percent from renewable sources, 6 percent from large hydroelectric sources, and the remaining 9 percent was sourced from coal, nuclear, oil, and other and unspecified sources. Specifically, 33.6 percent of California's 2021 retail electric sales were served by renewable resources, including wind, solar, geothermal, biomass, and small hydroelectric. (CEC 2022a). Electricity is distributed through the various electric load-serving entities in California. These entities include investor-owned utilities, publicly owned load-serving entities, rural electric cooperatives, community choice aggregators, and electric service providers (CEC 2022a). According to the U.S. Energy Information Administration (USEIA), total retail sale of electricity within California in 2021 was 247,250 GWh. California electricity consumption in 2021 represented approximately 6.5 percent of total U.S. electricity consumption in 2021 (USEIA 2022).

Napa County

Napa County consumed approximately 1,021 GWh of electricity in 2021 from residential and non-residential uses (CEC 2022a). The project would be served electricity by Pacific Gas and Electric (PG&E). PG&E's default power mix offers 29 percent renewable, and they offer customers options for 64 percent or 100 percent renewable power mixes (PG&E 2019). In conjunction with PG&E and other utility companies, the California Public Utilities Commission (CPUC) is involved in energy conservation programs. PG&E is the electricity provider for the City of American Canyon. Marin Clean Energy (MCE) is a community choice program, that allows users of electricity in the City of American Canyon to opt into its program, which provides renewable energy to its customers.

c. Natural Gas Distribution and Use

California

According to the CPUC, natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are the Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora (CPUC 2022). Because natural gas is a dispatchable energy resource that provides load when the availability of hydroelectric power generation and/or other energy sources decrease, distribution varies greatly from year to year. The availability and distribution of hydroelectric-sourced energy, increasing renewable-source energy, and overall consumer demand shape the need for natural gas. In 2021, total California natural gas demand for industrial, residential, commercial, and electric power generation was 11,923 million therms per year.

Napa County

Napa County consumed approximately 38 million therms of natural gas in 2021, in both residential and non-residential uses (CEC 2022b). PG&E is the natural gas provider for the City of American Canyon.

d. Fuel Distribution and Use

California

According to the 2015 CEC market share data, distributors of gasoline include companies or individuals who make the first distribution of gasoline in California. Aircraft manufacturers and certificated or licensed carriers by air may be included within the definition of distributor. Distributors can also be "brokers," which includes every person, other than a distributor or a retailer, who deals in lots of 200 or more gallons of gasoline (CEC 2015).

Based on the California Transportation of Petroleum Second Northern California Refinery Safety Forum, output from the refineries is usually placed in intermediate tanks before blending finished products. Most gasoline is shipped from refinery by pipeline, which serves over 60 distribution terminals, which is then transported to retail and nonretail stations by tanker trucks (Schremp 2015).

The main category of fuel use in California is transportation fuel, specifically gasoline and diesel. Gasoline is the most used transportation fuel in California: 97 percent of all gasoline sold in California is consumed by light-duty cars, pickup trucks, and sport utility vehicles. In 2021, an estimated 11,618 million gallons of gasoline annually were used (i.e., 32 million gallons gasoline per day) (CEC 2022c). Diesel is the second largest transportation fuel used in California. Many heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm, construction, and heavy-duty military vehicles and equipment have diesel engines. According to the 2021 California Annual Retail Fuel Outlet Report Results (CEC-A15), in 2021, 1,611 million gallons of diesel annually (i.e., 4.4 million gallons of diesel per day), including off-road diesel were sold (CEC 2022d).

Napa County

Gasoline is distributed throughout the County by retail and non-retail gas stations. In 2021, Napa County had an estimated total of 36 retail gasoline stations (CEC 2022d). According to the California Annual Retail Fuel Outlet Report Results (CEC-A15), retail gasoline sales in Napa County totaled approximately 47 million gallons, and retail diesel sales totaled approximately 6 million gallons in 2021 (CEC 2022d). As shown in Table 4.6-1, average per capita gasoline consumption in the County is approximately 342 gallons and average per capita diesel consumption in the County is approximately 44 gallons.

Table 4.6-1 Napa County 2021 Gasoline and Diesel Consumption

Fuel Type	County Consumption (gallons per year)	County Population (2021)	County Per Capita Consumption (gallons)
Gasoline	47,000,000	137,518	342
Diesel	6,000,000	137,518	44

Sources: DOF 2022; CEC 2022d

4.6.2 Regulatory Setting

Additional regulatory information related to energy efficiency standards is included throughout the other resource sections including Section 4.17, *Utilities and Service Systems*; Section 4.3, *Air Quality*; and Section 4.8, *Greenhouse Gas Emissions*.

a. Federal Regulations

Energy Policy and Conservation Act

Enacted in 1975, the Energy Policy and Conservation Act legislation established fuel economy standards for new light-duty vehicles (autos, pickups, vans, and sport-utility vehicles). The law placed responsibility on the National Highway Traffic and Safety Administration (NHTSA), a part of the U.S. Department of Transportation (USDOT), for establishing and regularly updating vehicle standards. The U.S. Environmental Protection Agency (USEPA) administers the Corporate Average Fuel Economy (CAFE) program, which determines vehicle manufacturers' compliance with existing fuel economy standards. Since the inception of the program, the average fuel economy for new light-duty vehicles steadily increased from 13.1 miles per gallon (mpg) for the 1975 model year to 30.7 mpg for the 2014 model year, and may increase to 54.5 mpg by 2025.

On August 2, 2018, the NHTSA and USEPA, operating under the direction of the Trump Administration, proposed the Safer Affordable Fuel-Efficient Vehicles Rule (SAFE Rule). This rule addresses emissions and fuel economy standards for motor vehicles and is separated in two parts as described below.

- Part One, "One National Program" (84 Feder Register 51310) revokes a waiver granted by USEPA to the State of California under Section 209 of the Clean Air Act to enforce more stringent emission standards for motor vehicles than those required by USEPA for the explicit purpose of greenhouse gas (GHG) emission reduction, and indirectly, criteria air pollutants and ozone precursor emission reduction. This revocation became effective on November 26, 2019, potentially restricting the ability of the California Air Resources Board (CARB) to enforce more stringent GHG emission standards for new vehicles and set zero emission vehicle mandates in California.

- Part Two addresses CAFE standards for passenger cars and light trucks for model years 2021 to 2026. This rulemaking proposes new CAFE standards for model years 2022 through 2026 and would amend existing CAFE standards for model year 2021. The proposal would retain the model year 2020 standards (specifically, the footprint target curves for passenger cars and light trucks) through model year 2026. The proposal addressing CAFE standards was jointly developed by NHTSA and USEPA, with USEPA simultaneously proposing tailpipe carbon dioxide standards for the same vehicles covered by the same model years.

The USEPA and NTHSA published final rules to amend and establish national carbon dioxide and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 Federal Register 24174). On April 22, 2021, the Biden Administration formally proposed to roll back portions of the SAFE Rule, thereby restoring California's right to enforce more stringent fuel efficiency standards (NHTSA 2022). Most recently, on December 21, 2021, the NHTSA finalized rules to repeal the SAFE I Rule. The final rule concludes the SAFE I Rule overstepped the agency's legal authority and established overly broad prohibitions that did not account for a variety of important state and local interests. The final rule ensures the SAFE I Rule will no longer form an improper barrier to states exploring creative solutions to address their local communities' environmental and public health challenges (NHTSA 2022).

Construction Equipment Fuel Efficiency Standard

USEPA sets emission standards for construction equipment. The first federal standards (Tier 1) were adopted in 1994 for all off-road engines over 50 horsepower (hp) and were phased in by 2000. A new standard was adopted in 1998 that introduced Tier 1 for all equipment below 50 hp and established the Tier 2 and Tier 3 standards. The Tier 2 and Tier 3 standards were phased in by 2008 for all equipment. The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements, which are contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068 (originally adopted in 69 Federal Register 38958 [June 29, 2004] and most recently updated in 2014 [79 Federal Register 46356]). Emissions requirements for new off-road Tier 4 vehicles were completely phased in by the end of 2015.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 was designed to improve vehicle fuel economy and help reduce nationwide dependence on foreign oil. It expands the production of renewable fuels, reducing dependence on oil, and confronting global climate change. Specifically, it increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard, requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, and reduces U.S. demand for oil by setting a national fuel economy standard of 35 mpg by 2020. The Act also set energy efficiency standards for lighting (specifically light bulbs) and appliances. The project would be required to install photosensors and energy-efficient lighting fixtures with the requirements of 42 United States Code Section 17001 et seq.

U.S. Executive Order 13693 (Energy Independence and Security Act Expansion)

In March 2015, Executive Order 13693 *Planning for Federal Sustainability in the Next Decade* was signed into action. The goal of this Executive Order is to expand on the Energy Independence and

Security Act of 2007 and maintain federal leadership in sustainability and GHG emission reductions. The Executive Order includes the following goals related to energy:

- 25 percent reduction in energy use intensity (as compared to 2015 baseline)
- 30 percent of electricity supply from renewable energy by 2025
- 25 percent of total building energy (electric and alternative energy) from renewable energy by 2025

Energy Star Program

In 1992, the USEPA introduced Energy Star© as a voluntary labeling program designed to identify and promote energy-efficient products to reduce GHG emissions. The program applies to major household appliances, lighting, computers, and building components such as windows, doors, roofs, and heating and cooling systems. Under this program, appliances that meet specification for maximum energy use established under the program are certified to display the Energy Star© label. In 1996, the USEPA joined with the United State Department of Energy to expand the program, which now also includes qualifying commercial and industrial buildings as well as homes.

b. State Regulations

Additional State Regulations related to energy are provided in Section 4.8, *Greenhouse Gas Emissions*.

California Energy Action Plan

The CEC, in collaboration with CPUC, is responsible for preparing the California Energy Action Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The 2003 Energy Action Plan calls for the State to assist in transformation of the transportation system to improve air quality, reduce congestion, and increase efficient use of fuel supplies with the least environmental and energy costs. The Energy Action Plan identifies strategies, such as assistance to public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, and encourages urban designs that reduce VMT and accommodate pedestrian and bicycle access. In the 2005 Energy Action Plan, the CEC and CPUC updated the energy policy vision by adding dimensions to the policy areas, such as information on the emerging importance of climate change, transportation-related energy issues, and research and development activities. The CEC adopted an update to the 2005 Energy Action Plan in 2008 that supplements the earlier Energy Action Plans and examines the State's ongoing actions in the context of global climate change.

AB 1279 and 2022 Scoping Plan

AB 1279, "The California Climate Crisis Act," was passed on September 16, 2022, and declares the State would achieve net zero GHG emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative greenhouse gas emissions thereafter. In addition, the bill states that the State would reduce GHG emissions by 85 percent below 1990 levels no later than 2045. The 2022 Scoping Plan lays out a path to achieve AB 1279 targets (CARB 2022). The actions and outcomes in the 2022 Scoping Plan would achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

Senate Bills 350, 100, and 1020

The Clean Energy and Pollution Reduction Act of 2015 (Senate Bill [SB] 350) requires the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources to be increased to 50 percent by December 31, 2030. This act also requires doubling of the energy efficiency in existing buildings by 2030.

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the State's Renewables Portfolio Standard Program (last updated by SB 350). SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 44 percent by 2024, 60 percent by 2030, and 100 percent by 2045.

Senate Bill 1020 (SB 1020), signed into law on September 16, 2022, requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035, 95 percent by 2040, and 100 percent by 2045. All State agencies facilities must be served by 100 percent renewable and zero-carbon resources by 2030. SB 1020 also requires the CPUC, CEC, and CARB to issue a joint progress report outlining the reliability of the electrical grid with a focus on summer reliability and challenges and gaps. Additionally, SB 1020 requires the CPUC to define energy affordability and use energy affordability metrics to develop protections, incentives, discounts, or new programs for residential customers facing hardships due to energy or gas bills.

Assembly Bill 1007

Assembly Bill 1007 (Chapter 371, Statutes of 2005) required the CEC to prepare a State plan to increase the use of alternative fuels in California. The CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other federal, state, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

c. Local Regulations

City of American Canyon Energy Efficiency Climate Action Plan

The City of American Canyon Energy Efficiency Climate Action Plan (EECAP) was adopted to develop a coordinated approach to energy efficiency and GHG reductions within the community and local government. The EECAP provides feasible strategies and measures that cost-effectively reduce energy related and GHG emissions. The following strategies and measures would be relevant to future development facilitated by the project:

- Community Strategy 3. New Development – Non-residential: Ensure new development exceeds California's Title 24 energy efficiency standard by 15 percent or more.
    - Measure C-6: Savings By Design for New Non-Residential Construction. Savings By Design is a statewide program offered by PG&E to encourage high-performance new building design and construction for commercial buildings. The program offers building owners and their design teams a wide range of services, such as Design Assistance, Design Team Incentives,

Owner Incentives, and educational resources such as Energy Design Resources (EDR) and Zero Net Energy.

- Community Strategy 6. Renewable Energy: Increase the number of distributed renewable energy installations on residential and Non-Residential properties to 3 new non-residential sites/year and 15 residential sites/year by 2020.
  - Measure C-11: Solar Ready Roofs for New Construction. For all new construction starting in 2014, building roofs must be constructed to readily accommodate the installation of installation of solar PV panels and solar water heating systems, including all necessary conduit, chases, roof penetrations, roof pitch, and roof orientation.

City of American Canyon General Plan

The current City of American Canyon General Plan contains the following objectives and policies that help address energy use at the local level and improve energy efficiency and conservation:

Objective 8.22: Minimize transportation-related energy consumption.

Policy 8.22.1: Encourage the development of mixed use, pedestrian friendly employment/ residential centers that help minimize vehicle trips in American Canyon and contribute to a reduction in energy consumption.

Policy 8.22.2: Encourage the clustering of residential structures.

Policy 8.22.3: Require that Development Plans provide for linkages between bicycle and pedestrian circulation systems and transit and employment centers, in accordance with established areawide plans.

Policy 8.22.4: Maintain a system of traffic signals and controls that minimizes waiting time and vehicle speed changes through routes.

Policy 8.22.5: Require that Development Plans provide for High-Occupancy Vehicles (HOV) and public transportation, where feasible, through the provision of appropriate transit areas and park-and-ride locations along public transportation routes.

Objective 8.23: Reduce Energy consumption in buildings.

Policy 8.23.1: Require that developers employ energy-efficient subdivision and site planning methods as well as building design. Measures to be considered include building orientation and shading, landscaping, building reflectance, use of active and passive solar heating and hot water system, etc. In establishing these energy related design requirements, the City shall balance energy-efficient design with good planning principles.

Policy 8.23.2: Require that new City buildings be energy efficient.

Objective 8.24: Increase public awareness of energy conservation needs and means in order to encourage informed choices about energy conservation by the general public.

Policy 8.24.1: Cooperate with local utilities to provide energy conservation information to the public.

Policy 8.24.2: Develop public and/or public-private energy conservation educational programs for City employees and the public.

Objective 8.25: Increase the energy efficiency of City operations to save energy, reduce municipal costs, and provide an example to the private sector.

Policy 8.25.1: Introduce concepts of energy efficiency and lifecycle costing to City planning and operating decisions and to the design of all major City facilities.

Policy 8.25.2: Work with other agencies and utility companies to develop safe, economical and renewable energy resources.

Policy 8.25.3: Consider participating in energy conservation demonstration projects and promoting the use of treatment technologies that provide for the reuse of waste and water treatment by products, such as sludge and methane gas.

4.6.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on energy if it would:

1. Result in 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?

Methodology

The approach to analyzing energy impacts is based on Public Resources Code Section 21100(b)(3), which states an EIR shall include "mitigation measures proposed to minimize significant effects on the environment, including, but not limited to, measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." Guidance for implementing this section is provided in CEQA Guidelines Appendix F (Energy Conservation). CEQA Guidelines Section 15126.2(b) further explains, "This [energy] analysis may be included in related analyses of air quality, GHG emissions, transportation or utilities in the discretion of the lead agency." Consistent with that approach, additional discussion of the physical environmental impacts associated with production of energy is also included in the other resource chapters of this EIR included but not limited to Section 4.3, *Air Quality*, Section 4.8, *Greenhouse Gas Emissions*, Section 4.15, *Transportation*, and Section 4.17, *Utilities and Service Systems*.

Energy consumption is analyzed herein in terms of construction and operational energy. Construction energy demand accounts for anticipated energy consumption during construction of development facilitated by the project or the Newell Drive Extension, such as fuel consumed by construction equipment and construction workers' vehicles traveling to and from the construction site. Operational energy demand accounts for the anticipated energy consumption during operation of the development facilitated by the project, such as fuel consumed by cars, trucks, and public transit; natural gas consumed for on-site power generation and heating building spaces; and electricity consumed for building power needs, including, but not limited to lighting, water conveyance, and air conditioning. This analysis considers the equipment and processes employed during construction and operation of future project development to qualitatively determine whether energy consumed during construction and operation would be wasteful, inefficient, or unnecessary.

a. Project Impacts and Mitigation Measures

Threshold 1:	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?

Impact E-1 THE PROJECT WOULD NOT RESULT IN THE WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction

Project construction would require demolition, including hauling material off-site; site preparation and grading; pavement and asphalt installation; building construction; architectural coating; and landscaping and hardscaping. During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment, construction worker travel to and from the construction site, and vehicles used to deliver materials to the site.

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Furthermore, pursuant to applicable regulatory requirements such as 2022 CALGreen, the project would comply with construction waste management practices to divert a minimum of 65 percent of construction debris. These practices would result in efficient use of energy necessary to construct the project. In the interest of cost-efficiency, construction contractors also would not utilize fuel in a manner that is wasteful or unnecessary.

On-site construction equipment may include alternatively fueled vehicles where feasible. Furthermore, the selected construction contractors would use the best available engineering techniques, construction and design practices, and equipment operating procedures, thereby ensuring that the wasteful consumption of fuels and use of energy would not occur. Energy efficiency is also expected for the off-site production of construction materials, based on the economic incentive for efficiency and cost savings. Furthermore, such construction energy expenditures are necessary to implement the project and meet the project objectives. Therefore, project construction would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant.

Operations

Operations of the project would contribute to regional energy demand by consuming electricity, gasoline, diesel, and potentially natural gas. Electricity would be used for lighting, appliances, and water and wastewater conveyance, among other purposes. Gasoline and diesel consumption would be associated with vehicle trips generated by visitors and employees of future development. Natural gas could be utilized for heating and cooling systems, and other purposes; however, it is not certain at this time whether natural gas would be used.

The project would be required to comply with all standards set in the latest iteration of the California Building Standards Code (California Code of Regulations Title 24), which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources by the buildings during operation. California's CALGreen standards (California Code of Regulations Title 24, Part 11) require implementation of energy-efficient light fixtures and building materials into the design of new construction projects. In addition, the 2022 Building Energy Efficiency Standards (California Code of Regulations Title 24, Part 6) require newly constructed buildings to meet energy performance standards set by the CEC. These standards are specifically crafted for new buildings to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. Pursuant to CALGreen, all plumbing fixtures used in future developments facilitated by the project would be high-efficiency fixtures, which would minimize the potential for the inefficient or wasteful consumption of energy related to water and wastewater. Furthermore, as discussed in Section 4.15, *Transportation*, the project would result in a less than significant VMT impact. Therefore, project operation would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy, and impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2:	Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Impact E-2 THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT A STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY BECAUSE THE PROJECT WOULD REQUIRE MITIGATION MEASURES THAT REQUIRE ADVANCED ENERGY EFFICIENCY AND THE USE OF CARBON-FREE ELECTRICITY SOURCES. THEREFORE, IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The building design standards pursuant to the CALGreen Code are required for new buildings and are specifically crafted for new buildings to result in energy-efficient performance, so the buildings do not result in inefficient consumption of energy. The standards are updated every three years, and each iteration is more energy efficient than the previous standards. For example, according to the CEC, nonresidential buildings built with the 2019 standards used about 30 percent less energy than buildings built with the 2016 standards due mainly to lighting upgrades (CEC 2021). The project would comply with Tier 2 advanced energy efficiency requirements of the Nonresidential Voluntary Measures of the CALGreen Code, as required by Mitigation Measure GHG-4 (see Section 4.8, *Greenhouse Gas Emissions*).

SB 100 mandates 100 percent clean electricity for California by 2045. Mitigation Measure GHG-5 requires new buildings to be supplied with 100 percent carbon-free electricity sources through the year 2045 with on-site photovoltaic solar (see Section 4.8, *Greenhouse Gas Emissions*).

Overall, implementation of Mitigation Measures GHG-4 and GHG-5 would ensure that any potentially significant impacts related to consistency with applicable state and local plans for increased energy efficiency and renewable energy use would be less than significant with mitigation.

Mitigation Measures

Mitigation Measures GHG-4 and GHG-5 (see Section 4.8, *Greenhouse Gas Emissions*).

Significance After Mitigation

Impacts would be less than significant with mitigation.

4.6.4 Cumulative Impacts

The geographic scope for cumulative energy impacts is the entirety of California. Cumulative projects would be required to comply with the same regulations as the project to ensure that there is no wasteful, inefficient, or unnecessary consumption of energy or conflicts with state and local plans for increased energy efficiency and renewable energy use.

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4.7 Geology and Soils

This section analyzes the potential effects related to seismic hazards, underlying soil characteristics, slope stability, erosion, and paleontological resources related to implementation of the project.

4.7.1 Setting

a. Regional Geology

The City of American Canyon is in Napa County, which is located within the California Coast Range geomorphic province. This province is a geologically complex and seismically active region characterized by sub-parallel northwest-trending geological faults, mountain ranges, and valleys, with different bedrock and sedimentary units. The oldest bedrock units are the Jurassic-Crustaceous Franciscan Complex and Great Valley sequence sediments originally deposited in a marine environment. Subsequently, younger rocks such as the Tertiary-period Sonoma Volcanics group, the Plio-Pleistocene-age Clear Lake Volcanics, and sedimentary rocks such as the Guinda, Domengine, Petaluma, Wilson Grove, Cache, Huichica, and Glen Ellen formations were deposited throughout the province. Extensive folding and thrust faulting during the late Crustaceous through early Tertiary geologic time created complex geologic conditions that underlie the highly varied topography that exists today. In valleys, the bedrock is covered by thick alluvial soils (Napa County 2007).

b. Local Geologic Setting

Soils

According to the US Department of Agriculture, Natural Resources Conservation Service (NRCS), two soils comprise the project site. Most of the soils are Clear Lake clay and a portion of the soils in the center of project site along with a small portion at the north is Haire loam. These are native soil types and do not account for placement of engineered fill, which is not always mapped or known by the NRCS.

Seismic Hazards

The City of American Canyon is subject to risks associated with potentially destructive earthquakes, like much of California. Earthquakes are most common along geologic faults, which are planes of weakness or fractures along which rocks have been displaced. The project site is near active faults, such as the Cuttings Wharf fault (approximately 0.3 mile west), West Napa fault (approximately 5.2 miles northwest), and Cordelia and Green Valley faults (approximately 5.4 miles east) (DOC 2021). Regional hazards with respect to earthquakes are considered significant due to the City's proximity to major faults in the area (e.g., San Andreas and Hayward) and the project site’s proximity to minor faults listed above.

The probability of one or more earthquakes of magnitude 6.7 (Richter scale) or higher occurring in the San Francisco Bay Area has been evaluated by the U.S. Geological Survey (USGS). Based on the results of the USGS evaluation, there is a 63-percent likelihood that such an earthquake event will occur in the Bay Area between 2007 and 2036. The faults with the greater probability of movement with a magnitude of 6.7 or higher earthquake are the Hayward Fault at 27 percent, the San Andreas Fault at 21 percent, and the Calaveras Fault at 11 percent (USGS 2007).

Surface Rupture

Surface rupture represents the breakage of ground along the surface trace of a fault, which is caused by the intersection of the fault surface area ruptured in an earthquake with the earth's surface. Fault displacement occurs when material on one side of a fault moves relative to the material on the other side of the fault. This can have particularly adverse consequences when buildings are located within the rupture zone. It is not feasible from a structural or economic perspective to design and build structures that can accommodate rapid displacement involved with surface rupture. Amounts of surface displacement can range from a few inches to tens of feet during a rupture event.

Faults are geologic hazards because of surface fault displacement and seismic ground shaking, which are distinct but related properties. Surface fault displacement results when the fault plane ruptures and that rupture surface extends to or intersects the ground surface. Surface fault rupture can be very destructive to structures constructed across active faults. However, the zone of damage is limited to a relatively narrow area along either side of the fault as opposed to seismic ground shaking damage that can be widespread. Faults are categorized as active, potentially active, and inactive. A fault is classified as active if it has moved during the Holocene time, which consists of approximately the last 11,000 years. A fault is classified as potentially active if it has experienced movement within Quaternary time, which is during the last 1.8 million years. Faults that have not moved in the last 1.8 million years are generally considered inactive.

The closest faults are described above under the *Seismic Hazards* subheading. Figure 4.7-1 shows the project site in relation to nearby Quaternary faults. There are no Holocene faults or Alquist-Priolo Fault Zones in or near the project site.

Regional Faults

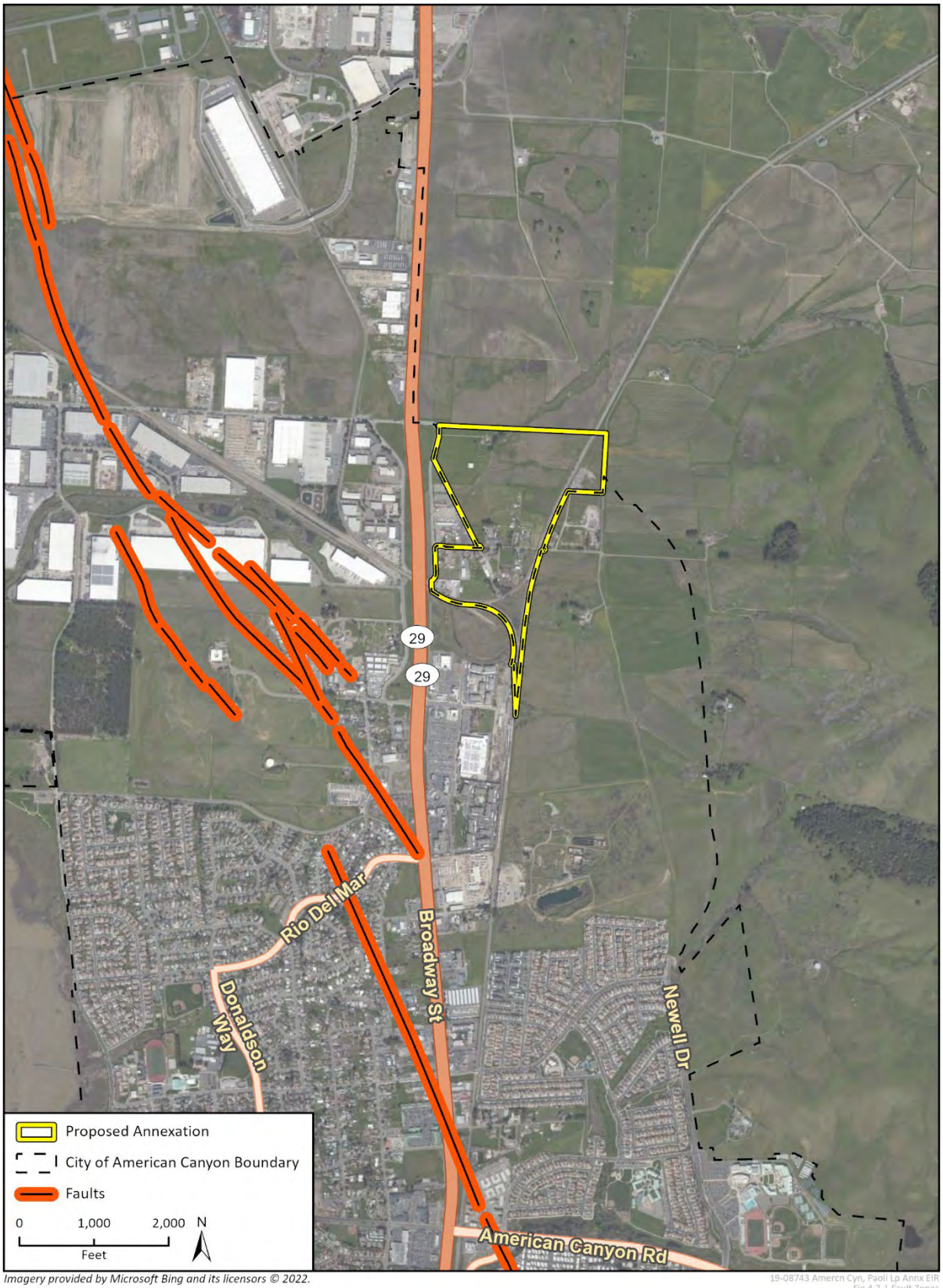
San Andreas Fault Zone

The San Andreas is the longest, most active fault in California. It is a right -lateral, strike -slip fault that extends over 700 miles (1,120 km) from the Gulf of California to Cape Mendocino in northern California. There is abundant seismic and geomorphic evidence of earthquake and fault rupture potential. Historically, the San Andreas fault has produced earthquakes more than magnitude 8. The fault can be divided into several discrete segments along its length based on differing seismic characteristics. The fault segment which influences the seismic exposure of the project site is referred to as the San Andreas (northern) segment (from Point Arena to Woodside). The creeping segment extends to the south, from Woodside to the Mojave segment of the fault. The San Andreas fault (northern) is located approximately 28 miles to the west of the project site, and the creeping segment about 89 miles to the south- southeast (City of American Canyon 1994).

Hayward Fault Zone

The Hayward fault extends from San Jose (south) to the San Pablo Bay (north). The fault is about 45 miles in length and is capable of a magnitude 7.5 earthquake. Active tight lateral creep is occurring on the Hayward fault. The Hayward fault is approximately 10 miles south of the project site (City of American Canyon 1994).

Figure 4.7-1 Fault Zones



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Fault data courtesy of California Geologic Society 2022.

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Fig 4.7-1 Fault Zones

Healdsburg Rodgers Creek Fault Zone

The Rodgers Creek fault trends approximately parallel to and lies about 20 miles east of the San Andreas (northern) fault. Rodgers Creek possess sag ponds, offset streams, and hillside bench features, similar to the San Andreas fault. Researcher have determined that this active fault is linked to the Healdsburg and Wallace Creek faults. The epicenter of Santa Rosa's 1969 earthquake was located on the Healdsburg fault. The earthquake had recorded magnitudes of 5.6 and 5.7. The Rodgers Creek fault is located approximately 10 miles to the west of the project site (City of American Canyon 1994).

Local Faults

West Napa Fault

The West Napa fault zone extends from approximately 5 miles north of the center of the City for 15 miles, to near Yountville. The West Napa fault is identified as an active fault and as an Alquist Priolo Special Study zone, from the Napa County Airport, along the east side of Oat Hill southeast to near the City boundary. The West Napa fault possesses evidence of strike-slip and right lateral fault movement. It is well defined south and east of the Napa River, by tonal contrasts and geomorphic features in the Holocene alluvium. Trenching studies have shown some evidence of Holocene activity from the airport and other sites. The fault appears capable of providing a 6.5 magnitude earthquake event (City of American Canyon 1994).

Cordelia and Green Valley Faults

The Cordelia and Green Valley faults trend north approximately 5 miles east of the project site and displays geomorphic evidence of recent fault movement, as well as earthquake concentrations. Evidence of recent and bedrock geologic features indicate that the Green Valley fault possesses steeply dipping right lateral fault features. These faults can produce a 6.75 to 7 magnitude earthquakes (City of American Canyon 1994).

Recent Seismic Hazards

Napa County has been subject to numerous seismic events, originating both on faults within the county and in other parts of the region. Six major Bay Area earthquakes have occurred since 1800 that have affected the county, and at least two of the faults that produced them run through or into the county. These earthquakes and the originating faults include the 1836 and 1868 earthquakes on the Hayward-Rogers Creek Fault, and the 1861 earthquake on the Calaveras Fault. Three earthquakes in 1838, 1906, and 1989 originated on the San Andreas fault, west of the county near San Francisco or to the south.

The South Napa Earthquake of 2014 occurred on August 24 at 3:30 am. The earthquake had a magnitude of 6, which is generally a fairly substantial magnitude for an earthquake, with the largest earthquakes in the world reaching up to a magnitude of 9. The South Napa earthquake resulted in various aftershocks of lower magnitudes for the next couple of months. This earthquake occurred on the West Napa Fault Zone. It also had recordings of subparallel fault traces. The West Napa Fault Zone's slip rate is believed to be approximately 0.2 millimeter to 1 millimeter per year, which is considered low for a slip rate. The slip rate refers to the rate at which the two faults are moving past one another. As for the South Napa earthquake, the slip is believed to be at a maximum of 1 meter. The depth of the South Napa earthquake was approximately 9.8 kilometers. The earthquake also caused 12.5 kilometers of surface rupture. According to the United States Geological Survey, the

2014 earthquake occurred because there was a rupture of a few of the small segments at the same time (UC Berkeley 2022).

The Yountville earthquake of 2000 that also occurred on the West Napa Fault Zone had a magnitude of 5. Unlike the South Napa Earthquake, the Yountville earthquake, which happened approximately 18 miles northwest of the project site did not rupture the surface (UC Berkeley 2022).

Ground Shaking

The major cause of structural damage from earthquakes is ground shaking. The intensity of ground motion expected at a particular site depends upon the magnitude of the earthquake, the distance to the epicenter, and the geology of the area between the epicenter and the property. Greater movement can be expected at sites located on poorly consolidated material such as alluvium, within close proximity to the ruptured fault, or in response to a seismic event of great magnitude. Historically, the City of American Canyon has been impacted by ground shaking during major earthquakes in the seismically active Northern California region and is likely to experience ground shaking from major earthquakes in the future.

Liquefaction

Liquefaction is a seismic phenomenon in which loose, saturated granular and non-plastic fine-grained soils lose their structure/strength when subjected to high-intensity ground shaking. Liquefaction occurs when three general conditions exist: 1) shallow groundwater within the top 50 feet of the ground surface; 2) low-density non-plastic soils; and 3) high-intensity ground motion. Liquefaction risk is moderate in the project site, as shown in Figure 4.7-2.

Landslides and Slope Stability

Seismic ground shaking can also result in landslides and other slope instability issues. Landslides occur when slopes become unstable, and masses of earth material move downslope. Landslides are usually rapid events, often triggered during periods of rainfall or by earthquakes. Mudslides and slumps are a shallower type of slope failure. They typically affect the upper surficial soils horizons rather than bedrock features. Usually, mudslides and slumps occur during or soon after periods of rainfall, but they can be triggered by seismic shaking. The area's most susceptible to landslides are shown on maps prepared by the California Division of Mines and Geology. Landslide susceptibility is grouped into classes ranging from zero to ten, which are calculated based upon a combination of rock strength and slope. Classes seven through ten indicate very high landslide susceptibility and include both very steep slopes in hard rocks and moderate to very steep slopes in weak rocks (CGS 2011). In addition, landslides occur where faults have fractured rock and along the base of slopes or cliffs where supporting material has been removed by stream or wave erosion, or human activities. Heavy rainfall, human actions, or earthquakes can trigger landslides. They may take the form of a slow continuous movement such as a slump or may move very rapidly as a semi-liquid mass such as a debris flow or avalanche. As shown in Figure 4.7-3 there is scattered landslide susceptibility in the eastern and southern portions of the project site.

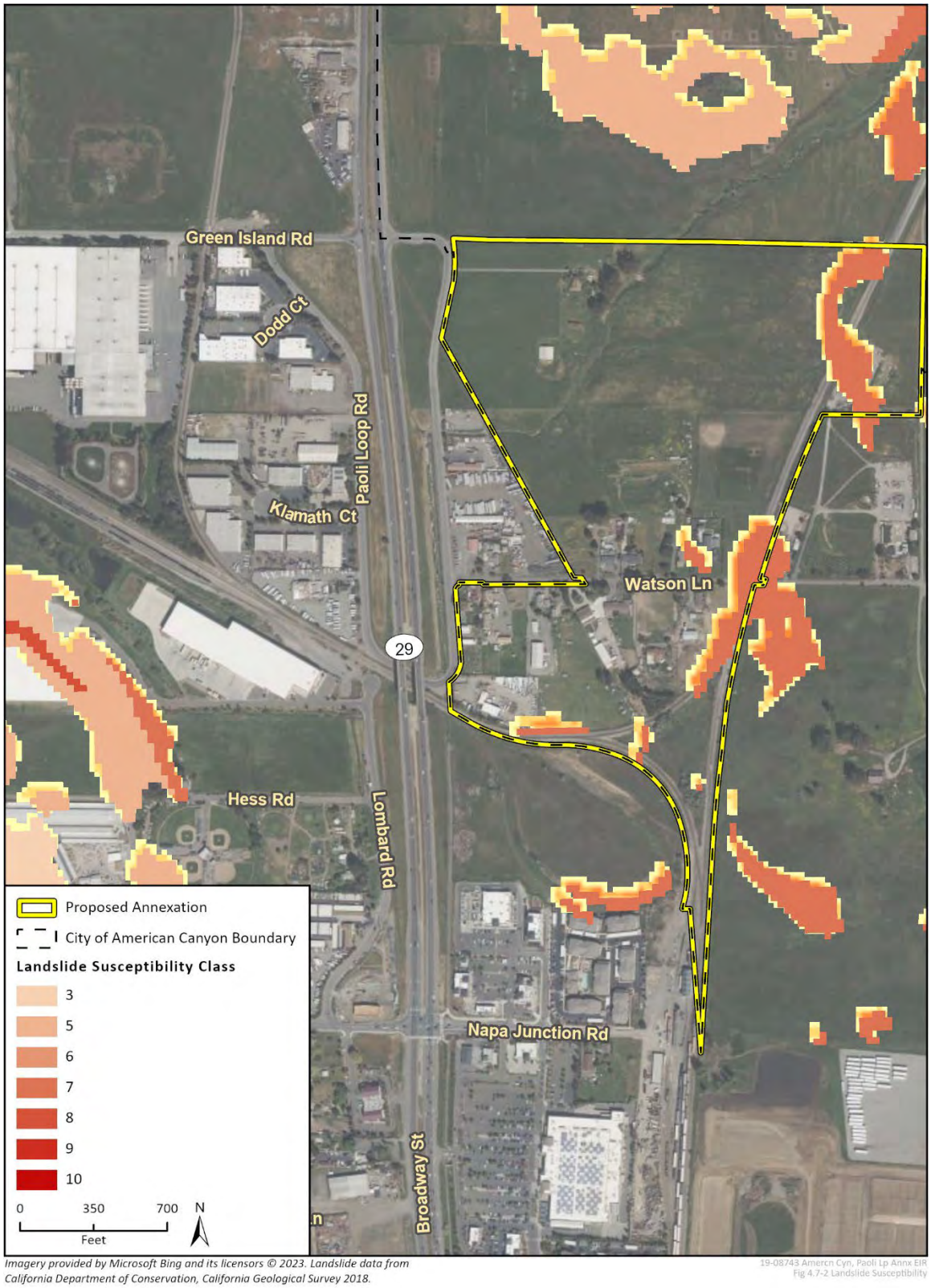
Figure 4.7-2 Liquefaction Risk



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Additional data provided by USGS, 2006

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Fig 4.7-3 Liquefaction Susceptibility

Figure 4.7-3 Landslide Zones[1]



[1] Note: Landslide susceptibility would be confirmed as part of the Geotechnical Report that will be developed for future development. As described in further detail in Impact GEO-2, a geotechnical report would be required by Mitigation Measure GEO-1.

Subsidence

Subsidence or settlement can occur from immediate settlement, consolidation, shrinkage of expansive soil, and liquefaction. Immediate settlement occurs when a load from a structure or placement of new fill material is applied, causing distortion in the underlying materials. This settlement occurs quickly and is typically complete after placement of the final load. Consolidation settlement occurs in saturated clay from the volume change caused by squeezing out water from the pore spaces. Consolidation occurs over a period and is followed by secondary compression, which is a continued change in void ratio (ratio of the volume of voids to volume of solids) under the continued application of the load. Soils tend to settle at different rates and by varying amounts depending on the load weight or changes in properties over an area, which is referred to as differential settlement. Areas underlain by soft sediments or undocumented fills are most prone to settlement.

Expansive Soils

Expansive soils swell with increases in moisture content and shrink with decreases in moisture content. These soils usually contain high clay content. Foundations for structures constructed on expansive soils require special design considerations. Because expansive soils can expand when wet and shrink when dry, they can cause foundations, basement walls, and floors to crack, causing substantial structural damage. As such, structural failure due to expansive soils near the ground surface is a potential hazard. Expansive soils can be found throughout the project site.

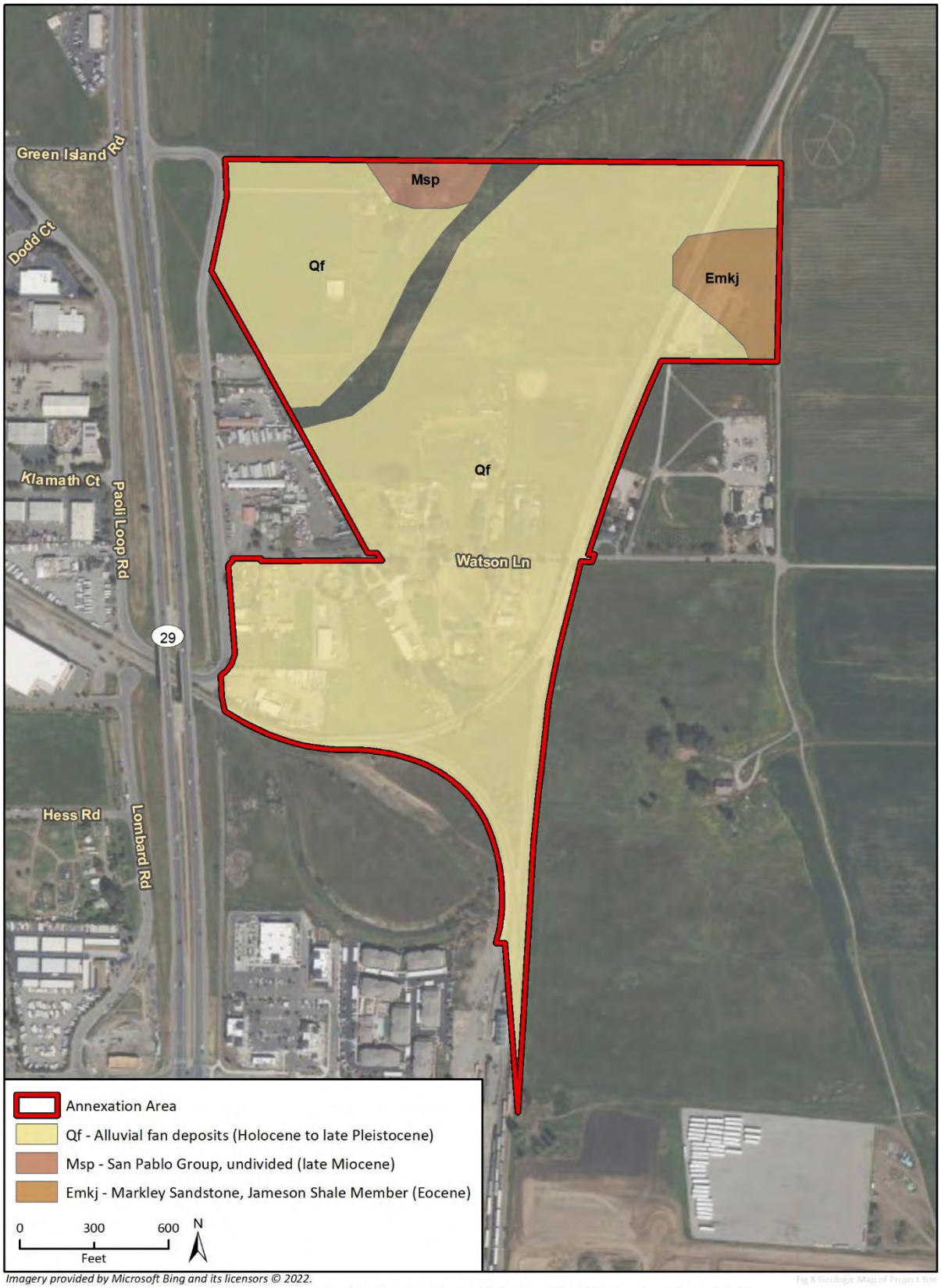
Soil Erosion

Erosion refers to the removal of soil by water or wind. Factors that influence erosion include the amount of rainfall and wind, the length and steepness of the slope, and the amount and type of vegetative cover. Depending on how well protected the soil is from these forces, the erosion process can be very slow or rapid. Properties of the soil also contribute to how likely or unlikely it is to erode. Removal of natural or man-made protection can result in substantial soil erosion and excessive sedimentation and pollution problems in streams, lakes, and estuaries through a process called siltation.

Paleontological Resources

Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows, etc.). Paleontological resources are not found in “soil” but are contained within the geologic deposits or bedrock that underlies the soil layer. Typically, fossils are greater than 5,000 years old (i.e., older than middle Holocene in age) and are usually preserved in sedimentary rocks. Although rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions (Society of Vertebrate Paleontology [SVP] 2010). Fossils occur in a non-continuous and often unpredictable distribution within some sedimentary units, and the potential for fossils to occur within sedimentary units depends on several factors. It is possible to evaluate the potential for geologic units to contain scientifically important paleontological resources. The geology of the region was mapped at a scale of 1:100,000 by Wagner and Gutierrez (2017), who identified three geologic units underlying the project site: alluvial fan deposits, San Pablo Group (undivided), and the Jameson Shale Member of the Markley Sandstone (Figure 4.7-4).

Figure 4.7-4 Geologic Map of the Annexation Area



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Additional data provided by Wagner and Gutierrez "Preliminary Geologic Map of the Napa and Bodega Bay 30' x 60' Quadrangles, California," 2017.

According to the SVP (2010) classification system, geologic units can be assigned a high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources. Following the literature review, a paleontological sensitivity classification was assigned to each geologic unit mapped within the project site. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. Overall, as described in further detail below, all three geologic units underlying the project site have a high paleontological sensitivity.

Alluvial Fan Deposits

Alluvial fan deposits underlie most of the project site (Figure 4.7-4). Alluvial fan deposits consist of relatively undissected surfaces of gravel, sand, silt, and clay, that is Holocene to late Pleistocene in age (Wagner and Gutierrez 2017). Some portions of alluvial fan deposits might be too young (i.e., less than 5,000 years old) to preserve paleontological resources, but early Holocene and late Pleistocene alluvial sediments are old enough to preserve such resources. Pleistocene alluvial sediments have produced significant paleontological resources in the northern San Francisco Bay Area (i.e., Marin, Napa, Solano, and Sonoma Counties), including taxa such as mammoth (*Mammuthus*), mastodon (*Mammut*), horse (*Equus*), bison (*Bison*), sloth (*Paramylodon*), rodents (Rodentia), and turtles (Testudines) (Jefferson 2010; Paleobiology Database [PBDB] 2022; Savage 1951; UCMP 2022). Therefore, alluvial fan deposits have high paleontological sensitivity.

San Pablo Group

The San Pablo Group underlies the northern part of the project site (Figure 4.7-4). The San Pablo Group consists of brown, gray, and white, shale, sandstone, and conglomerate that was deposited during the late Miocene in a marine setting (Wagner and Gutierrez 2017). In some areas, the San Pablo Group is split into the Briones Sandstone, Cierbo Sandstone, and Neroly Sandstone. Many significant terrestrial and marine fossils have been discovered from the San Pablo Group and its constituent formations including canids (*Osteoborus*), horses (*Nannippus*, *Neohipparion*, *Pliohippus*), marine mammals (*Desmostylus*), rodents, turtles, sharks, and invertebrates (Grant and Stevenson 1948; PBDB 2022; Stirton 1939; UCMP 2022). Given this fossil-producing history, the San Pablo Group has high paleontological sensitivity.

Jameson Shale Member of the Markley Sandstone

The Jameson Shale Member of the Markley Sandstone underlies the northeastern part of the project site (Figure 4.7-4). The Jameson Shale Member of the Markley Sandstone consists of brown, laminated, siliceous mudstone (Wagner and Gutierrez 2017). The Markley Sandstone has produced bony fish (Osteichthyes), gastropod, bivalve, and microfossils from both shale (i.e., Jameson Shale Member) and sandstone beds (Clark 1938; PBDB 2022; UCMP 2022). Given this fossil-producing history, the Jameson Shale Member of the Markley Sandstone has high paleontological sensitivity.

4.7.2 Regulatory Setting

a. Federal Regulations

U.S. Geological Survey Landslide Hazard Program

The USGS created the Landslide Hazard Program in the mid-1970s; the primary objective of the program is to reduce long-term losses from landslide hazards by improving our understanding of the

causes of ground failure and suggesting mitigation strategies. The federal government takes the lead role in funding and conducting this research, whereas the reduction of losses due to geologic hazards is primarily a State and local responsibility. In Napa County, plans and programs designed for the protection of life and property are coordinated by the Napa County Office of Emergency Services.

Clean Water Act

Congress enacted the Clean Water Act (CWA), formerly the Federal Water Pollution Control Act of 1972, with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is administered by the California State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards (RWQCB). The City of American Canyon is located within the San Francisco Bay RWQCB jurisdiction.

Projects within the City and Napa County that disturb more than one acre are required to obtain NPDES coverage under the California General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit). The Construction General Permit (Order 2009-0009, as amended by Orders 2010-0014-DWQ and 2012-006-DWQ) requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) describing best management practices (BMPs) that the discharger would use to prevent and retain storm water runoff and to prevent soil erosion.

Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act)

The Stafford Act (1988) provides the legal basis for state, tribal, and local governments to undertake risk-based approaches to reducing natural hazard risks through mitigation planning. Specifically, the Stafford Act requires state, tribal, and local governments to develop and adopt Federal Emergency Management Agency (FEMA)-approved hazard mitigation plans as a condition for receiving certain types of non-emergency disaster assistance. The Act also authorizes grants for pre- and post-disaster projects and planning.

Disaster Mitigation Act of 2000

Congress passed the Disaster Mitigation Act of 2000 to amend the Robert T. Stafford Disaster Relief and Emergency Assistance Act by invoking new and revitalized approaches to mitigation planning. Section 322 of the Act emphasized the need for state and local government entities to closely coordinate on mitigation planning activities and makes the development of a hazard mitigation plan a specific eligibility requirement for local governments applying for federal mitigation grant funds. Communities with an adopted and federally approved hazard mitigation plan thereby become pre-positioned and more apt to receive available mitigation funds before and after the next declared disaster.

To implement the new Stafford Act provisions, FEMA published requirements and procedures for local hazard mitigation plans in the Code of Federal Regulations (CFR) at Title 44, Chapter 1, Part 201.6. These regulations specify minimum standards for developing, updating, and submitting local hazard mitigation plans for agency review and approval at least once every five years.

National Historic Preservation Act of 1966 (16 USC 470)

The National Historic Preservation Act (NHPA) applies to paleontological resources that are found in culturally related contexts; such related paleontological resources qualify as cultural resources. Consequently, recovery and treatment protocols included in a project-specific Cultural Resources Management Plan should be followed for discoveries of paleontological resources in culturally related contexts.

Paleontological Resources Preservation Act of 2009

The Paleontological Resources Preservation Act (PRPA) is part of the Omnibus Public Land Management Act of 2009 (PL 111-011 Subtitle D). This act directs the Secretary of the Interior or the Secretary of Agriculture to manage and protect paleontological resources on federal land and to develop plans for inventorying, monitoring, and deriving the scientific and educational use of such resources. It prohibits the removal of paleontological resources from federal land without a permit issued under this act, establishes penalties for violation of this act, and creates a program to increase public awareness about these resources. A paleontological resource use permit is required to collect paleontological resources of scientific interest. The act requires that paleontological resources collected under a permit remain United States property, preserved for the public in an approved repository, and available for scientific research and public education. The act also requires that the nature and location of paleontological resources on public lands remain confidential as a means of protecting the resources from theft and vandalism. Section 6301 of the PRPA and Departmental Proposed Rule at 43 CFR Part 49 define a paleontological resource as:

> Any fossilized remains, traces, or imprints of organisms, preserved in or on the earth's crust, that are of paleontological interest and that provide information about the history of life on earth, except that the term does not include— (A) any materials associated with an archaeological resource… (B) any cultural item… (3) Resources determined in writing by the authorized officer to lack paleontological interest or not provide information about the history of life on earth, based on scientific and other management considerations.

Consistent with the definition of a paleontological resource under the PRPA, those paleontological resources that lack scientific interest (e.g., resources that are ubiquitous or do not provide information about the history of life on earth) are considered scientifically non-significant fossils.

b. State Regulations

California Building Code

The California Building Code (CBC), Title 24, Part 2 provides building codes and standards for the design and construction of structures in California. The 2016 CBC is based on the 2015 International Building Code, with the addition of more extensive structural seismic provisions. Chapter 16 of the CBC contains definitions of seismic sources and the procedure used to calculate seismic forces on structures. The CBC requires addressing soil-related hazards, such as treating hazardous soil conditions involving removal, proper fill selection, and compaction. In cases where soil remediation is not feasible, the CBC requires structural reinforcement of foundations to resist the forces of expansive soils. The CBC includes requirements for geotechnical investigations (such as inclusion of a soil report), excavation, grading, and fills, load-bearing of soils, as well as foundations, shallow foundations, and deep foundations (Chapter 18). Chapter 18 also describes analysis of expansive

soils, including conducting soil tests in areas likely to contain expansive soils. Soils are considered expansive if either items one through three are met or item four is met:

1. Plasticity index (PI) of 15 or greater, determined in accordance with ASTM D 4318;
2. More than 10 percent of the soil particles pass a No. 200 sieve (75 micrometers), determined in accordance with ASTM D 422;
3. More than 10 percent of the soil particles are less than 5 micrometers in size, determined in accordance with ASTM D 422; and
4. Expansion index greater than 20, determined in accordance with ASTM D 4829.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 was passed into law following the destructive February 9, 1971 magnitude 6.6 San Fernando earthquake. The Act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the Act is to ensure public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep. This Act groups faults into categories of active, potentially active, and inactive. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive.

The Alquist-Priolo Earthquake Fault Zoning Act regulates development near the surface traces of active faults to mitigate the hazard of surface fault rupture. Essentially, this Act contains two requirements: (1) it prohibits the location of most structures for human occupancy across the trace of active faults; and (2) it establishes Earthquake Fault Zones and requires geologic/seismic studies of most proposed development within 50 feet of the zone. The Earthquake Fault Zones are delineated and defined by the State Geologist and identify areas where potential surface rupture along a fault could occur. According to CGS, there are no Earthquake Fault Zones in the project site (CGS 2022).

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (the Act) of 1990 was passed into law following the destructive October 17, 1989, magnitude 6.9 Loma Prieta earthquake. The Act directs the CGS to delineate Seismic Hazard Zones. The purpose of the Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards, such as liquefaction, landslides, amplified ground shaking, and inundation by tsunami or seiche. Cities, counties, and State agencies are directed to use seismic hazard zone maps developed by CGS in their land-use planning and permitting processes. The Act requires that site-specific geotechnical investigations be performed prior to permitting most urban development projects within seismic hazard zones. CGS maintains these required maps. The project site is not in a CGS-mapped seismic hazard zone.

California Environmental Quality Act – Paleontological Resources

Paleontological resources are protected under CEQA, which states in part a project will “normally” have a significant effect on the environment if it, among other things, will disrupt or adversely affect a paleontological site except as part of a scientific study. Specifically, in Section VII(f) of Appendix G of the CEQA Guidelines, the Environmental Checklist Form, the question is posed thus: “Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic

feature." To determine the uniqueness of a given paleontological resource, it must first be identified or recovered (i.e., salvaged). Therefore, CEQA mandates mitigation of adverse impacts, to the extent practicable, to paleontological resources.

CEQA does not define "a unique paleontological resource or site." However, the Society of Vertebrate Paleontology (SVP) has defined a "significant paleontological resource" in the context of environmental review as follows:

> Fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are typically to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years) (SVP 2010).

The loss of paleontological resources meeting the criteria outlined above (i.e., a significant paleontological resource) would be a significant impact under CEQA, and the CEQA lead agency is responsible for ensuring that impacts to paleontological resources are mitigated, where practicable, in compliance with CEQA and other applicable statutes.

California Public Resources Code

Section 5097.5 of the Public Resources Code states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Here "public lands" means those owned by, or under the jurisdiction of, the state or a city, county, district, authority, or public corporation, or an agency thereof. Consequently, public agencies are required to comply with Public Resources Code Section 5097.5 for their own activities, including construction and maintenance, and for permit actions (e.g., encroachment permits) undertaken by others.

c. Local Regulations

Napa County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

In 2020, Napa County prepared an updated Multi-Jurisdictional Hazard Mitigation Plan (HMP) to guide County and city officials and special districts managers in protecting the people and property within the County from the effects of natural disasters and hazards events. The HMP provides an explanation of prevalent hazards within the County and how hazards may affect the County and participating cities and special districts differently based upon proximities to natural hazards. The HMP also identifies risks to vulnerable assets, both people and property. Most importantly, the mitigation strategy presented in the HMP responds to the identified vulnerabilities within each community and provides prescriptions or actions to achieve the greatest risk reduction based upon available resources (Napa County 2020).

American Canyon General Plan

The current City of American Canyon General Plan sets forth the following guiding and implementing policies relevant to geology, soils, and seismicity:

Goal 9: Reduce the potential level of death, injury, property damage, economic and social dislocation (i.e., business closures and homelessness due to structural damage) and disruption of vital services that could result from earthquake damage.

Goal 9C: Ensure that seismic, geologic, and soils hazards that might affect areas designated for human use or habitation are properly mitigated or avoided entirely prior to development.

Objective 9.1: Protect life, ensure public safety, substantially reduce the damage to and ensure the orderly evacuation of building occupants following a seismic event.

> **Policy 9.1.1:** Promote the collection of relevant data on fault location and the history of fault displacement as a basis for future refinement of fault zone policies and development standards. Particular attention should be paid to the West Napa Fault and should be evaluated in conjunction with proposed development. Based on predevelopment studies, limitations on new development shall be imposed if necessary in the identified fault areas.
>
> **Policy 9.1.2:** Implement mandatory development restrictions and investigation requirements (by the state, under the Alquist-Priolo Act, or by the City) on that portion of the West Napa fault zone located within American Canyon and its Planning Area.
>
> **Policy 9.1.3:** Require that any building intended to have occupancy be located at least 50 feet from either side of an active or potentially active fault.

Objective 9.2: Protect health and life safety, and reduce the level of potential property damage from the adverse effects of strong seismic ground shaking by implementing effective, state-of-the-art standards for seismic design of structures in the City.

> **Policy 9.2.1:** Require that development be designed in accordance with seismic requirements of the Uniform Building Code.

Objective 9.3: Protect life and essential lifelines (e.g., gas, electricity, water), reduce the risk of property damage due to liquefaction, and promote the collection of more complete information on liquefaction susceptibility throughout the Planning Area.

> **Policy 9.3.1:** Avoid development in areas with known liquefaction risk. If these areas cannot be avoided, require a qualified geologist, hydrologist, or civil engineer to determine the liquefaction potential at proposed development sites.
>
> **Policy 9.3.2:** Require the submittal of liquefaction mitigation plans for proposed developments located in areas determined to have a high level of liquefaction risk.
>
> **Policy 9.3.3:** Require that natural gas, electric, water, sewer and communication systems located in areas of liquefaction risk be designed to mitigate potential hazards.

Objective 9.4: Protect life, ensure safety, and substantially reduce the potential level of property damage from landslides, mudflows, slope failures and soil hazards. Promote the collection and utilization of more complete information on slope instability potential throughout the City and Planning Area.

Policy 9.4.1: Require the determination of the landslide, slope, instability, and erosion potential of all proposed development sites with a grade of 10 percent or greater and incorporate pertinent measures in the project design to mitigate this potential.

Policy 9.4.2: Require the determination of liquefaction (lateral spreading) potential for all development sites in coarse and medium-grained alluvium areas (Qhbm, Qham, and Qhac) of slopes with grades of less than 15 percent and incorporate pertinent measures in the project design to mitigate this potential.

Policy 9.4.4: Require an assessment of potential damage to essential lifelines (e.g., gas, water, electric, communication, sewer) due to landslides and implement appropriate mitigation measures.

Policy 9.4.5: Review proposals for new development and expansion of existing development in areas that are susceptible to collapsible or expansive soils and require adequate mitigation of these hazards.

Policy 9.4.6: Require that proposed developments in landslide hazard areas submit information regarding pertinent conditions prepared by a qualified geologist or civil engineer.

Policy 9.4.7: Require that proposed developments in landslide hazard areas submit plans to adequately stabilize slopes and unstable soils onsite and prevent impacts on adjacent properties.

Policy 9.4.8: Encourage the use of landscape materials in areas of landslide hazard and unstable soils that promote stability.

American Canyon Municipal Code

Various portions of the American Canyon Municipal Code also address geologic and soil conditions. Relevant sections include:

- Chapter 16.02 adopts the 2019 California Building Code. All new construction within the city limits is required to adhere to seismic safety standards. The City of American Canyon Community Development Department is responsible for the administration and enforcement of the Building Code.
- Chapters 16.12.150, 16.12.210, and 16.12.230 provide specifications for slabs, footings, and foundations in areas of highly expansive soils.
- Chapter 16.14.090 requires the preparation of a soil management report to address soil attributes includes identification of thin, eroded, or erosion prone soils.
- Chapter 16.14.120 requires preparation of a grading plan designed to minimize soil erosion.
- Chapter 18.22.025 requires subdivision maps to include a statement and report on soil tests by a registered engineer and a geological report in areas so determined by the City engineer where there are known geologic hazards.

4.7.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on geology and soils if it would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
   a. 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;
   b. Strong seismic ground shaking;
   c. Seismic-related ground failure, including liquefaction;
   d. 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 Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirectly 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; or
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Methodology

Impacts to geology and soils was determined by reviewing the existing setting for the project site, as summarized in Section 4.7.1, *Setting*, and analyzing the project's potential to result in substantial adverse effects related to geological hazards. The paleontological sensitivity of the geologic units that underlie the project site were evaluated to assess the project's potential for significant impacts to scientifically important paleontological resources. The analysis was based on the results of a review of existing information in the scientific literature regarding known fossils within geologic units mapped in the annexation area. According to the SVP (2010) classification system, geologic units can be assigned a high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources. Following the literature review, a paleontological sensitivity classification was assigned to each geologic unit mapped within the project site. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. The analysis of impacts focuses on unspecified future construction that could occur in the project site relative to geologic units because paleontological resources would only be impacted during construction-related ground disturbing activities.

b. Project Impacts and Mitigation Measures

Threshold 1a:	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?

Impact GEO-1 THE PROJECT WOULD NOT BE SUBJECT TO RUPTURE OF A KNOWN EARTHQUAKE FAULT. THERE WOULD BE NO IMPACT.

As shown in Figure 4.7-1, there are no Alquist Priolo Earthquake Fault Zones in the project site. As such, the project would not directly or indirectly cause substantial adverse effects involving rupture of a known earthquake fault. There would be no impacts related to rupture of a known earthquake fault.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 1b:	Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?
Threshold 1c:	Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?
Threshold 1d:	Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Impact GEO-2 FOLLOWING PROJECT IMPLEMENTATION, FUTURE STRUCTURES, ROADWAYS, AND OCCUPANTS COULD BE LOCATED IN AREAS THAT WOULD BE EXPOSED TO SEISMIC EVENTS, INCLUDING GROUND SHAKING, LIQUEFACTION, AND LANDSLIDES, CREATING THE RISK FOR DAMAGE OR INJURY. COMPLIANCE WITH THE CBC, THE CITY'S MUNICIPAL CODE, AND MITIGATION MEASURE GEO-1 WOULD MINIMIZE GROUND SHAKING, LIQUEFACTION, AND LANDSLIDE HAZARDS. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Future commercial, industrial, and visitor-serving/hotel uses would introduce structures, workers, and visitors to the project site. These structures and people would be potentially exposed to the effects of seismic ground shaking, liquefaction, and landslides from local and regional earthquakes. Structures built in landslide zones would be exposed to an existing risk of landslide or, if improperly constructed could exacerbate existing landslide conditions, particularly in the areas shown in Figure 4.7-3, which are vulnerable to landslide hazard. New structures throughout the project site would also be exposed to moderate susceptibility risk to liquefaction in the event of a seismic event. Additionally, the Newell Drive extension would occur in a landslide and liquefaction zone and users could be exposed to the effects of seismic ground shaking.

Future structures and roadways in the project site would follow current seismic standards to better withstand damage from strong ground shaking. Potential structural damage and the exposure of people to the risk of injury or death from structural failure would be minimized by required compliance with CBC engineering design and construction measures. Foundations and other structural support features would be required to be designed to resist or absorb damaging forces from strong ground shaking and liquefaction.

Future grading within the project site would create artificial slopes that could fail during strong seismic shaking if improperly constructed. However, compliance with CBC requirements (as codified in American Canyon Municipal Code Chapter 16.02) requires structures be designed to accommodate ground accelerations expected from known active faults. As required under Chapter 18 of the CBC and Chapter 18.22.025 of the American Canyon Municipal Code, geotechnical investigations prepared by a California registered Geotechnical Engineer or Engineering Geologist would be required for the project site and would include final design parameters for the walls, foundations, foundation slabs, and surrounding related improvements (utilities, roadways, parking lots and sidewalks). A geotechnical investigation would likewise be required for the Newell Drive Extension. The final design level geotechnical report would be reviewed and approved by the City Building Department prior to issuance of a building permit ensuring that seismic design requirements are incorporated into construction specifications.

Further reducing impacts, American Canyon, Municipal Code Chapter 16.14 requires preparation of a soil management plan and grading plan in water-efficient landscaped areas. Compliance with provisions of American Canyon Municipal Code Chapter 16.14 would reduce potential impacts related to seismic hazards ground failure on graded or constructed slopes within landscaped areas.

Furthermore, Mitigation Measure GEO-1 would require the applicant to submit a Geotechnical Investigation to the City of American Canyon for review and approval. Standard soil engineering and building design practices would include standards for foundations and structural support of buildings to ensure that they withstand strong ground shaking during a seismic event and avoid the exacerbation of exposure to such hazards. The implementation of this mitigation measure would ensure that the project is not exposed to strong ground shaking hazards, liquefaction, and landslides, and would reduce potentially significant impacts to a less than significant level.

Mitigation Measure

GEO-1 Geotechnical Investigation

Prior to the issuance of improvement plans and building permits, the project applicant shall submit a design-level Geotechnical Investigation to the City of American Canyon for review and approval. The investigation shall be prepared by a qualified engineer and identify grading and building practices necessary to achieve compliance with the latest adopted edition of the California Building Standards Code (CBC) geologic, soils, and seismic requirements, including abatement of expansive soil conditions. The report shall also determine the final design parameters for walls, foundations, foundation slabs, and surrounding related improvements (e.g., utilities roadways, parking lots, and sidewalks). The measures identified in the approved report shall be incorporated into the project plans and all applicable construction related permits.

Significance After Mitigation

Implementation of Mitigation Measure GEO-1 would reduce impacts related to strong seismic ground shaking, liquefaction, and landslides. With implementation of Mitigation Measure GEO-1, impacts would be less than significant.

Threshold 2: Would the project result in substantial soil erosion or the loss of topsoil?

Impact GEO-3 THE PROJECT COULD RESULT IN SOIL EROSION OR THE LOSS OF TOPSOIL. ADHERENCE TO PERMIT REQUIREMENTS AND MITIGATION MEASURE HYD-1 WOULD REDUCE THIS IMPACT TO A LESS THAN SIGNIFICANT LEVEL. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

There are no specific development plans within the project site, but there are pre-zoned areas that would or could eventually be developed with commercial, industrial, and visitor-serving/hotel uses, as well as construction of the Newell Drive extension. Construction of these uses and roadways would involve activities such as stockpiling, grading, excavation, paving, and other earth-disturbing activities. Loose and disturbed soils are more prone to erosion and loss of topsoil by wind and water. Therefore, the project could result in soil erosion or loss of topsoil.

Construction activities that disturb one or more acres of land are subject to the Construction General Permit. Compliance with the permit requires each qualifying development project to file a Notice of Intent with the SWRCB. Permit conditions require preparation of a SWPPP, which must describe the site, the facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-storm water management controls. As described in Section 4.10, *Hydrology and Water Quality*, development in the project site would be subject to the applicable NPDES Municipal Regional Stormwater Permit (Order R4-2021-0105; NPDES Permit No. CAS000004), which requires measures to reduce and eliminate stormwater pollutants, installation of appropriate BMPs to control stormwater runoff from construction sites, and that grading and drainage permits be obtained prior to construction. Grading and drainage plans accompanying the permit application must include BMPs for erosion prevention and sediment control, fencing at waterways and in sensitive areas, and limitation of disturbed areas. Other examples of BMPs typical of a SWPPP include covering soil stockpiles during construction and putting temporary barriers around storm-drain inlets. The permit applications must also demonstrate compliance with NPDES permit provisions. Mandatory compliance with these permit requirements would reduce soil erosion and the potential for soil loss.

Furthermore, Mitigation Measure HYD-1 would require the implementation of stormwater quality control measures during construction activities to prevent pollutants from entering downstream waterways. Standard stormwater pollution prevention measures would include implementing structural and nonstructural control measures within and around disturbed areas to prevent soil and pollutants from leaving the project site. Impacts would be less than significant. Implementation of Mitigation Measure HYD-1, as well as regulatory requirements, would minimize potentially significant erosions impacts to a less than significant level.

Mitigation Measures

Mitigation Measure HYD-1 (see Impact HYD-1 in Section 4.10, *Hydrology and Water Quality*).

Significance After Mitigation

Implementation of Mitigation Measure HYD-1 would ensure that erosion impacts are minimized. With implementation of Mitigation Measure HYD-1, impacts would be less than significant.

Threshold 3:	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?
Threshold 4:	Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Impact GEO-4 THE PROJECT COULD RESULT IN ON- OR OFF-SITE LANDSLIDE, LATERAL SPREADING, SUBSIDENCE, LIQUEFACTION, OR COLLAPSE. COMPLIANCE WITH CBC REQUIREMENTS WOULD REDUCE HAZARDS RESULTING FROM EXPANSIVE SOILS AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

There are no specific development plans within the project site, but there are pre-zoned areas that would or could eventually be developed with commercial, industrial, and visitor-serving/hotel uses, in addition to the Newell Drive extension. Future structures associated with these uses and the Newell Drive extension could be located on expansive soils and be subject to damage (see Section 4.7.1, *Setting*). The project site has minimal landslide susceptibility in the eastern and southern sections, but the entirety of the area is in moderate susceptibility liquefaction zones. The adverse effects of expansive soils can be avoided through proper subsoil preparation, drainage, and foundation design. To design an adequate foundation or roadway, it must be determined if the site contains expansive soils through appropriate soil sampling and laboratory soils testing. Expansive soils are identified through expansion tests of samples of soil or rock, or by means of the interpretation of a standard soils testing procedure. The CBC includes requirements to address soil-related hazards, including testing to identify expansive soils and design specifications where structures are to be constructed on expansive soils. CBC Chapter 18 provides requirements for geotechnical reports to address soils that are found incapable of supporting structures or roadways. Placement of structures or roads can represent new loadings on natural soils or artificial fills that could compress over time.

The required geotechnical report for new development would determine the susceptibility of the project site to settlement from compressible soils and prescribe appropriate engineering techniques for reducing its effects. Typical measures to treat expansive soil conditions involve removal, proper fill selection, and compaction. In cases where soil remediation is not feasible, the CBC requires structural reinforcement of foundations to resist the forces of expansive soils.

The design-level Geotechnical Investigation, which would be required by Mitigation Measure GEO-1, would outline standard grading and soil engineering practices to abate potential hazards. Standard grading and soil engineering practices would include replacing native soils with engineered fill that would not possess expansive characteristics. These grading and soil engineering practices would ensure that the project does not exacerbate the existing expansive soil conditions. Implementation of Mitigation Measure GEO-1 would minimize potentially significant impacts related to landslide, lateral spreading, subsidence, liquefaction, or collapse, to a less than significant level.

Mitigation Measures

Mitigation Measure GEO-1 (see Impact GEO-2).

Significance After Mitigation

Implementation of Mitigation Measure GEO-1 would reduce impacts related to landslide, lateral spreading, subsidence, liquefaction, or collapse. With implementation of Mitigation Measure GEO-1, impacts would be less than significant.

Threshold 5:	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?

Impact GEO-5 THE PROJECT WOULD BE SERVED BY SANITATION INFRASTRUCTURE. NO SEPTIC TANKS OR ALTERNATIVE WASTEWATER DISPOSAL SYSTEMS WOULD BE USED; THEREFORE, THERE WOULD BE NO IMPACT.

There exists development and associated wastewater utilities in the southern portion of the project site; however, the northern portion of the project site where development would occur is undeveloped and does not have connections to wastewater facilities. Future development at the project site would extend existing sewer infrastructure to serve the site consistent with Municipal Code Section 14.12.160. No septic tanks or alternative wastewater disposal systems would be installed for future developments. As such, there would be no impact.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 6:	Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Impact GEO-6 DEVELOPMENT FACILITATED BY THE PROJECT HAS THE POTENTIAL TO IMPACT PALEONTOLOGICAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units. As described in the *Paleontological Resources* subsection of Section 4.7.1, *Setting,* there are three geologic units on the project site (alluvial fan deposits, the San Pablo Group, and the Jameson Shale Member of the Markley Sandstone) and all three have high paleontological sensitivity.

Potentially significant impacts to paleontological resources can only be determined once a specific project has been proposed because the effects are highly dependent on both the individual project site conditions and the characteristics of the proposed ground-disturbing activity. Ground disturbing activities in areas of high paleontological sensitivity and particularly in areas that have not been previously developed with urban uses have the potential to damage or destroy paleontological resources that may be present on or below the ground surface. Ground disturbance associated with future development, as well as construction of the Newell Drive Extension could result in damage to or destruction of fossils, resulting in a potentially significant impact. Mitigation Measure GEO-2 would require that future projects be assessed for its potential to significantly impact paleontological resources.

Mitigation Measure

GEO-2 Retention of Qualified Professional Paleontologist

Prior to submittal of a discretionary development application, the project applicant shall retain a Qualified Professional Paleontologist, as defined by SVP (2010), to determine the project's potential to significantly impact paleontological resources according to SVP (2010) standards. If necessary, the Qualified Professional Paleontologist shall direct mitigation measures to reduce potential impacts to paleontological resources to a less than significant level. The City shall review and approve the Qualified Professional Paleontologist's findings and recommendation. All recommendations shall be incorporated into the project plans prior to issuance of a grading permit.

Significance After Mitigation

Mitigation Measure GEO-2 would reduce potential impacts to paleontological resources to a less than significant level.

4.7.4 Cumulative Impacts

The geographic scope of the cumulative geology and soils analysis is the City of American Canyon and the surrounding vicinity. Adverse effects associated with many geology and soils impacts tend to be localized; therefore, an area generally within a 0.25-mile radius would be the area most affected by activities in combination with the project. In addition, adverse effects associated with paleontological resource impacts tend to be localized, because the integrity of any given resource depends on what occurs only in the immediate vicinity around that resource, such as disruption of soils.

Because the project would have no impact related to rupture of a known earthquake fault or installation of alternative wastewater systems, the project would not contribute to a cumulative impact. Therefore, cumulative impacts related to rupture of a known earthquake fault or installation of alternative wastewater systems are not discussed further.

Cumulative projects have the potential to experience strong to violent ground shaking from earthquakes. Cumulative projects would be exposed to the same ground shaking hazards and likewise would be subject to the same requirements. All cumulative projects would adhere to the provisions of the CBC; American Canyon Municipal Code; and Napa County Municipal Code, which would reduce the potential hazards associated with seismic ground shaking and ground failure. Therefore, the cumulative impact related to seismic-related hazards would be less than significant.

Soil conditions associated with the project, such as expansive soils or unstable geologic units or soils that may result in impacts to erosion, landslide, lateral spreading, subsidence, liquefaction, or collapse, are specific to the project site and generally do not contribute to a cumulative effect. Some or all other cumulative projects may have similar conditions, but they also would not contribute to a general geologic or soil cumulative effect. The project would be subject to the requirements in the American Canyon Municipal Code and CBC, which would reduce soil-related hazard impacts. Other current and future development/redevelopment projects in the City and vicinity would similarly be required to adhere to standards and practices that include stringent geologic and soil-related hazard mitigations. Therefore, the cumulative impact related to soil-related hazards would be less than significant.

Construction activities associated with development of cumulative plans and projects in or within the vicinity of the project site may have the potential to encounter undiscovered paleontological

resources. Cumulative development would be required to minimize impacts through compliance with applicable federal and State laws governing geologic resources and paleontological resources. The closest and largest cumulative project would be the Watson Ranch Project, which includes mitigation for unanticipated discovery of paleontological resources (City of American Canyon 2018). Nonetheless, it is possible that geologic resources and paleontological resources are present on the cumulative project sites and could be encountered by subsurface earthwork activities. Given the potential for cumulative construction-related soil disruption, cumulative projects could result in a potentially significant cumulative impact related to unique geologic and paleontological resources. However, the project itself would not contribute considerably to this cumulative impact because implementation of Mitigation Measure GEO-2 would ensure that undiscovered geologic and paleontological resources are not adversely affected by project-related construction activities and would prevent the destruction or degradation of potentially significant paleontological resources.

4.8 Greenhouse Gas Emissions

This section summarizes the setting for greenhouse gas (GHG) emissions and climate change and analyzes the impacts related to GHG emissions and climate change due to the project.

4.8.1 Setting

Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2); methane (CH_4); nitrous oxides (N_2O); fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs); and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a 100-year GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (United Nations Intergovernmental Panel on Climate Change [IPCC] 2021).[1]

GHGs are emitted by natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are usually by-products of fossil fuel combustion, and CH_4 results from off-gassing associated with agricultural practices and landfills. Human-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (United States Environmental Protection Agency [USEPA] 2022a).

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period. The term "climate change" is often used interchangeably with the term "global warming," but climate change is preferred because it conveys that other changes are happening in addition to rising temperatures. The baseline against which these changes are measured originates in historical records that identify temperature changes that occurred in the past, such as during previous ice ages. The global climate is changing continuously, as evidenced in the geologic record, which indicates repeated episodes of substantial warming and cooling. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming over the past 150 years. The IPCC expressed in their Sixth Assessment Report that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities (IPCC 2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, a total of 2,390 gigatons of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global

[1] The Intergovernmental Panel on Climate Change's (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change's (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

surface temperature by approximately 1.07 degrees Celsius between the years 2010 through 2019 (IPCC 2021).

The accumulation of GHGs in the atmosphere regulates the earth's temperature. Without the natural heat-trapping effect of GHGs, the earth's surface would be about 33 degrees Celsius (°C) cooler (World Meteorological Organization 2013). However, since 1750, estimated concentrations of CO_2, CH_4, and N_2O in the atmosphere have increased by 47 percent, 156 percent, and 23 percent, respectively, primarily due to human activity (IPCC 2021). GHG emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, are believed to have elevated the concentration of these gases in the atmosphere beyond the level of concentrations that occur naturally.

a. Greenhouse Gas Emissions Inventory

Global Emissions Inventory

Worldwide anthropogenic GHG emissions totaled 47,000 million metric tons (MT) of CO_2e in 2015, which is a 43 percent increase from 1990 GHG levels (USEPA 2022b). Specifically, 34,522 million metric tons (MMT) of CO_2e of CO_2, 8,241 MMT of CO_2e of CH_4, 2,997 MMT of CO_2e of N_2O, and 1,001 MMT of CO_2e of fluorinated gases were emitted in 2015. The largest source of GHG emissions were energy production and fuel use from vehicles and buildings, which accounted for 75 percent of the global GHG emissions. Agriculture uses and industrial processes contributed 12 percent and six percent, respectively. Waste sources contributed three percent and international transportation sources contributed two percent. These sources account for approximately 98 percent because there was a net sink of two percent from land-use change (including afforestation/reforestation and emissions removals by other land use activities) (USEPA 2022b).

United States Emissions Inventory

Total United States (U.S.) GHG emissions were 6,558 MMT of CO_2e in 2019. Emissions decreased by 1.7 percent from 2018 to 2019. Since 1990, total U.S. emissions have increased by an average annual rate of 0.06 percent for a total increase of 1.8 percent between 1990 and 2019. The decrease from 2018 to 2019 reflects the combined influences of several long-term trends, including population changes, economic growth, energy market shifts, technological changes such as improvements in energy efficiency, and decrease carbon intensity of energy fuel choices. In 2019, the industrial and transportation end-use sectors accounted for 30 percent and 29 percent, respectively, of nationwide GHG emissions; while the commercial and residential end-use sectors accounted for 16 percent and 15 percent of nationwide GHG emissions, respectively, with electricity emissions distributed among the various sectors (USEPA 2022c).

California Emissions Inventory

Based on the California Air Resources Board (CARB) California Greenhouse Gas Inventory for 2000-2019, California produced 418.2 MMT of CO_2e in 2019, which is 7.2 MMT of CO_2e lower than 2018 levels. The major source of GHG emissions in California is the transportation sector, which comprises 40 percent of the state's total GHG emissions. The industrial sector is the second largest source, comprising 21 percent of the state's GHG emissions, while electric power accounts for approximately 14 percent (CARB 2021a). The magnitude of California's total GHG emissions is due in part to its large size and large population compared to other states. However, its relatively mild climate is a factor that reduces California's per capita fuel use and GHG emissions as compared to

other states. In 2016, the State of California achieved its 2020 GHG emission reduction target of reducing emissions to 1990 levels, as emissions fell below 431 MMT of CO_2e (CARB 2021).

Local Emissions Inventory

Based on the City of American Canyon's 2012 Energy Efficiency Climate Action Plan (EECAP), the City generated approximately 120,201 MT of CO_2e in 2010 (City of American Canyon 2012). On-road transportation was the major source accounting for 39.9 percent of the total, largely due to passenger vehicles, but also commercial trips and buses. Commercial/industrial energy was the second largest source of emissions at 27 percent. Residential energy usage represented 18 percent, and solid waste and wastewater represented 7 percent each. Off-road transportation accounted for 2 percent. Agriculture accounted for less than 1 percent of emissions (City of American Canyon 2012).

b. Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Each of the past three decades has been warmer than all the previous decades on record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature from 2015 to 2017 was approximately 1.0°C higher than the average global mean surface temperature over the period from 1880 to 1900 (National Oceanic and Atmospheric Administration 2020). Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature obtained from station observations jointly indicate that Land-Surface Air Temperature and sea surface temperatures have increased.

According to *California's Fourth Climate Change Assessment*, statewide temperatures from 1986 to 2016 were approximately 0.6 to 1.1°C higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include reduced water supply from snowpack, sea level rise, more extreme heat days per year, larger forest fires, and more drought years (State of California 2018). In addition to statewide projections, *California's Fourth Climate Change Assessment* includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state and regionally specific climate change case studies (State of California 2018). However, while there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. A summary follows of some of the potential effects that could be experienced in California because of climate change.

Air Quality

Scientists project that the annual average maximum daily temperatures in California could rise by 2.4 to 3.2°C in the next 50 years and by 3.1 to 4.9°C in the next century (State of California 2018). Higher temperatures are conducive to air pollution formation, and rising temperatures could therefore result in worsened air quality in California. As a result, climate change may increase the concentration of ground-level ozone. The magnitude of the effect of the increased concentration of ground-level ozone, and therefore its indirect effects, are uncertain. In addition, as temperatures have increased in recent years, the area burned by wildfires throughout the state has increased, and wildfires have occurred at higher elevations in the Sierra Nevada Mountains (State of California

2018). If higher temperatures continue to be accompanied by an increase in the incidence and extent of large wildfires, air quality could worsen. Severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state. However, if higher temperatures are accompanied by wetter, rather than drier conditions, the rains could tend to temporarily clear the air of particulate pollution, which would effectively reduce the number of large wildfires and thereby ameliorate the pollution associated with them (California Natural Resources Agency 2009).

Water Supply

Analysis of paleoclimatic data (such as tree-ring reconstructions of stream flow and precipitation) indicates a history of naturally and widely varying hydrologic conditions in California and the west, including a pattern of recurring and extended droughts. Uncertainty remains with respect to the overall impact of climate change on future precipitation trends and water supplies in California. Year-to-year variability in statewide precipitation levels has increased since 1980, meaning that wet and dry precipitation extremes have become more common (California Department of Water Resources 2018). This uncertainty regarding future precipitation trends complicates the analysis of future water demand, especially where the relationship between climate change and its potential effect on water demand is not well understood. The average early spring snowpack in the western U.S., including the Sierra Nevada Mountains, decreased by about 10 percent during the last century. During the same period, sea level rose over 0.15 meter along the central and southern California coasts (State of California 2018). The Sierra snowpack provides most of California's water supply as snow that accumulates during wet winters is released slowly during the dry months of spring and summer. A warmer climate is predicted to reduce the fraction of precipitation that falls as snow and the amount of snowfall at lower elevations, thereby reducing the total snowpack (State of California 2018). Projections indicate that average spring snowpack in the Sierra Nevada and other mountain catchments in central and northern California will decline by approximately 66 percent from its historical average by 2050 (State of California 2018).

Hydrology and Sea Level Rise

Climate change could affect the intensity and frequency of storms and flooding (State of California 2018). Furthermore, climate change could induce substantial sea level rise in the coming century. Rising sea level increases the likelihood of and risk from flooding. The rate of increase of global mean sea levels between 1993 to 2022, observed by satellites, is approximately 3.5 millimeters per year, double the twentieth century trend of 1.6 millimeters per year (World Meteorological Organization 2013; National Aeronautics and Space Administration 2022). Sea levels are rising faster now than in the previous two millennia, and the rise will probably accelerate, even with robust GHG emission control measures. While the City is no close to the Pacific coast, sea level rise may jeopardize California’s water supply due to saltwater intrusion and induce groundwater flooding and/or exposure of buried infrastructure (State of California 2018).

Agriculture

California has an over $50 billion annual agricultural industry that produces over a third of the country’s vegetables and two-thirds of the country’s fruits and nuts (California Department of Food and Agriculture 2020). Higher CO_2 levels can stimulate plant production and increase plant water-use efficiency. However, if temperatures rise and drier conditions prevail, certain regions of agricultural production could experience water shortages of up to 16 percent, which would increase

water demand as hotter conditions lead to the loss of soil moisture. In addition, crop yield could be threatened by water-induced stress and extreme heat waves, and plants may be susceptible to new and changing pest and disease outbreaks (State of California 2018). Temperature increases could also change the time of year certain crops, such as wine grapes, bloom or ripen, and thereby affect their quality (California Climate Change Center 2006).

Ecosystems

Climate change and the potential resultant changes in weather patterns could have ecological effects on the global and local scales. Soil moisture is likely to decline in many regions because of higher temperatures, and intense rainstorms are likely to become more frequent. Rising temperatures could have four major impacts on plants and animals: timing of ecological events; geographic distribution and range of species; species composition and the incidence of nonnative species within communities; and ecosystem processes, such as carbon cycling and storage (Parmesan 2006; State of California 2018).

4.8.2 Regulatory Setting

a. International

United Nations Climate Change Framework Convention

On March 21, 1994, the United States joined a number of countries around the world in signing the United Nations Climate Change Framework Convention. Under the Convention, governments agreed to gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

b. Federal Regulations

Federal Clean Air Act

The U.S. Supreme Court determined in *Massachusetts et al. v. Environmental Protection Agency et al.* ([2007] 549 U.S. 05-1120) that the USEPA has the authority to regulate motor vehicle GHG emissions under the federal Clean Air Act. The USEPA issued a Final Rule for mandatory reporting of GHG emissions in October 2009. This Final Rule applies to fossil fuel suppliers, industrial gas suppliers, direct GHG emitters, and manufacturers of heavy-duty and off-road vehicles and vehicle engines and requires annual reporting of emissions. In 2012, the USEPA issued a Final Rule that established the GHG permitting thresholds that determine when Clean Air Act permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities.

In *Utility Air Regulatory Group v. Environmental Protection Agency* (134 Supreme Court 2427 [2014]), the U.S. Supreme Court held the USEPA may not treat GHGs as an air pollutant for purposes of determining whether a source can be considered a major source required to obtain a Prevention of Significant Deterioration or Title V permit. The Court also held that Prevention of Significant Deterioration permits otherwise required based on emissions of other pollutants may continue to require limitations on GHG emissions based on the application of Best Available Control Technology.

Safer Affordable Fuel-Efficient Vehicles Rule

On September 27, 2019, the USEPA and the National Highway Traffic Safety Administration published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. The SAFE Rule Part One revokes California's authority to set its own GHG emissions standards and to adopt its own zero-emission vehicle mandates. On April 30, 2020, the USEPA and the National Highway Traffic Safety Administration published Part Two of the SAFE Vehicles Rule, which revised corporate average fuel economy and CO_2 emissions standards for passenger cars and trucks of model years 2021-2026, such that the standards increase by approximately 1.5 percent each year through model year 2026, as compared to the approximately 5 percent annual increase required under the 2012 standards (National Highway Traffic Safety Administration 2022).

Construction Equipment Fuel-Efficiency Standard

USEPA sets emission standards for construction equipment. The first federal standards (Tier 1) were adopted in 1994 for all off-road engines over 50 horsepower (hp) and were phased in by 2000. A new standard was adopted in 1998 that introduced Tier 1 for all equipment below 50 hp and established the Tier 2 and Tier 3 standards. The Tier 2 and Tier 3 standards were phased in by 2008 for all equipment. The current iteration of emissions standards for construction equipment are the Tier 4 efficiency requirements, which are contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068 (originally adopted in 69 Federal Register 38958 [June 29, 2004] and most recently updated in 2014 [79 Federal Register 46356]). Emissions requirements for new off-road Tier 4 vehicles were completely phased in by the end of 2015.

a. State Regulations

CARB is responsible for the coordination and oversight of State and local air pollution control programs in California. There are numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

California Advanced Clean Cars Program

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, the USEPA granted the waiver of Clean Air Act preemption to California for its GHG emission standards for motor vehicles, beginning with the 2009 model year, which allows California to implement more stringent vehicle emission standards than those promulgated by the USEPA. Pavley I regulates model years from 2009 to 2016 and Pavley II, now referred to as "LEV (Low Emission Vehicle) III GHG," regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the LEV, Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs and would provide major reductions in GHG emissions. By 2025, the rules will be fully implemented, and new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

California Advanced Clean Trucks Program

In June 2020, CARB approved the Advanced Clean Trucks regulation, which requires manufacturers who certify Class 2b-8 chassis or complete vehicles with combustion engines to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. In addition,

the regulation requires company and fleet reporting for large employers and fleet owners with 50 or more trucks. By 2045, all new trucks sold in California must be zero-emission. Implementation of this regulation would reduce consumption of nonrenewable transportation fuels as trucks transition to alternative fuel sources.

Executive Order B-48-18: Zero-Emission Vehicles

On January 26, 2018, Governor Brown signed Executive Order B-48-18 requiring all State entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as install 200 hydrogen fueling stations and 250,000 electric vehicle (EV) charging stations by 2025. It specifies that 10,000 of the EV charging stations should be direct current fast chargers. This order also requires all State entities to continue to partner with local and regional governments to streamline the installation of ZEV infrastructure. The Governor's Office of Business and Economic Development is required to publish a Plug-in Charging Station Design Guidebook and update the 2015 Hydrogen Station Permitting Guidebook to aid in these efforts. All State entities are required to participate in updating the 2016 ZEV Action Plan, along with the 2018 ZEV Action Plan Priorities Update, which includes and extends the 2016 ZEV Action Plan (Governor's Interagency Working Group on Zero-Emission Vehicles 2016, 2018) to help expand private investment in ZEV infrastructure with a focus on serving low-income and disadvantaged communities.

Executive Order N-79-20

Governor Gavin Newsom signed Executive Order N-79-20 in September 2020, which sets a Statewide goal that 100 percent of all new passenger car and truck sales in the State will be zero-emissions by 2035. It also sets a goal that 100 percent of statewide new sales of medium- and heavy-duty vehicles will be zero emissions by 2045, where feasible, and for all new sales of drayage trucks to be zero emissions by 2035. Additionally, the Executive Order targets 100 percent of new off-road vehicle sales in the State to be zero emission by 2035. CARB is responsible for implementing the new vehicle sales regulation.

California Global Warming Solutions Act of 2006 (Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279)

The "California Global Warming Solutions Act of 2006," (AB 32), outlines California's major legislative initiative for reducing GHG emissions. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020 and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHG emissions to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 target of 431 MMT of CO_2e, which was achieved in 2016. CARB approved the Scoping Plan on December 11, 2008, which included GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among others (CARB 2008).

The CARB approved the 2013 Scoping Plan update in May 2014. The update defined the CARB's climate change priorities for the next five years, set the groundwork to reach post-2020 statewide goals, and highlighted California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan.

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, extending the California Global Warming Solutions Act of 2006 by requiring the state to further reduce GHG emissions to 40

percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and legislation, such as SB 1383 and SB 100 (discussed below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies.

AB 1279, "The California Climate Crisis Act," was passed on September 16, 2022 and declares the State would achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045, and to achieve and maintain net negative greenhouse gas emissions thereafter. In addition, the bill states that the State would reduce GHG emissions by 85 percent below 1990 levels no later than 2045. The 2022 Scoping Plan lays out a path to achieve AB 1279 targets (CARB 2022). The actions and outcomes in the 2022 Scoping Plan would achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

Senate Bill 375

The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state's ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the MPO's Regional Transportation Plan (RTP). Qualified projects consistent with an approved SCS or Alternative Planning Strategy (categorized as "transit priority projects") can receive incentives to streamline CEQA processing.

The City of American Canyon is within the planning area of the Association of Bay Area Governments (ABAG). ABAG was assigned targets of a 10 percent reduction in GHGs from transportation sources by 2020 and a 19 percent reduction in GHGs from transportation sources by 2035 (CARB 2022b).

Assembly Bill 1493 (Reduce GHG Emissions from Vehicle Use)

AB 1493 (Chapter 200, Statutes of 2002), known as the Pavley Bill, amended Health and Safety Code Sections 42823, and added Section 43018.5 requiring CARB to develop and adopt regulations that achieve maximum feasible and cost-effective reduction of GHG emissions from passenger vehicles, light-duty trucks, and other vehicles used for noncommercial personal transportation in California.

Assembly Bill 1007 (State Alternative Fuels Plan)

AB 1007 (Chapter 371, Statutes of 2005) required the California Energy Commission (CEC) to prepare a State plan to increase the use of alternative fuels in California. The CEC prepared the State Alternative Fuels Plan (SAF Plan) in partnership with CARB and in consultation with other federal, State, and local agencies. The SAF Plan presents strategies and actions California must take to increase the use of alternative non-petroleum fuels in a manner that minimizes costs to California and maximizes the economic benefits of in-state production. The SAF Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-State

production of biofuels without causing a significant degradation of public health and environmental quality.

CARB In-Use On-Road and Off-Road Diesel Rules

The CARB rule imposes limits on idling, restricts the addition of older vehicles, and requires the retirement or replacement of older engines depending on their fleet size category. This policy indirectly impacts energy consumption.

More specifically, CARB is also charged with developing air pollution control regulations based upon the best available control measures and implementing feasible control measures under the State and Federal Clean Air Act (Health & Safety Code, Sections 39602.5, 39667, 43013, subdivisions (a) and (h), 43018, 40600, 40601, 40612(a)(2) and (c)(1)(A)). Pursuant to these statutory authorities, more stringent emission standards were adopted in 2004 for off-road construction equipment (i.e. "Tier 4" standards) (40 Code of Federal Regulations Parts 1039, 1065, and 1068; California Code of Regulations, title 13, Section 2025; AR 2854). CARB also adopted emission standards for on-road heavy duty diesel vehicles (i.e., haul trucks). (California Code of Regulations, title 13, Section 1956.8.) These haul truck regulations mandate fleet turn-over to ensure that by January 1, 2023, nearly all on-road diesel trucks will have 2010 model year engines or equivalent [i.e., Tier 4]. In addition, interim steps are incorporated into the regulations (e.g., vehicles older than 1999 will be replaced with newer engines by 2020).

California Integrated Waste Management Act (Assembly Bill 341)/Assembly Bill 1826 (Mandatory Recycling/Composting)

The California Integrated Waste Management Act of 1989, as modified by AB 341, requires each jurisdiction's source reduction and recycling element to include an implementation schedule that shows diversion away from landfills of 75 percent of all solid waste by 2020 and annually thereafter. AB 1826 requires recycling of organic waste (i.e., composting). All businesses and public entities that generate four or more cubic yards of solid waste per week and multi-family residential dwellings that have five or more units are required to recycle and compost.

Senate Bill 1383

Adopted in September 2016, SB 1383 requires CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. SB 1383 requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

SB 1383 also requires the California Department of Resources Recycling and Recovery (CalRecycle), in consultation with the CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

Senate Bill 100

Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard (RPS) Program, which was last updated by SB 350 in 2015. SB 100 requires electricity providers to increase procurement

from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045. The 2020 goal was met, with approximately 36 percent of electricity coming from renewable sources in March 2021 (CARB 2021b).

Executive Order B-55-18

On September 10, 2018, the former Governor Brown issued Executive Order B-55-18, which established a new statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing statewide GHG reduction targets established by SB 375, SB 32, SB 1383, and SB 100.

California Refrigerant Management Program

California's Refrigerant Management Program (RMP) regulates refrigerants used in larger facilities, primarily industrial and supermarket land uses. Refrigerants regulated under the RMP include any refrigerant that is an ozone depleting substance as defined in Title 40 of the Code of Federal Regulation, Part 82, and any compound with a GWP value equal to or greater than 150 according to the GWPs specified in the IPCC Fourth Assessment Report of 2007. According to the RMP, all supermarket and industrial refrigeration systems with a full recharge capacity of 50 pounds (22.7 kilograms) or greater will be required to limit the refrigerants used to no greater than 150 GWP beginning in 2022. Similarly, according to the RMP, all room air conditioning unit systems with a full recharge capacity of 50 pounds or greater will be required to limit the refrigerants used to no greater than 750 GWP beginning in 2023.

Senate Bill 1020

Senate Bill 1020 (SB 1020), signed into law on September 16, 2022, requires renewable energy and zero-carbon resources to supply 90 percent of all retail electricity sales by 2035, 95 percent by 2040, and 100 percent by 2045. All State agencies facilities must be served by 100 percent renewable and zero-carbon resources by 2030. SB 1020 also requires the Public Utilities Commission, Energy Commission, and CARB to issue a joint progress report outlining the reliability of the electrical grid with a focus on summer reliability and challenges and gaps. Additionally, SB 1020 requires the Public Utilities Commission to define energy affordability and use energy affordability metrics to develop protections, incentives, discounts, or new programs for residential customers facing hardships due to energy or gas bills.

CARB Gas Appliances Sales Ban

As part of the 2022 State Implementation Plan, CARB adopted a ban on new sales of natural gas heaters, water heaters, and furnaces by 2030 in September of 2022. This new measure is intended to reduce emissions from new residential and commercial space and water heaters sold in the State. An emission standard for space and water heaters will go into effect in 2030. Beginning in 2030, 100 percent of the sales of new natural gas-powered heaters and water heaters would need to comply with the emission standard, such as putting in electric heaters or other zero-emission options.

California Building Standards Code

The California Code of Regulations (CCR) Title 24 is referred to as the California Building Standards Code. It consists of a compilation of several distinct standards and codes related to building construction, including plumbing, electrical, interior acoustics, energy efficiency, and accessibility for persons with physical and sensory disabilities. The California Building Standards Code's energy-

efficiency and green building standards are outlined below. These standards are updated every three years and the project would be subject to the 2022 California Building Standards when they go into effect on January 1, 2023.

Part 6 – Building Energy Efficiency Standards/Energy Code

CCR Title 24, Part 6 is the Building Energy Efficiency Standards or California Energy Code. This code, originally enacted in 1978, establishes energy-efficiency standards for residential and non-residential buildings to reduce California's energy demand. New construction and major renovations must demonstrate their compliance with the current Energy Code through submittal and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The current iteration is the 2019 Title 24 standards. The California Building Standards Code's energy-efficiency and green building standards are outlined below. The 2022 Standards have been adopted and will come into effect January 1, 2023.

Part 11 – California Green Building Standards

The California Green Building Standards Code, referred to as CALGreen, was added to Title 24 as Part 11, first in 2009 as a voluntary code, which then became mandatory effective on January 1, 2011 (as part of the 2010 California Building Standards Code). The 2022 CALGreen includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures. It also includes voluntary tiers with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory CALGreen standards and may adopt additional amendments for stricter requirements.

The mandatory standards require:

- Minimum 20 percent reduction in indoor water use relative to specified baseline levels;[2]
- Waste Reduction:
  - Minimum 65 percent non-hazardous construction/demolition waste diverted from landfills;
  - Non-residential and Multifamily dwellings with 5 or more units shall provide readily accessible areas identified for the depositing, storage and collection of nonhazardous materials for recycling including (at a minimum) paper, corrugated cardboard, glass, plastic, organic waste, and metals;
  - Nonresidential: 100 percent of trees, stumps, rocks and associated vegetation soils resulting from primary land clearing shall be reused or recycled.
- Inspections of energy systems to ensure optimal working efficiency;
- Electric Vehicle (EV) Charging for New Construction:[3]

[2] Similar to the compliance reporting procedure for demonstrating Energy Code compliance in new buildings and major renovations, compliance with the CALGreen water reduction requirements must be demonstrated through completion of water use reporting forms. Buildings must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CALGreen or a reduced per-plumbing-fixture water use rate.

[3] EV Capable = a vehicle space with electrical panel space and load capacity to support a branch circuit and necessary raceways to support EV charging. EV Ready = a vehicle space which is provided with a branch circuit and any necessary raceways to accommodate EV charging stations including a receptacle for future installation of a charger. See 2022 California Green Building Standard Code, Title 24 Part 11 for full explanation of mandatory measures including exceptions.

- Multifamily dwellings, hotels/motels with less than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable and at least 25 percent of the total number of parking spaces shall be EV Ready.
- Multifamily dwellings, hotels/motels with greater than 20 units/rooms: Designation of at least 10 percent of the total number of parking spaces shall be EV capable, at least 25 percent of the total number of parking spaces shall be EV Ready, and at least 5 percent of the total number of parking spaces shall be equipped with a Level 2 Charging Station.
- Non-residential land uses shall comply with the following EV charging requirements based on the number of passenger vehicle parking spaces:
  - 0-9: no EV capable spaces or charging stations required;
  - 10 – 25: 4 EV capable spaces but no charging stations required;
  - 26 – 50: 8 EV capable spaces of which 2 must be equipped with charging stations;
  - 51 – 75: 13 EV capable spaces of which 3 must be equipped with charging stations;
  - 76 – 100: 17 EV capable spaces of which 4 must be equipped with charging stations;
  - 101 – 150: 25 EV capable spaces of which 6 must be equipped with charging stations;
  - 151 – 200: 35 EV capable spaces of which 9 must be equipped with charging stations;
  - >200: 20 percent of the total available parking spaces of which 25 percent must be equipped with charging stations;
- Non-residential land uses shall comply with the following EV charging requirements for medium-duty and heavy-duty vehicles: Warehouses, grocery stores, and retail stores with planned off-street loading spaces shall install EV supply and distribution equipment, spare raceway(s) or busway(s) and adequate capacity for transformer(s), service panel(s), or subpanel(s) at the time of construction based on the number of off-street loading spaces as indicated in Table 5.106.5.4.1 of the California Green Building Standards.

- Bicycle Parking:
  - Non-residential short term bicycle parking for projects anticipated to generate visitor traffic: permanently anchored bicycle racks within 200 feet of visitor entrance for 5 percent of new visitor motorized vehicle parking spaces with a minimum of one two-bike capacity rack.
  - Non-residential buildings with tenant spaces of 10 or more employees/tenant-occupants: Secure bicycle parking for 5 percent of the employee/tenant-occupant vehicle parking spaces with a minimum of one bicycle parking facility.

- Shade Trees (Non-Residential):
  - Surface parking: Minimum No. 10 container size or equal shall be installed to provide shade over 50 percent of the parking within 15 years (unless parking area covered by appropriate shade structures and/or solar);
  - Landscape areas: Minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years;
  - Hardscape areas: Minimum No. 10 container size or equal shall be installed to provide shade of 20 percent of the landscape area within 15 years (unless covered by applicable shade structures and/or solar or the marked area is for organized sports activities).

The CALGreen voluntary standards are only mandatory if a local ordinance requires them. Since the City has not made any of the voluntary measures mandatory, the following voluntary standards would not be applicable to the project:

- Deconstruct existing buildings and reuse applicable salvaged materials;
- Residential Bicycle Parking:
  - Multifamily/hotel/motel short-term parking: Provide permanently anchored bicycle racks within 100 feet of visitor's entrance for 5 percent of visitor motorized vehicle parking capacity (minimum 1 two-bile capacity rack);
  - Hotel/Motel long-term parking: Provide one acceptable on-site bicycle parking space for every 25,000 square feet but not less than two spaces;

The CALGreen voluntary standards are divided into two tiers. Tier 1 adds additional requirements beyond the mandatory measures, whereas Tier 2 further increases the requirements.

- **Tier I:**
  - Stricter energy efficiency requirements;
  - Stricter water conservation requirements for specific fixtures;
  - Minimum 65 percent reduction in construction waste with third-party verification, Minimum 10 percent recycled content for building materials;
  - Minimum 20 percent permeable paving;
  - Minimum 20 percent cement reduction;
  - Multifamily developments/hotels/motels: Minimum 35 percent of total parking spaces shall be EV ready and for projects with 20 or more dwelling units/rooms a minimum of 10 percent of the total number of parking spaces shall be equipped with EV charging stations;
- **Tier II:**
  - Stricter energy efficiency requirements,
  - Stricter water conservation requirements for specific fixtures;
  - Minimum 75 percent reduction in construction waste with third-party verification,
  - Minimum 15 percent recycled content for building materials;
  - Minimum 30 percent permeable paving;
  - Minimum 25 percent cement reduction;
  - Multifamily developments/hotels/motels: Minimum 40 percent of total parking spaces shall be EV ready and for projects with 20 or more dwelling units/rooms a minimum of 15 percent of the total number of parking spaces shall be equipped with EV charging stations.

b. Regional and Local Regulations

Plan Bay Area 2050

Plan Bay Area 2050 is a State-mandated, integrated long-range transportation, land-use, and housing plan, known as an RTP/SCS, that would support a growing economy, provide more housing and transportation choices and reduce transportation-related pollution in the nine-county San Francisco Bay Area. Plan Bay Area 2050 builds on earlier efforts to develop an efficient transportation network and grow in a financially and environmentally responsible way. Plan Bay

Area 2050 focuses on advancing equity and improving resiliency in the Bay Area by creating strategies in the following four elements: Housing, Economy, Transportation, and Environment. The Plan discusses how the future is uncertain due to anticipated employment growth, lack of housing options, and outside forces, such as climate change and economic turbulence. These uncertainties will impact growth in the Bay Area and exacerbate issues for those who are historically and systemically marginalized and underserved and excluded. Thus, Plan Bay Area 2050 has created strategies and considered investments that will serve those systemically underserved communities and provide equitable opportunities. The Plan presents a total of 35 strategies to outline how the $1.4 trillion dollar investment would be utilized. The strategies include, but are not limited to, the following: providing affordable housing, allowing higher-density in proximity to transit-corridors, optimizing the existing roadway network, creating complete streets, providing subsides for public transit, reducing climate emissions, and expanding open space area. To bring these strategies to fruition, it will require participation by agencies, policymakers, and the public. An implementation plan is also included as part of the Plan to assess the requirements needed to carry out the strategies, identify the roles of pertinent entities, create an appropriate method to implement the strategies, and create a timeline for implementation.

Napa Valley Transportation Authority

The Napa Valley Transportation Authority (NVTA) is a Congestion Management Agency (CMA) formed in 1998 as a joint power authority between the cities of American Canyon, Calistoga, Napa, St. Helena, the town of Yountville, and the County of Napa. NVTA serves as the countywide transportation planning agency. NVTA also develops the long-range county transportation plan, which (along with similar plans from the other eight Bay Area counties) forms the “primary basis” for the RTP/SCS adopted by the Metropolitan Transportation Commission. In turn, the county transportation plan must consider the most recently adopted RTP/SCS to assure that the county transportation plans and the regional plan employ a common planning framework.

City of American Canyon Energy Efficiency Climate Action Plan

The City of American Canyon Energy Efficiency Climate Action Plan (EECAP) was adopted to develop a coordinated approach to energy efficiency and GHG reductions within the community and local government. The EECAP provides feasible strategies and measures that cost-effectively reduce energy-related and GHG emissions. Additionally, the EECAP includes an inventory of GHG emissions from all sectors in the community for years 2005 and 2010, as well as forecasts of anticipated GHG emissions for years 2020 and 2035 under a business-as-usual scenario that takes into consideration current consumption patterns, as well as population and job projections.

City of American Canyon General Plan

The City of American Canyon adopted its General Plan in 1994, which contains objectives and policies that help address climate change and reduce the community’s GHG emissions at the local level and improve energy efficiency and conservation. Under Resolution 2021-60, the General Plan was updated September 7, 2021, to include additional climate change and adaptation policies. The following objectives and policies from the City’s General Plan are relevant to GHG emissions and energy conservation:

Objective 1.37: Consider initiatives to reduce direct and indirect greenhouse gas (GHG) emissions from transportation sources, and from new, renovated, and existing development in the City.

Policy 1.37.6: Reduce vehicle engine idling in American Canyon by educating the broader community (i.e.: businesses, commuters, residents) on the greenhouse gas impacts caused by engine idling and implementing feasible commercial vehicle regulations.

Goal 8F: Reduce consumption of nonrenewable energy sources and support the development and utilization of new energy sources.

Objective 8.22: Minimize transportation-related energy consumption.

Policy 8.22.1: Encourage the development of mixed use, pedestrian friendly employment/residential centers that help minimize vehicle trips in American Canyon and contribute to a reduction in energy consumption.

Policy 8.22.2: Encourage the clustering of residential structures.

Policy 8.22.3: Require that Development Plans provide for linkages between bicycle and pedestrian circulation systems and transit and employment centers, in accordance with established areawide plans.

Policy 8.22.4: Maintain a system of traffic signals and controls that minimizes waiting time and vehicle speed changes through routes.

Policy 8.22.5: Require that Development Plans provide for High-Occupancy Vehicles (HOV) and public transportation, where feasible, through the provision of appropriate transit areas and park-and-ride locations along public transportation routes.

Objective 8.23: Reduce Energy consumption in buildings.

Policy 8.23.1: Require that developers employ energy-efficient subdivision and site planning methods as well as building design. Measures to be considered include building orientation and shading, landscaping, building reflectance, use of active and passive solar heating and hot water system, etc. In establishing these energy related design requirements, the City shall balance energy-efficient design with good planning principles.

Policy 8.23.2: Require that new City buildings be energy efficient.

Objective 8.24: Increase public awareness of energy conservation needs and means in order to encourage informed choices about energy conservation by the general public.

Policy 8.24.1: Cooperate with local utilities to provide energy conservation information to the public.

Policy 8.24.2: Develop public and/or public-private energy conservation educational programs for City employees and the public.

Objective 8.25: Increase the energy efficiency of City operations to save energy, reduce municipal costs, and provide an example to the private sector.

Policy 8.25.1: Introduce concepts of energy efficiency and lifecycle costing to City planning and operating decisions and to the design of all major City facilities.

Policy 8.25.2: Work with other agencies and utility companies to develop safe, economical and renewable energy resources.

Policy 8.25.3: Consider participating in energy conservation demonstration projects and promoting the use of treatment technologies that provide for the reuse of waste and water treatment by products, such as sludge and methane gas.

In addition to the above General Plan policies related to GHG emissions and energy consumption, the City adopted a Climate Emergency Proclamation on November 16, 2021.

4.8.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on GHG emissions if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Most individual projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence on climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (*CEQA Guidelines*, Section 15064[h][1]). The 2022 BAAQMD *CEQA Air Quality Guidelines* provides two plan level thresholds for determining the significance of GHGs. The two approaches are as follows:

1. Consistency with a qualified GHG reduction plan
2. Meets the State's goals to reduce emissions to 40 percent below 1990 levels by 2030 and carbon neutrality by 2045

The City of American Canyon's EECAP is not a qualified GHG reduction plan, since it contains targets only for 2020 and was adopted prior to the adoption of new targets contained in the 2017 Scoping Plan; therefore, the first approach is not feasible. As such, the City uses the second approach to determine the significance of GHGs for development facilitated by the project.

Methodology

Based on plan-level guidance from the 2022 BAAQMD *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans,* GHG emissions associated with project implementation is discussed qualitatively by comparing the project to the 2022 BAAQMD GHG thresholds, namely whether policies work towards achieving carbon neutrality by 2045. In

addition, the project is qualitatively compared to other applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs.

In developing its 2022 GHG significance thresholds, BAAQMD analyzed what new land use development projects will require to achieve California's long-term climate goal of carbon neutrality by 2045, thereby better representing what design elements new land use development projects need to incorporate to sufficiently contribute to achieving the State's goal. As GHG emissions from the land use sector come primarily from building energy use and from transportation, these are the areas that need to be evaluated to determine whether the project can or will be carbon neutral. With respect to building energy use, this can be achieved by replacing natural gas with electric power and by eliminating inefficient or wasteful electricity usage. These strategies will support California's transition away from fossil fuel-based energy sources and will bring the project's GHG emissions associated with building energy use down to zero because SB 100 incrementally requires greater proportions of in-state sales of electricity to be generated from renewable and carbon-free sources, ultimately requiring 100 percent of in-state electricity sales to be generated from carbon-free sources by 2045. With respect to transportation, projects need to be designed to reduce project-generated VMT and to provide sufficient EV charging infrastructure to support the adoption of EVs. BAAQMD's 2022 significance thresholds for project design elements are listed below. If a land use development project cannot demonstrate consistency, then that project would result in a potentially significant impact related to GHG emissions.

1. Buildings:
    i. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
    ii. The project will not result in any wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.
2. Transportation:
    i. Achieve compliance with off-street EV requirements in the most recently adopted version of CALGreen Tier 2.
    ii. Achieve a 15 percent reduction in project-generated VMT per employee rate below the existing American Canyon rate.

As discussed in Chapter 4.15, *Transportation*, project-generated traffic is evaluated for whether it would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), which describes specific considerations for analyzing transportation impacts as amended on July 1, 2020, pursuant to SB 375. SB 375 aims to better promote statewide policies that (a) combat climate change by reducing greenhouse gas emissions and particulates; (b) encourage infill development and a diversity of uses instead of sprawl; and (c) promote multi-modal transportation networks, providing clean, efficient access to destinations and improving public health through active transportation. Section 15064.3(b) states that VMT is "generally" the most appropriate measure of transportation impacts. No particular methodology or metric is mandated by section 15064.3(b) and the methodology or metric is left to the lead agency, bearing in mind the criteria the legislature had in mind for determining the significance of transportation impacts in SB-743. These were expressed in Public Resource Code section 21099(b)(1), which states: "[t]hose criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." The project's VMT assessment utilized the American Canyon travel demand model to

forecast the rate of VMT per employee for the project land uses at buildout under the following two scenarios:

- Scenario A: Existing plus Project Conditions
- Scenario B: Cumulative Conditions (with the project) based on Year 2045 citywide residential and commercial growth as well as projected regional land use growth

The American Canyon travel demand model is a trip-based model. Therefore, VMT per employee was estimated based on the VMT associated with home-based work trips. VMT impacts would be considered potentially significant under either scenario if the forecasted rate of VMT per employee for the project were to exceed 85 percent of the existing rate of VMT per employee for jobs in American Canyon, based on the American Canyon travel demand model.

In terms of the potential for wasteful, inefficient, or unnecessary electrical usage as determined by the analysis required under CEQA Section 21100(b)(3) and CEQA Guidelines Section 15126.2(b), project energy impacts are addressed in Chapter 4.6, *Energy*.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
Threshold 2:	Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Impact GHG-1 THE PROJECT WOULD BE CONSISTENT WITH BAAQMD THRESHOLDS AFTER IMPLEMENTATION OF MITIGATION MEASURES GHG-1 THROUGH GHG-5. THIS IMPACT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Construction

Construction of the project would result in GHG emissions during construction, primarily from fuel consumption associated with heavy equipment, light-duty vehicles, machinery, and generators for lighting. Temporary grid power may also be provided to construction trailers or electric construction equipment that may result in indirect GHG emissions from energy generation. The project would utilize construction contractors that would be required to comply with applicable CARB regulations, such as accelerated retrofitting, repowering, or replacement of heavy-duty diesel on-road and off-road equipment. Construction contractors are required to comply with the provisions of CCR Title 13, sections 2449 and 2485, and CARB regulations, which prohibit diesel-fueled commercial and off-road vehicles from idling for more than five minutes, minimizing unnecessary GHG emissions. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard, which would minimize inefficient fuel consumption and thus GHG emissions. These construction equipment standards (i.e., Tier 4 efficiency requirements) are contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068. Pursuant to applicable regulatory requirements of CALGreen, the project would comply with construction waste management practices to divert construction and demolition debris from landfills. These practices would result in efficient use of energy during construction and, therefore, would minimize unnecessary GHG emissions. Furthermore, in the interest of cost efficiency, construction contractors would not utilize fuel in a manner that is wasteful or unnecessary, which would also have the effect of minimizing GHG emissions.

The use of GHG-reducing construction Best Management Practices (BMPs) is considered by the City to be a pragmatic and effective approach for the control of construction-related GHG emissions. The BAAQMD, in their 2017 CEQA Air Quality Guidelines, recommend that following construction BMPs for reducing GHG emissions:

- The use of alternative fueled construction vehicles and equipment for at least 15 percent of the fleet.
- The use of local building materials for at least 10 percent of materials.
- The recycling and reuse of at least 50 percent of construction and demolition waste materials.

Pursuant to the 2022 BAAQMD *CEQA Thresholds for Evaluating the Significance of Climate Impacts From Land Use Projects and Plans*, BAAQMD does not recommend a construction-related climate impact threshold. According to BAAQMD, GHG emissions from construction represent a very small portion of a project's lifetime GHG emissions. However, incorporation of feasible and applicable GHG-reducing construction BMPs serves herein as the basis for whether project construction would contribute its "fair share" of GHG emission reductions consistent with the legislative reduction targets codified by SB 32 and the State's long-term climate goal of carbon neutrality by 2045. The California Supreme Court, in Center for Biological Diversity v. Department of Fish & Wildlife (2015) (62 Cal.4th 204, 220-223), explained that an approach by which a lead agency ascertains a proposed project's "fair share" of required Statewide GHG reductions is a legitimate approach for formulating significance thresholds for GHG emissions. Under this approach, which here is focused on the project incorporating BAAQMD-recommended BMPs for construction-related emissions, the project would be considered to result in a potentially significant impact if project construction would not incorporate feasible and applicable GHG reducing construction BMPs including, at a minimum, those listed above. Mitigation Measure GHG-1 would require the implementation of BMPs during construction, including those identified by BAAQMD. As such, potentially significant construction impacts would be reduced to a less than significant level with Mitigation Measure GHG-1.

The proposed thresholds for land use projects are designed to address operational GHG emissions that represent the vast majority of project GHG emissions. Therefore, the primary evaluation of GHG emissions impacts associated with project implementation is focused on operational emissions, discussed below.

Operations

The project would result in GHG emissions during operation. The nature of GHG emissions would be typical of those associated with light industrial, commercial, and hotel uses. GHG emissions would result primarily from building energy usage and fuel consumption associated with vehicle trips. Operational buildout is expected to be 2030.

Transportation

On-road transportation sources are based on passenger vehicle and truck trip generation rates and VMT (See Section 4.15, *Transportation*), including the proposed Newell Drive Extension. According to the VMT information, which is based on American Canyon travel demand model, the project would generate 25.2 VMT per employee under Existing plus Project conditions and 13.8 VMT per employee under Cumulative plus Project conditions, which would not exceed the established VMT threshold of 29.0 VMT per employee and VMT impacts would be less than significant.

However, without requirements for electric vehicles and electric vehicle parking, the project would conflict with the BAAQMD threshold to meet CALGreen Tier 2 EV parking. Implementation of Mitigation Measure GHG-2 would ensure that CALGreen Tier 2 EV parking levels are provided, and that heavy-duty vehicles and off-road equipment associated with the industrial uses are electric.

Buildings

Future buildings developed under the project would be served by PG&E, which is required to increase its renewable energy procurement in accordance with SB 100 targets. SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state's Renewables Portfolio Standard Program. It requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

Pursuant to the BAAQMD thresholds, projects that include natural gas appliances or natural gas plumbing (in both residential and nonresidential development) would result in a potentially significant GHG impact. Implementation of Mitigation Measure GHG-3 would require that all new buildings include all-electric appliances and water heaters. In addition, Mitigation Measure GHG-4 would require that buildings be designed to meet the Tier 2 advanced energy efficiency requirements in the California Green Building Standards Code. Furthermore, Mitigation Measure GHG-5 would require that electricity for future buildings be supplied with 100 percent carbon-free electricity sources through the year 2045 with on-site photovoltaic solar.

Consistency with State GHG Reduction Plans

The project is a program-level document that guides land use and development within the project site. The CARB 2017 Climate Change Scoping Plan outlines a pathway to achieving the 2030 reduction targets set under SB 32, which are considered interim targets toward meeting the long-term 2045 carbon neutrality goal established by California Executive Order B-55-18. The CARB 2022 Scoping Plan outlines a path to achieving carbon neutrality, in addition to outlining a pathway to reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045, set under AB 1279.

As described in the *Methodology* subsection in Section 4.8.3, *Impact Analysis,* GHG emissions associated with project implementation is discussed qualitatively by comparing the project to the 2022 BAAQMD GHG thresholds, namely whether policies work towards achieving carbon neutrality by 2045. Without mitigation, the project would not be consistent with the 2022 BAAQMD GHG thresholds and impacts would be potentially significant. However, as described below, with implementation of mitigation, the project would be consistent with the 2022 BAAQMD GHG thresholds, resulting in a less than significant impact after mitigation:

- The project would not include natural gas appliances or natural gas plumbing, after implementation of Mitigation Measure GHG-3
- The project would not result in wasteful, inefficient, or unnecessary electrical usage after implementation of Mitigation Measures GHG-4 and GHG-5.
- The project would achieve compliance with off-street EV requirements after implementation of Mitigation Measure GHG-2.
- The project would achieve a 15 percent reduction in project-generated VMT per employee rate below the existing American Canyon rate (see Section 4.15, *Transportation*).

Mitigation Measures

GHG-1 Construction BMPs

Prior to the issuance of any grading permits, the project applicant shall provide the City of American Canyon with documentation (e.g., site plans) demonstrating project construction will include the following construction Best Management Practices (BMPs):

- At least 15 percent of the construction fleet for each project phase shall be alternatively fueled or electric.
- At least 10 percent of building materials used for project construction shall be sourced from local suppliers.
- At least 65 percent of construction and demolition waste materials shall be recycled or reused.
- At least one contractor that has a business location in American Canyon shall be contracted for project construction.
- All construction contracts shall include language that requires all off-road equipment with a power rating below 19 kilowatts (e.g., plate compactors, pressure washers) using during construction be electrically powered.
- Architectural coatings used for project construction shall be "Low-VOC," containing no greater than 50 grams of volatile organic compounds (VOC) per liter of product.
- Project construction shall prohibit the use of generators and shall establish grid power connection to electrical equipment needs.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure [ATCM] Title 13, Section 2485 of California Code of Regulations). Clear signage regarding idling restrictions shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- The prime construction contractor shall post a publicly visible sign with their telephone number and contractor to contact. The construction contractor shall take corrective action within 48 hours. The BAAQMD's phone number shall also be identified and visible to ensure compliance with applicable regulations.

GHG-2 Electric Vehicle Charging Stations

Prior to issuance of any building permits, the project applicant shall demonstrate to the satisfaction of the City (e.g., shown on-site plans), that the proposed parking areas for passenger automobiles and trucks are designed and will be built to accommodate electric vehicle (EV) charging stations. At a minimum, the parking shall be designed to accommodate EV charging stations equal to the Tier 2 Nonresidential Voluntary Measures of the California Green Building Standards Code, Section A5.106.5.3.2.

Prior to the issuance of any building permits, the project applicant shall demonstrate to the satisfaction of the City (e.g., shown on-site plans), that each loading dock is outfitted with at least one 240-volt outlet to accommodate truck and Transport Refrigeration Unit (TRU) charging and/or electrical power connection while trucks are loading and unloading goods.

GHG-3 All Electric Buildings

Prior to the issuance of any building permits, the project applicant shall provide the City with documentation (e.g., site plans) demonstrating the project is designed without the use of any natural gas-fueled appliances or natural gas plumbing.

GHG-4 Tier 2 Advanced Energy Efficiency Requirements

Prior to issuance of any building permits, the project applicant shall demonstrate to the satisfaction of the City (e.g., shown on-site plans), that the proposed buildings are designed and will be built to, at a minimum, the Tier 2 advanced energy efficiency requirements of the Nonresidential Voluntary Measures of the California Green Building Standards Code, Division A5.2, Energy Efficiency, as outlined under Section A5.203.1.2.2.

GHG-5 Carbon-Free Electricity Sources

Prior to the issuance of any building permit for the project, the project applicant shall provide the City with documentation (e.g., site plans) demonstrating to the City's satisfaction that electricity demand will be supplied with 100 percent carbon-free electricity sources through the year 2045 with on-site photovoltaic solar.

Significance After Mitigation

Implementation of Mitigation Measures GHG-1 through GHG-5 would ensure that GHG impacts would be less than significant.

4.8.4 Cumulative Impacts

"Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15355). Most projects do not generate sufficient GHG emissions to create a project-specific impact through a direct influence on climate change. Therefore, climate change analysis for the project involved an analysis of whether the project's contribution toward an impact would be cumulatively considerable. In addition, the project is cumulative in nature as it represents growth through the annexed area because of future development. The project is not one individual project. A number of as yet undefined future projects may occur due to the annexation associated with the project. Therefore, cumulative impacts with respect to GHG emissions represents emissions associated with buildout of individual projects and thus cumulative emissions. Because emissions facilitated by the project would be consistent with BAAQMD GHG thresholds, it would be consistent with State GHG reduction plans. Therefore, the project's contribution to cumulative impacts with respect to GHG emissions would be less than cumulatively considerable.

4.9 Hazards and Hazardous Materials

This section analyzes potential impacts relating to hazards and hazardous materials in the soil, groundwater, and existing structures associated with development facilitated by the project. Geologic hazards are discussed in Section 4.7, *Geology and Soils*.

4.9.1 Setting

a. Hazardous Materials

A material is considered hazardous if it appears on a list of hazardous materials from a federal, State, or local agency, or if it has characteristics defined as hazardous by an agency. A hazardous waste is defined in Title 22, Section 66261.10 of the California Code of Regulations (CCR) as one that has a characteristic that may:

> Cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or pose a substantial present or potential hazard to human health or the environment when it is improperly treated, stored, transported, disposed of or otherwise managed.

Chemical and physical properties cause a substance to be considered hazardous. Such properties include toxicity, ignitability, corrosiveness, and reactivity. Sections 66261.20 through 66261.24 of Title 22 of the CCR defines the properties for hazardous waste and may be used to define characteristics of a hazardous material. The release of hazardous materials or hazardous wastes into the environment can contaminate soils, surface water, and groundwater supplies. The types of hazardous materials are defined below:

- **Toxic Substances.** Toxic substances may cause short-term or long-lasting health effects, ranging from temporary effects to permanent disability, or even death. For example, such substances can cause disorientation, acute allergic reactions, asphyxiation, skin irritation, or other adverse health effects if human exposure exceeds certain levels (the level depends on the substances involved and is chemical-specific). Carcinogens, substances that can cause cancer, are a special class of toxic substances. Examples of toxic substances include benzene (a component of gasoline and suspected carcinogen) and methylene chloride (a common laboratory solvent and a suspected carcinogen).
- **Ignitable Substances**. Ignitable substances are hazardous because of their ability to burn. Gasoline, hexane, and natural gas are examples of ignitable substances.
- **Corrosive Materials.** Corrosive materials can cause severe burns. Corrosives include strong acids and bases such as sodium hydroxide (lye) or sulfuric acid (battery acid).
- **Reactive Materials.** Reactive materials may cause explosions or generate toxic gases. Explosives, pure sodium or potassium metals (which react violently with water), and cyanides are examples of reactive materials.

Soil and groundwater can become contaminated by hazardous material releases in a variety of ways, including permitted or illicit use and accidental or intentional disposal or spillage. Before the 1980s, most land disposal of chemicals was unregulated, resulting in numerous industrial properties and public landfills becoming dumping grounds for unwanted chemicals. The largest and most contaminated of these sites became Superfund sites, named for their eligibility to receive cleanup

money from a federal fund established under the Comprehensive Environmental Response, Compensation, and Liability Act. The National Priorities List (NPL) is the list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the U.S. Environmental Protection Agency (USEPA) in determining which sites warrant further investigation. Sites are added to the NPL following a hazard ranking system.

Numerous smaller properties have been designated as contaminated sites. Often these are gas station sites where leaking underground storage tanks (LUSTs) were upgraded under a federal requirement in the late 1980s. Another category of sites that may have some overlap with the types already mentioned is "brownfields" – previously used, often abandoned, sites that due to actual or suspected contamination are undeveloped or underused. Both the USEPA and California Department of Toxic Substances Control (DTSC) maintain lists of known brownfields sites. These sites are often difficult to inventory due to their owners' reluctance to publicly label their property as potentially contaminated. The known hazardous materials release sites pertinent to the project are described in the *Hazardous Materials Sites* section below.

Asbestos Containing Materials

Asbestos is a naturally occurring fibrous material that was widely used in structures built between 1945 and 1978 for its fireproofing and insulating properties. Asbestos-containing materials (ACM) were banned by the USEPA between the early 1970s and 1991 under the authority of the federal Clean Air Act (CAA) and the Toxic Substances Control Act (TSCA) due to their harmful health effects. Exposure to asbestos increases risk of developing lung disease, such as lung cancer, mesothelioma, or asbestosis (USEPA 2022a). Common ACMs include vinyl flooring and associated mastic, wallboard and associate joint compound, plaster, stucco, acoustic ceiling spray, ceiling tiles, heating system components, and roofing materials. Pre-1973 commercial and industrial structures are required to implement asbestos regulations if damage occurs, or if remodeling, renovation, or demolition activities disturb ACMs.

Lead and Lead-Based Paint

Lead is a naturally occurring metallic element. Because of its toxic properties, lead is regulated as a hazardous material. Excessive exposure to lead can result in the accumulation of lead in the blood, soft tissues, and bones. Children are particularly susceptible to potential lead-related health problems because it is easily absorbed into developing systems and organs. Lead can affect almost every organ and system in the body. In children, lead can cause behavior and learning problems, lower IQ and hyperactivity, hearing problems, and anemia. In adults, lead can cause cardiovascular effects, decreased kidney function, and reproductive problems. In addition, lead can result in serious effects to the developing fetus and infant for pregnant women (USEPA 2022b). Among its numerous uses and sources, lead can be found in paint, water pipes, solder in plumbing systems, and in soils surrounding buildings and structures that are painted with lead-based paint (LBP). LBP was primarily used during the same period as ACMs. Pre-1978 commercial and industrial structures are required to implement LBP regulations if the paint is in a deteriorated condition or if remodeling, renovation, or demolition activities disturb LBP surfaces.

Agricultural Chemicals

Many farms use agricultural chemicals such as pesticides and inorganic fertilizers. Sensitive receptors such as residential or school uses in proximity to agricultural uses that use pesticides may

be exposed to increased health risks. Regulated commercial applications of pesticides are documented in an annual report submitted to Napa County. Disturbance of soils with residual quantities of agricultural chemicals due to historic agricultural use can also pose health threats. The northern portion of the project site has previously been in agricultural use.

b. Existing Conditions

Hazardous Materials Sites

The locations where hazardous materials are used, stored, treated and/or disposed of comes to the attention of regulatory agencies through various means, including licensing and permitting, enforcement actions, and anonymous tips. To the extent possible, the locations of these businesses and operations are recorded in database lists maintained by various State, federal, and local regulatory agencies. In addition, federal, State, and local agencies enforce regulations applicable to hazardous waste generators and users, and the Napa County Environmental Health Division tracks and inspect hazardous materials handlers to ensure appropriate reporting and compliance.

Permitted uses of hazardous materials include those facilities that use hazardous materials or handle hazardous wastes in accordance with current hazardous materials and hazardous waste regulations. The use and handling of hazardous materials from these sites is considered low risk, although there can be instances of unintentional chemical releases. In such cases, the site would be tracked in the environmental databases as an environmental case. Permitted sites without documented releases are, nevertheless, potential sources of hazardous materials in the soil and/or groundwater due to accidental spills, incidental leakage, or spillage that may have gone undetected. Some facilities are permitted for more than one hazardous material use and, therefore, could appear in more than one database.

The potential to encounter hazardous materials in soil and groundwater in the city is based on federal, State, and local regulatory databases that identify permitted hazardous materials uses, environmental cases, and spill sites. The DTSC EnviroStor database contains information on properties in California where hazardous substances have been released or where the potential for a release exists. The California State Water Resources Control Board (SWRCB) GeoTracker database contains information on properties in California for sites that require cleanup, such as LUST sites, which may impact water quality, including groundwater.

According to databases of hazardous material sites maintained by the DTSC (EnviroStor) and the SWRCB (GeoTracker), there are no sites within the project site that are still active or need further investigation (DTSC 2022; SWRCB 2022). The nearest registered DTSC or SWRCB site is located approximately 350 feet south of the project site at Napa Junction Road and is an active voluntary cleanup called Canyons Crossing (DTSC 2022).

Use, Transport, and Abatement of Hazardous Materials

The use of hazardous materials is typically associated with industrial land uses. Activities such as manufacturing, plating, cleaning, refining, and finishing frequently involve chemicals that are considered hazardous when accidentally released into the environment.

To a lesser extent, hazardous materials may also be used by various commercial enterprises, as well as residential uses. In particular, dry cleaners use cleaning agents considered to be hazardous materials. Hardware stores typically stock paints and solvents, as well as fertilizers, herbicides, and pesticides. Swimming pool supply stores stock acids, algaecides, and caustic agents. Most

commercial businesses occasionally use commonly available cleaning supplies that, when used in accordance with manufacturers' recommendations, are considered safe by the State of California, but when not handled properly can be considered hazardous. Private residences also use and store commonly available cleaning materials, paints, solvents, swimming pool and spa chemicals, as well as fertilizers, herbicides, and pesticides.

If improperly handled, hazardous materials can result in public health hazards through human contact with contaminated soils or groundwater, or through airborne releases in vapors, fumes, or dust. There is also the potential for accidental or unauthorized releases of hazardous materials that would pose a public health concern. The use, transport, and disposal of hazardous materials and wastes are required to occur in accordance with federal, State, and local regulations. In accordance with such regulations, the transport of hazardous materials and wastes can only occur with transporters who have received training and appropriate licensing. Additionally, hazardous waste transporters are required to complete and carry a hazardous waste manifest, which includes forms, reports, and procedures designed to seamlessly track hazardous waste.

Hazardous materials used and generated in the project site and their waste would be transported via major regional routes, such as State Route (SR) 29, SR 12, SR 37, and Interstate 80. The City does not have direct authority over the transport of hazardous materials on the major roads. Instead, the US Department of Transportation (DOT) and California Highway Patrol (CHP) regulate transportation of hazardous materials by truck.

Schools

School locations require consideration because children are particularly sensitive to hazardous materials exposure. Additional protective regulations apply to projects that could use or disturb potentially hazardous products near or at schools. The California Public Resources Code requires projects that would be located within 0.25 mile of a school and might reasonably be expected to emit or handle hazardous materials to consult with the school district regarding potential hazards. There are no schools within 0.25 mile of the project site. The nearest school, Napa Junction Magnet Elementary School, is approximately 1 mile southwest of the project site.

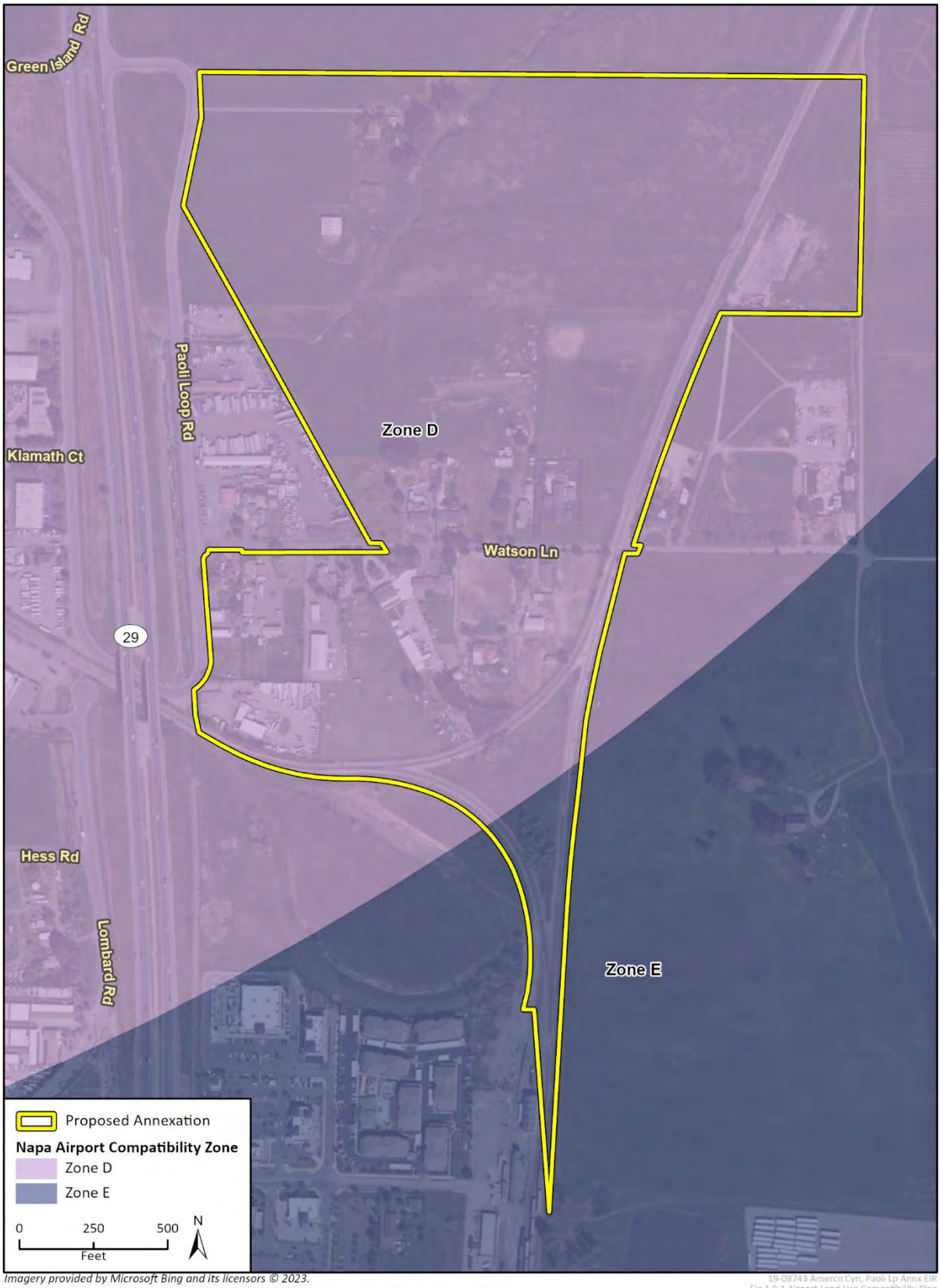
Aviation Hazards

There are no public or private airports in American Canyon; however, the Napa County Airport is located approximately 1.2 miles northwest of the project site. The project site is mostly in Zone D of the Napa County Airport's sphere of influence. All residential uses and uses hazardous to flight are prohibited in Zone D. A small portion of the southern part of the project site is in Zone E, which prohibits noise-sensitive outdoor uses. Figure 4.9-1 shows the Napa County Airport's sphere of influence zones. The Napa County Airport and its Airport Land Use Compatibility Plan (ALUCP) is discussed further in Section 4.9.2, *Regulatory Setting.*

Landfills

No active landfills exist within the city (California Department of Resources, Recycling, and Recovery [CalRecycle] 2022). American Canyon Sanitary Landfill, located just west of the city, was closed in 1995. The closest active landfill to the city is the Potrero Hills Compost Facility (SWIS Number 48-AA-0084), located approximately 15 miles east of the project site (CalRecycle 2022).

Figure 4.9-1 Napa County Airport Compatability Zones



Imagery provided by Microsoft Bing and its licensors © 2023.
Additional data provided by County of Napa Conservation, Development Planning Department, 2010.

19-08743 Amercn Cyn, Paoli Lp Annx EIR
Fig 4.9-1 Airport Land Use Compatibility Plan

4.9.2 Regulatory Setting

a. Federal Regulations

Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA)

These acts established a program administered by the USEPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the "cradle to grave" system of regulating hazardous wastes. Among other items, the use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the Hazardous and Solid Waste Act.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The Act was intended to be comprehensive in encompassing both the prevention of and response to uncontrolled hazardous substances releases. The Act deals with environmental response, providing mechanisms for reacting to emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

Transportation of Hazardous Materials

The Hazardous Materials Transportation Act of 1974, as amended, is the basic statute regulating hazardous materials transportation in the United States. Transportation of hazardous materials is regulated by the United States Department of Transportation (USDOT) Office of Hazardous Materials Safety. The Office of Hazardous Materials Safety formulates, issues, and revises hazardous materials regulations under the Federal Hazardous Materials Transportation Law. The hazardous materials regulations cover hazardous materials definitions and classifications, hazard communications, shipper and carrier operations, training and security requirements, and packaging and container specifications. The hazardous materials transportation regulations are codified in 49 Code of Federal Regulations Parts 100-185.

The hazardous materials transportation regulations require carriers transporting hazardous materials to receive training in the handling and transportation of hazardous materials. Training requirements include pre-trip safety inspections; use of vehicle controls and equipment, including emergency equipment; procedures for safe operation of the transport vehicle; instruction on the properties of the hazardous material being transported; and loading and unloading procedures. All drivers must possess a commercial driver's license as required by 49 Code of Federal Regulations Part 383. Vehicles transporting hazardous materials must be properly placarded. In addition, the carrier is responsible for the safe unloading of hazardous materials at the site, and operators must follow specific procedures during unloading to minimize the potential for an accidental release of hazardous materials.

Lead-Based Paint Elimination Final Rule (24 Code of Federal Regulations)

Governed by the U.S. Housing and Urban Development, regulations for LBP are contained in the Lead-Based Paint Elimination Final Rule 24 Code of Federal Regulations (CFR) 33, which requires sellers and lessors to disclose known LBP and LBP hazards to perspective purchasers and lessees. Additionally, all LBP abatement activities must follow California and federal occupational safety and health administrations. Administrators in California are the California Occupational Safety and Health Administration (CalOSHA) and California Department of Health Services. The federal administrator is the Occupational Safety and Health Administration (OSHA). Only LBP trained and certified abatement personnel can perform abatement activities. All LBP removed from structures must be hauled and disposed of by a transportation company licensed to transport this type of material at a landfill or receiving facility licensed to accept the waste.

Regulations to manage and control exposure to LBP are also described in CFR Title 29, Section 1926.62; and CCR Title 8 Section 1532.1. These regulations cover the demolition, removal, cleanup, transportation, storage, and disposal of lead-containing material. The regulations outline the permissible exposure limit, protective measures, monitoring, and compliance to ensure the safety of construction workers exposed to lead-based materials. CalOSHA's Lead in Construction Standard requires project proponents to develop and implement a lead compliance plan when LBP would be disturbed during construction. The plan must describe activities that could emit lead, methods for complying with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. CalOSHA requires 24-hour notification if more than 100 square feet of LBP would be disturbed.

U.S. Environmental Protection Agency

The USEPA is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are contained in the CFR Titles 29, 40, and 49. Hazardous materials, as defined in the CFR, are listed in 49 CFR 172.101. The management of hazardous materials is governed by the following laws:

1. RCRA of 1976 (42 USC [US Code] 6901 et seq.); Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act) (42 USC 9601 et seq.)
2. Federal Insecticide, Fungicide, and Rodenticide Act (7 USC 136 et. Seq.)
3. Superfund Amendments and Reauthorization Act of 1986 (Public Law 99 499)

These laws and associated regulations include specific requirements for facilities that generate, use, store, treat, and/or dispose of hazardous materials. USEPA provides oversight and supervision for federal Superfund investigation/remediation projects, evaluates remediation technologies, and develops hazardous materials disposal restrictions and treatment standards.

Asbestos Regulations

The USEPA regulations under Title 40 CFR Part 61 regulate the removal and handling of ACMs. The statute is implemented by the Bay Area Air Quality Management District (BAAQMD). The federal Occupational Safety and Health Administration also has a survey requirement under Title 29 CFR that is implemented by CalOSHA under Title 8 California Code Regulations. These regulations require facilities to take all necessary precautions to protect employees and the public from exposure to asbestos.

b. State Regulations

At the State level, agencies such as CalOSHA, the Office of Emergency Services (OES), and the Department of Health Services (DHS) have rules governing the use of hazardous materials that parallel federal regulations and are sometimes more stringent. DTSC is the primary State agency governing the storage, transportation, and disposal of hazardous wastes. DTSC is authorized by the USEPA to enforce and implement federal hazardous materials laws and regulations. DTSC has oversight of Annual Work Plan sites (commonly known as State Superfund sites), sites designated as having the greatest potential to affect human health and the environment.

The primary California State laws for hazardous waste are the California Hazardous Waste Control Law, which is the State equivalent of the Resource Conservation and Recovery Act, and the Carpenter-Presley-Tanner Hazardous Substance Account Act, which is the State equivalent of Comprehensive Environmental Response, Compensation, and Liability Act. State hazardous materials and waste laws are in the CCR Titles 22 and 26. The State regulation concerning the use of hazardous materials in the workplace is included in Title 8 of the California Code Regulations.

Cortese List

Government Code Section 65962.5 requires the DTSC, the State Department of Health Services, the SWRCB, and CalRecycle to compile and annually update lists of hazardous waste sites and land designated as hazardous waste sites throughout the state. The Secretary for Environmental Protection consolidates the information submitted by these agencies and distributes it to each city and county where sites on the lists are located. Before the lead agency accepts an application for any development project as complete, the applicant must consult these lists to determine if the site at issue is included.

The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." The list, or a site's presence on the list, has bearing on the local permitting process as well as on compliance with the California Environmental Quality Act (CEQA). While Government Code Section 65962.5 makes reference to the preparation of a "list," many changes have occurred related to web-based information access since 1992 and this information is now largely available on the websites of GeoTracker and EnviroStor. Those requesting a copy of the Cortese "list" are now referred directly to the appropriate information resources contained on the internet web sites (e.g., GeoTracker and EnviroStor).

Hazardous Materials Worker Safety

Cal/OSHA and the Federal OSHA are the agencies responsible for assuring worker safety by developing and enforcing workplace safety regulations in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340, Chapter 3.2). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

Department of Toxic Substances Control

As a department of the California Environmental Protection Agency, the DTSC is the primary agency in California that regulates hazardous waste, oversees the cleanup of existing contamination, and

identifies ways to reduce hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California Health and Safety Code.

DTSC also administers the California Hazardous Waste Control Law (HWCL) to regulate hazardous wastes. While the HWCL is generally more stringent than RCRA, until the USEPA approves the California program, both State and federal laws apply in California. The HWCL lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

If any soil is excavated from a site containing hazardous materials, it would be considered a hazardous waste if it exceeded specific criteria identified by the DTSC in Title 22, Division 4.5 Section 66261.10 of the CCR. Remediation of hazardous wastes found at a site may be required if excavation of these materials is performed, or if other soil disturbing activities would occur. Even if soil or groundwater at a contaminated site does not have the characteristics required to be defined as hazardous waste, remediation of the site may be required by regulatory agencies subject to jurisdictional authority. Cleanup requirements are determined on a case-by-case basis by the agency taking jurisdiction.

California Fire Code

CCR Title 24, also known as the California Building Standards Code, contains the California Fire Code (CFC), included as Part 9 of that Title. Updated every three years, the CFC includes provisions and standards for emergency planning and preparedness, fire service features, fire protection systems, hazardous materials, fire flow requirements, and fire hydrant locations and distribution. The Fire Code requires two points of vehicular access for any nonresidential building 30 feet tall or higher.

California Department of Pesticide Regulation, Department of Food and Agriculture, and the Department of Public Health

The California Department of Pesticide Regulations, a division of the California Environmental Protection Agency, in coordination with the California Department of Food and Agriculture, and the California Department of Public Health have the primary responsibility to regulate pesticide use, vector control, food, and drinking water safety. The Department of Pesticide Regulations registers pesticides, and pesticide use is tracked by the County. Title 22 is used to regulate both small and large California Department of Public Health water systems.

Handling and Storage of Hazardous Waste

The handling and storage of hazardous materials is regulated on the federal level by the United States Environmental Protection Agency under the CERCLA as amended by the Superfund Amendments and Reauthorization Act (SARA). Under SARA Title III, a nationwide emergency planning and response program was established that imposed reporting requirements for businesses that store, handle, or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. SARA Title III required each state to implement a comprehensive system to inform federal authorities, local agencies, and the public when a significant quantity of hazardous, acutely toxic substances are stored or handled at a facility.

In California, the handling and storage of hazardous materials is regulated by Chapter 6.95 of the California Health and Safety Code. Under Sections 25500 through 25543.3, facilities handling

hazardous materials are required to prepare a Hazardous Materials Business Plan. The business plan provides information to the local emergency response agency regarding the types and quantities of hazardous materials stored at a facility and provides detailed emergency planning and response procedures in the event of a hazardous materials release. In the event that a facility stores quantities of specific acutely hazardous materials above the thresholds set forth by the California code, facilities are required to prepare a Risk Management Plan and California Accidental Release Plan, which provide information on the potential impact zone of a worst-case release and requires plans and programs designed to minimize the probability of a release and mitigate potential impacts.

California Department of Transportation and California Highway Patrol

The California Vehicle Code Section 31303 requires that hazardous materials be transported via routes with the least overall travel time and prohibits the transportation of hazardous materials through residential neighborhoods. In California, the California Highway Patrol (CHP) is authorized to designate and enforce route restrictions for the transportation of hazardous materials. To operate in California, all hazardous waste transporters must be registered with the DTSC. Unless specifically exempt, hazardous waste transporters must comply with the CHP Regulations, the California State Fire Marshal Regulations, and the USDOT Regulations. In addition, hazardous waste transporters must comply with Division 20, Chapter 6.5, Article 6 and 13 of the California Health and Safety Code, and the Title 22, Division 4.5, Chapter 13 of the California Code of Regulations, both of which are administered by the DTSC.

San Francisco Bay Regional Water Quality Control Board

There are nine Regional Water Quality Control Boards (RWQCBs) throughout the State. The San Francisco Bay RWQCB has jurisdiction over the City of American Canyon. Individual RWQCBs function as the lead agencies responsible for identifying, monitoring, and cleaning up Leaking Underground Storage Tanks (LUSTs). Storage of hazardous materials in USTs is regulated by the State Water Board, which oversees the nine RWQCBs.

c. Local Regulations

Napa County Division of Environmental Health

The Napa County Division of Environmental Health (NCDEH) is the Certified Unified Program Agency (CUPA) for pollution prevention in all cities, towns and areas of Napa County including American Canyon. The NCDEH provides regulatory oversight over hazardous materials and hazardous waste programs in the city, unincorporated areas and other cities in Napa County. As the CUPA, the NCDEH operates the following programs: Hazardous Waste Generator, Underground Storage Take (UST), Aboveground Petroleum Act (APSA), Hazardous Materials Business Plan (HMBP)/Hazardous Materials Inventory Statement, California Accidental Release Prevention Program, Technical Reference for Emergency Response, Napa County Area Plan, Methamphetamine Contaminated Property Cleanup Act of 2005, Stormwater Management & Control, Abandoned Vehicle Abatement, Remediation Oversight of Contaminated Properties, and Safe Drinking Water and Toxic Enforcement Act of 1986 (Napa County 2022).

Napa County Airport Land Use Compatibility Plan

The ALUCP governs land use around Napa County Airport. The ALUCP identifies two categories of flight hazards: physical obstructions and land use characteristics. Physical obstructions are associated with tall objects or structures. The ALUCP establishes a height restriction of 35 feet above the ground for objects located within Zone D. Additional height may be permitted under Special Use Permit procedures and approval from the Napa County Airport Land Use Commission (ALUC) as provided for in the Napa County Airport Safety Ordinance 416. Land use characteristics involve uses that may produce hazards to aviation. Specific characteristics prohibited within the airport land use planning boundaries are listed below:

- Glare or distracting lights, which could be mistaken for airport lights
- Sources of dust, steam, or smoke that may impair pilot visibility
- Sources of electrical interference with aircraft communications or navigation
- Any use that may attract large flocks or birds, especially landfills or certain agricultural uses

The ALUCP follows Noise Compatibility Guidelines, as included in Table 2-1 of the ALUCP (Napa County ALUC 1991). New residential uses are not permitted within Zone D without ALUC review. However, the City entered a Settlement Agreement with the ALUC on May 3, 2022. The Settlement Agreement provides that the City will not recommend for approval any application for a residential use in Zone D until an amendment to the ALUCP has been approved or December 31, 2023, whichever occurs first. The Settlement Agreement does not prohibit the City from processing an application for a residential proposal within Zone D.

Napa County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

In 2020, the Napa County prepared an updated Multi-Jurisdictional Hazard Mitigation Plan (HMP) to guide County and City Officials and Special Districts Managers in protecting the people and property within the County from the effects of natural disasters and hazards events. The HMP provides an explanation of prevalent hazards within the County and how hazards may affect the County and participating cities and special districts differently based upon proximities to natural hazards. The HMP also identifies risks to vulnerable assets, both people and property. Most importantly, the mitigation strategy presented in the HMP responds to the identified vulnerabilities within each community and provides prescriptions or actions to achieve the greatest risk reduction based upon available resources.

Napa County Emergency Operations Plan

Napa County updated its Emergency Operations Plan (EOP) in 2017 in coordination with the City of American Canyon, City of Calistoga, and Town of Yountville. The EOP addresses the County's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The EOP is comprised of two main components that 1) describe the overall organizational and operational concepts relative to response and recovery and provide an overview of potential hazards and 2) describe the emergency response organization, action checklists, and reference material. The EOP addresses the following topics: active shooter, civil unrest, dam inundation and earthquakes, flooding, hazardous materials, landslides, major air crash, public health emergencies, terrorism, transportation- trucking, and wildfires and windstorms.

City of American Canyon General Plan

The City of American Canyon General Plan (1994) sets forth the following guiding and implementing policies relevant to hazards and hazardous materials:

Goal 1N: Ensure the compatibility of development within American Canyon with the Napa County Airport.

Objective 1.27: Ensure that lands in American Canyon are developed in a manner which protects them from the noise and operational impacts of, and does not adversely constrain, the Napa County Airport.

> **Policy 1.27.2:** Review all applications for new development, expansion of existing uses, and re-use within Napa County Airport Compatibility Zones "A" through "E" for compliance with the appropriate use and development conditions.

Goal 6A: Maintain a high level of fire protection and emergency services to City/District businesses and residences.

Objective 6.3: Ensure that the Fire District's facility, manpower and equipment needs keep pace with the City's growth.

> **Policy 6.3.1:** Require that City planning staff work closely with Fire District officials to ensure that fie facilities and personnel are expanded commensurably to serve the needs of the City's growing population and development base.
>
> **Policy 6.4.3:** Require, through the development review process, that all structures and facilities subject to the District's jurisdiction adhere to City, state and federal regulatory standards such as the Uniform Building and Fire Codes and other applicable safety guidelines.

American Canyon Municipal Code

The Municipal Code affirms the City's use of uniform standards, which contain provisions such as the Uniform Fire Code, California Health and Safety Code, and Uniform Building Code, and that regulations are administered by appropriate local agencies.

4.9.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

In accordance with Appendix G of the *CEQA Guidelines*, hazards and hazardous materials impacts from development facilitated by the project would be significant if the development would:

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 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; or
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Appendix G of the *CEQA Guidelines* also includes the question regarding if the project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. This potential impact is addressed in Section 4.18, *Wildfire.*

Methodology

This section describes the potential environmental impacts of the project, relevant to hazards and hazardous materials. The impact analysis is based on an assessment of baseline conditions, including locations of hazardous materials, existing contaminated sites, and emergency response and evacuation plan requirements. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities related to the development that would be facilitated by the project. However, the precise increase in hazardous materials transported within the project site and the greater region in and around the City of American Canyon, as a result of buildout of the project cannot be predicted because specific development projects are not yet identified at a level of detail allowing such analysis. This analysis focuses on the potential nature and magnitude of risks associated with the accidental release, storage, transportation, and use of hazardous materials during operations of typical industrial, commercial, and visitor-serving/hotel development projects.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
Threshold 2:	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?

Impact HAZ-1 **DEVELOPMENT FACILITATED BY THE PROJECT COULD INVOLVE THE USE, STORAGE, DISPOSAL, OR TRANSPORTATION OF HAZARDOUS MATERIALS. UPSET OR ACCIDENT CONDITIONS IN THE PROJECT SITE COULD INVOLVE THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT. HOWEVER, IMPLEMENTATION OF MITIGATION MEASURE HAZ-1 WOULD ENSURE THAT IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

Construction

Development facilitated by the project could include new buildings, as well as improvements in the public realm, such as street, sidewalk, and the Newell Drive Extension. The following discussion addresses the use of hazardous materials during construction activities; the potential for release of

existing contaminated materials during construction; and the potential for release of LBP or ACM during demolition or construction.

Use of Hazardous Materials During Construction

Development facilitated by the project may include the temporary transport, storage, and use of potentially hazardous materials including fuels, lubricating fluids, cleaners, or solvents. If spilled, these substances could pose a risk to the environment and to human health. However, the transport, storage, use, or disposal of hazardous materials would be subject to federal, State, and local regulations pertaining to the transport, use, storage, and disposal of hazardous materials, which would assure that risks associated with hazardous materials are minimized. The transport of hazardous materials would be subject to federal, State, and local regulations such as the Toxic Substances Control Act and the Resource Conversation and Recovery Act, Hazardous Waste Control Act, and the Napa County Operational Area Multi-Jurisdictional HMP, as discussed in Section 4.9.2, *Regulatory Setting*. Compliance with these regulations would assure that risks associated with the transport of hazardous materials are minimized and impacts associated with the use of hazardous materials during construction would be less than significant.

Release of Contaminated Materials During Construction

Potential health and environmental impacts related to contaminated groundwater and soil, such as those contaminated by pesticides from historic agricultural uses, may occur during excavation and dewatering for new construction throughout the project site. Development facilitated by the project would require project review by the City prior to issuance of grading and building permits. Upon project review, the City would determine if any special requirements apply based on site conditions. In addition, development facilitated by the project would be subject to regulatory programs such as those overseen by the RWQCB and the DTSC. These agencies require applicants for development on potentially contaminated properties to perform investigation and cleanup if the properties are contaminated with hazardous substances. It is not currently known whether there is any contaminated groundwater or soil; however, due to the history of agricultural use, as well as its proximity to a railroad, there is some potential for contamination to be present. A potentially significant impact hazard could occur if any contaminated soil or groundwater is present on the project site. As such, Mitigation Measure HAZ-1 would be required to address this impact and would require the project applicants for future development, as well as the development of the Newell Drive Extension to implement a Phase I Environmental Site Assessment (ESA) and if necessary, a Phase II ESA. Implementation of a Phase I and Phase II ESA would ensure that any potential impacts from hazardous materials or contaminants are addressed prior to construction.

Grading or excavation on sites with existing contamination may also result in the transport and disposal of hazardous materials if they are unearthed and removed from the site. However, the transport, storage, use, or disposal of hazardous materials would be subject to federal, State, and local regulations pertaining to the transport, use, storage, and disposal of hazardous materials, such as the Toxic Substances Control Act and the Resource Conversation and Recovery Act, Hazardous Waste Control Act, and the Napa County Operational Area Multi-Jurisdictional HMP, as discussed in Section 4.9.2, *Regulatory Setting*. Compliance with these regulations would assure that risks associated with hazardous materials are minimized and impacts would be less than significant.

Asbestos and Lead

The project site has the potential to contain buildings that, due to their age, may contain asbestos and/or LBP. Demolition or redevelopment of these structures could result in health hazard impacts to workers if not remediated prior to construction activities. Lead-based materials and asbestos exposure are regulated by CalOSHA. CCR Section 1532.1 requires testing, monitoring, containment, and disposal of lead-based materials, such that exposure levels do not exceed CalOSHA standards. Under this rule, construction workers (and by extension, neighboring properties) may not be exposed to lead at concentrations greater than 50 micrograms per cubic meter of air averaged over an eight-hour period, and exposure must be reduced to lower concentrations if the workday exceeds eight hours. Similarly, CCR Section 1529 sets requirements for asbestos exposure assessments and monitoring, methods of complying with exposure requirements, safety wear, communication of hazards, and medical examination of workers.

The control of ACM during demolition or renovation of buildings is regulated under the Federal Clean Air Act. The Federal Clean Air Act requires a thorough inspection for asbestos where demolition will occur and specifies work practices to control emissions, such as removing all asbestos-containing materials, adequately wetting all regulated asbestos-containing materials, sealing the material in leak tight containers, and disposing of the asbestos-containing waste material as expediently as practicable (USEPA 2022c).

Friable ACMs are regulated as a hazardous air pollutant under the Clean Air Act. As a worker safety hazard, they are also regulated under the authority of CalOSHA and by BAAQMD. In structures that would be demolished, any ACMs would be abated in accordance with State and Federal regulations prior to the start of demolition or renovation activities, and in compliance with all applicable existing rules and regulations, including BAAQMD rules. These programs would ensure that asbestos removal would not result in the release of hazardous materials to the environment that could impair human health.

Development facilitated by the project would also be required to adhere to BAAQMD Regulation 11, Rule 2, which governs the proper handling and disposal of ACM for demolition, renovation, and manufacturing activities in the Bay Area, and CalOSHA regulations regarding lead-based materials. CCR Section 1532.1, requires testing, monitoring, containment, and disposal of lead-based materials, such that exposure levels do not exceed CalOSHA standards. With adherence to standard conditions of approval, BAAQMD, and CalOSHA policies regarding ACM and LBP, impacts would be less than significant.

Operation

Development facilitated by the project could involve the use, storage, disposal, or transportation of hazardous materials. Some of the potential commercial uses and visitor-serving/hotel uses do not generally involve the use, storage, disposal, or transportation of significant quantities of hazardous materials. They may involve use and storage of some materials considered hazardous, though these materials would be primarily limited to solvents, paints, chemicals used for cleaning and building maintenance, and landscaping supplies. These materials would not be different from household chemicals and solvents already in wide use throughout the city and project site. Residents and workers are anticipated to use limited quantities of products that could contain hazardous materials routinely for periodic cleaning, repair, and maintenance, or for landscape maintenance/pest control. Those using such products would be required to comply with all applicable regulations regarding the disposal of household waste.

The Newell Drive Extension may be used to transport hazardous materials. Nonetheless, the transport of hazardous materials would be subject to federal, State, and local regulations, including the Toxic Substances Control Act and the Resource Conversation and Recovery Act, Hazardous Waste Control Act, and the Napa County Operational Area Multi-Jurisdictional HMP, as discussed in Section 4.9.2, *Regulatory Setting*.

The proposed pre-zoning for sites in the project site includes industrial uses. The project could, therefore, introduce new manufacturing, warehouse, or industrial uses that would sell, use, store, transport, or release substantial quantities of hazardous materials. Businesses that handle certain chemicals over threshold quantities are required to abide by NCDEH programs, such as preparation of a HMBP/Hazardous Materials Inventory Statement. The HMBP consists of general business information; basic information on the location, type, quantity, and health risks of hazardous materials; and emergency response and training plans. Hazardous materials must be reported in a HMBP if they are handled in quantities equal or greater than 55 gallons of a liquid, 200 standard cubic feet of a compressed gas, or 500 pounds of a solid. Mandatory reporting in HMBPs would reduce the potential hazard to workers and the general public near industrial development from reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Similarly, the HMBP would prevent or significantly reduce risks other uses located within proximity to industrial development facilitated by the project.

For those employees that would work with hazardous materials, the amounts of hazardous materials that are handled at any one time are generally small, reducing the potential consequences of an accident during handling. Business-specific practices would be required to comply with federal and State laws to eliminate or minimize the potential consequence of hazardous materials accidents. For example, employees who would work around hazardous materials are required to wear appropriate protective equipment, and safety equipment is routinely available in all areas where hazardous materials are used. California Building and Fire Code requirements detail standards for the safe management of materials that present a moderate explosion hazard, high fire or physical hazard, or health hazards. Compliance with all applicable federal, State and local requirements related to the storage of hazardous materials would maximize containment through safe handling and storage practices described above and provide for prompt and effective cleanup if an accidental release occurs.

Overall, the numerous hazardous material regulations detailed in Section 4.9.2, *Regulatory Setting*, would minimize impacts related to hazardous materials in the project site. Hazardous materials would be required to be transported under DOT regulations. Compliance with existing laws and regulations governing the transport, use, storage, disposal, or release of hazardous materials/wastes would reduce impacts related to exposure of the public or environment to hazardous materials to less than significant.

Mitigation Measures

HAZ-1 Property Assessment – Phase I and II Environmental Site Assessments

Prior to submittal of a discretionary development application or engineering plans for the Newell Drive Extension, the project applicant shall retain a qualified environmental professional, as defined by ASTM E-1527 to prepare a project area Phase I Environmental Site Assessment (ESA) in accordance with standard ASTM methodologies, to assess the land use history of the project site that will be affected.

After the site-specific Phase I ESA has been completed, the determination of specific areas that require a Phase II ESA (i.e., soil, groundwater, soil vapor subsurface investigations) shall be evaluated by the project applicant. The Phase II ESA shall be completed prior to construction and shall be based on the results of the Phase I ESA. Specifically, if the Phase I ESA identifies recognized environmental conditions or potential concern areas, the project applicant shall retain a qualified environmental consultant, California Professional Geologist or California Professional Engineer, to prepare a Phase II ESA of the project site to determine whether the soil, groundwater, and/or soil vapor has been impacted at concentrations exceeding regulatory screening levels for commercial/industrial land uses.

As part of the Phase II ESA, the qualified environmental consultant shall screen the analytical results against the San Francisco Regional Water Quality Control Board environmental screening levels (ESL). These ESLs are risk-based screening levels for direct exposure of a construction worker under various depth and land use scenarios.

If the Phase II ESA for the development site indicates that contaminants are detected in the subsurface at the project site, the project applicant shall take appropriate steps to protect site workers and the public. This may include the preparation of a Soil Management Plan for Impacted Soils prior to project construction.

If the Phase II ESA for the contaminant site indicates that contaminants are present at concentrations exceeding hazardous waste screening thresholds for contaminants in soil and/or groundwater (CCR Title 22, Section 66261.24 Characteristics of Toxicity), the project applicant shall take appropriate steps to protect site workers and the public. This may include the completion of remediation at the project prior to onsite construction. The City shall review and approve the Phase I ESA and Phase II ESA prior to construction (i.e., demolition and grading).

Significance After Mitigation

Mitigation Measure HAZ-1 would ensure that hazardous materials are identified and remediated prior to construction. Impacts would be less than significant after implementation of Mitigation Measure HAZ-1.

Threshold 3:	Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Impact HAZ-2 DEVELOPMENT FACILITATED BY THE PROJECT WOULD NOT RESULT IN THE RELEASE OF POTENTIALLY HAZARDOUS MATERIALS WITHIN 0.25 MILE OF A SCHOOL. THERE WOULD BE NO IMPACT.

There are no schools within 0.25 mile of the project site. The nearest school (Napa Junction Magnet Elementary School) is approximately 1 mile southwest of the project site. The project would, therefore, not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. There would be no impact.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 4:	Would the project be located on a site that is included on a list of hazardous material 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?

Impact HAZ-3 DEVELOPMENT FACILITATED BY THE PROJECT WOULD NOT BE LOCATED ON A SITE INCLUDED ON A LIST OF HAZARDOUS MATERIAL SITES COMPILED PURSUANT TO GOVERNMENT CODE SECTION 65962.5. HOWEVER, IMPACTS COULD OCCUR FROM UNKNOWN HAZARDOUS MATERIALS. COMPLIANCE WITH MITIGATION MEASURE HAZ-1 WOULD MINIMIZE IMPACTS FROM DEVELOPMENT ON PREVIOUSLY UNKNOWN CONTAMINATED SITES AND IMPACTS WOULD BE LESS THAN SIGNIFICANT AFTER MITIGATION.

There are no known LUST sites or DTSC listed cleanup sites in the project site (SWRCB 2022, DTSC 2022). Furthermore, there are no Superfund or other State Responsibility sites in the project site. Nonetheless, it is possible that USTs (which were in use prior to permitting and records being kept) are present in the project site. Tank removal activities could pose both health and safety risks to workers, tank handling personnel, and the public from tank contents or vapors. Potential risks, if any, posed by USTs could be minimized by managing the tank according to existing standards contained in California Health and Safety Code Division 20, Chapters 6.7 and 6.75 (UST Program), as enforced and monitored by the Environmental Programs Division. The extent to which groundwater may be affected by an UST or other potential contamination source depends on the type of contaminant, the amount released, the duration of the release, distance from source, and depth to groundwater. If contamination exceeds regulatory action levels, future developers would be required to undertake remediation procedures prior to grading and development under the supervision of the RWQCB, depending on the nature of any identified contamination.

It is currently unknown whether there are any USTs or other hazardous materials on the project site. As such, if any hazardous materials were to be found on the project site, then there could be a potentially significant impact on the public or the environment. Mitigation Measure HAZ-1 would be implemented to address this potential impact and would require the project applicants for future development, as well as the development of the Newell Drive Extension to implement a Phase I ESA and if necessary, a Phase II ESA. Implementation of a Phase I and Phase II ESA would ensure that any potential hazardous materials, including a UST is identified and remediated prior to construction.

Mitigation Measures

Mitigation Measure HAZ-1 (see Impact HAZ-1).

Significance After Mitigation

Mitigation Measure HAZ-1 would ensure that hazardous materials are identified and remediated prior to construction. Impacts would be less than significant after implementation of Mitigation Measure HAZ-1.

Threshold 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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

Impact HAZ-4 DEVELOPMENT FACILITATED BY THE PROJECT WOULD OCCUR IN THE NAPA COUNTY AIRPORT LAND USE COMPATIBILITY ZONE D. DEVELOPMENT WOULD OCCUR IN COMPLIANCE WITH THE NAPA COUNTY AIRPORT LAND USE COMPATIBILITY PLAN AND IMPACTS WOULD BE FURTHER REDUCED THROUGH ADHERENCE TO GENERAL PLAN POLICIES. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Napa County Airport is located approximately 1.2 miles northwest of the project site and development within the Napa County Airport's sphere of influence is governed by the Napa County ALUCP. As shown in Figure 4.9-1, the southern portion of the project site is in Zone E; however, that area contains the Union Pacific Railroad right-of-way, and no development would occur in that area. As such, no impacts would occur in this area and is not discussed further.

There are no specific development plans within the project site but there are pre-zoned areas that could eventually be developed with commercial, industrial, and visitor-serving/hotel uses that are in Zone D of the Napa County Airport's sphere of influence (see Figure 4.9-1). Residential development is not permitted in Zone D, as discussed in Section 4.9.2, *Regulatory Setting.* There are no new residences proposed by the project; therefore, the uses proposed by the project are allowed in Zone D and the land uses would be consistent with the ALUCP allowable land uses.

In accordance with Public Utilities Code Section 21676, ALUCs must review general and specific plans, including amendments of local jurisdictions for consistency with the Napa County ALUCP. Other uses proposed under the project, such as industrial and visitor-serving, would be reviewed by the Napa County ALUC for consistency with the Napa County ALUCP. The ALUC would review the project for consistency with the Noise Compatibility Guidelines provided in Table 2-1 of the ALUCP, which indicates that light industrial noise exposure is normally or clearly acceptable at under 65 dBA CNEL and marginally acceptable at under 75 dBA CNEL. Table 2-1 does not explicitly include visitor-serving uses but establishes commercial uses to have the same acceptable noise exposure levels as light industrial. Safety hazards would be mitigated by adhering to the ALUCP's sphere of influence zones (e.g., Zone D) through review of physical obstructions and land use characteristics. The ALUCP establishes a 35-foot height restriction for development within Zone D. Additional height may be permitted under stringent Special Use Permit procedures as provided for in the Airport Safety Ordinance #416. Building heights under the project are not currently known but may be proposed at heights greater than 35 feet. As discussed in Section 4.9.2, *Regulatory Setting*, a permit to exceed the height limit as qualified by Ordinance #416 may be obtained after a compatibility determination from the ALUC. Approval from the ALUC would ensure that safety hazards from building height would be resolved.

In addition to review by the Napa County ALUC, General Plan policies would limit the exposure of the public to high noise levels and safety hazards. Specifically, Policy 1.27.2 would support Goal 1N to ensure compatibility of development with the Napa County Airport by reviewing all applications for new development or expansion of existing uses for compliance with allowed uses within Napa County Airport Compatibility Zones. Compliance with the ALUCP, review by the ALUC when required, and General Plan Policy 1.27.2 would reduce airport hazards and excessive noise and impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 6:	Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Impact HAZ-5 DEVELOPMENT FACILITATED BY THE PROJECT WOULD NOT IMPAIR IMPLEMENTATION OF OR PHYSICALLY INTERFERE WITH AN ADOPTED EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would not impair or interfere with emergency response or emergency evacuation. There are no proposed physical changes to roadways or access points that would interfere or impair emergency response or evacuation. The proposed Newell Drive extension would connect SR 29 with Newell Drive, which would improve roadway connections and emergency evacuation. The project site is on existing parcels that are not dedicated to circulation or access, and the devotion of a portion of the project site to Newell Drive would improve emergency access to SR 29 by adding another emergency route. Additionally, the project proposes an overcrossing of the railroad at the northeastern corner of the project site, which would ensure that vehicle traffic on the Newell Drive extension would not be hindered by train traffic.

Development facilitated by the project would not result in population growth; however, the project would add employees, as well as hotel visitors. This increase in employment and visitors would result in additional vehicles in and around the project site. Despite the additional access to SR 29 through the Newell Drive extension, the increase in vehicles could result in incrementally higher congestion on evacuation routes in the city and place additional demand on adopted evacuation routes and other emergency response resources.

Management of emergency response and emergency evacuations plans includes regular updates to the Napa County Operational Area Multi-Jurisdictional HMP and Emergency Operations Plan that incorporate new or proposed developments, such as the development facilitated by the project. Therefore, development facilitated by the project would be reflected in the regular and required updates of emergency and evacuation plans applicable to the City.

In addition, the City would review and approve future projects to ensure that emergency access meets City standards. Development facilitated by the project, as well as all development in the city, must comply with road standards, and are reviewed by the American Canyon Fire Protection District to ensure development would not interfere with evacuation routes or impede the effectiveness of evacuation plans. Compliance with General Plan policies identified in Section 4.9.2, *Regulatory Setting*, would further ensure that development facilitated by the project would not impair the implementation or physical interference with evacuation or emergency response plans. Policies 6.3.1 and 6.4.3 require growth in the city to remain commensurate with available emergency services, such as fire protection. Additionally, as discussed in Section 4.14, *Public Services*, development facilitated by the project would be required to pay an impact fee that is utilized for the provision of resources for the American Canyon Fire Department, which would help provide emergency services to the City.

Therefore, for the reasons identified above, the project would not impair implementation of or physically interfere with evacuation or emergency response plans. The impact related to emergency response and evacuation plans would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.9.4 Cumulative Impacts

The geographic scope of the cumulative hazards and hazardous materials analysis is the City of American Canyon and the surrounding vicinity. Adverse effects associated with many hazards and hazardous materials impacts tend to be localized; therefore, an area generally within a 0.25-mile radius would be the area most affected by activities in combination with the project. Because the project would have no impact related to the release of hazardous materials within 0.25 mile of a school, the project would not contribute to a cumulative impact. Therefore, cumulative impacts related to the release of hazardous materials within 0.25 mile of a school are not discussed further.

Because cumulative projects would also transport, use, and dispose of hazardous materials (similar to the project) cumulative projects have the potential to create a significant hazard to the public through the routine transport, use, disposal of hazardous materials. Hazards related to transport of hazardous materials have a wider cumulative area, but are uniformly governed by federal, State, and local regulations, including the Toxic Substances Control Act, the Resource Conversation and Recovery Act, Hazardous Waste Control Act, and the Napa County Operational Area Multi-Jurisdictional HMP. Because all cumulative projects would be required to adhere to these regulations, cumulative impacts would be less than significant.

Cumulative projects may have a cumulative impact from the release of contaminated materials during construction (on sites that may contain hazardous materials, such as pesticides or unknown USTs) or because the cumulative project is listed as a hazardous material site pursuant to Government Code Section 65962.5. The project would mitigate this impact by requiring Mitigation Measure HAZ-1, which would remediate impacts prior to ground disturbance. Because the project would ensure that any hazards from hazardous materials on the project site are remediated, the project's contribution to a cumulative impact would be less than considerable.

Cumulative projects within the Napa County Airport Influence Area are reviewed for consistency with the Napa County ALUCP at the time of discretionary entitlement. Because cumulative projects follow the Napa County ALUC procedures (summarized in Impact HAZ-4), cumulative impacts would be less than significant.

Cumulative projects have the potential to impair an emergency response/evacuation plan. All cumulative projects would adhere to the Napa County Operational Area Multi-Jurisdictional HMP and Napa County EOP. Prescriptions and actions to reduce risks from hazards in the Napa County Operational Area Multi-Jurisdictional HMP would reduce the cumulative impact of the project and cumulative projects by ensuring that Napa County is prepared to mitigate hazards, including emergency response. Similarly, the EOP includes details on countywide emergency response, including emergency access and evacuation, which would reduce the cumulative impact to

emergency access and evacuation. Therefore, adherence to the plans would ensure that the cumulative impact to emergency response would be less than significant.

4.10 Hydrology and Water Quality

This section summarizes the regional and local watershed characteristics, water quality, drainage and infiltration patterns, and flood hazards and analyzes the impacts on hydrology and water quality due to the project. Water supply and adequacy of wastewater conveyance and treatment are discussed in Section 4.17, *Utilities and Service Systems*. Impacts related to wetlands and waters of the U.S. are discussed in Section 4.4, *Biological Resources*.

4.10.1 Setting

a. Surface Hydrology

Natural Drainage Systems

The City of American Canyon is located along the alluvial marshlands of the east bank on the Napa River and the lower slopes of the Sulphur Springs Mountain Range. The watersheds within the City include tributary areas of five creeks. The creeks all drain in a westerly direction from the rolling hills in the east to the Napa River on the west. The existing drainage system in the City consists of natural creeks in the hilly areas, with improved channels in the upland areas and levied channels and sloughs in the lower marshlands near the Napa River.

Developed subdivisions in the City are served by piped drainage facilities that discharge into the creek channels. Watershed boundaries follow ridgelines in the upper elevations, and follow levees, roadways, and other manmade obstructions in the upland and lower watershed areas. The watershed drainages of the five primary creeks in the City are American Canyon Creek, Walsh Creek, North Slough, Fagan Creek, and Sheehy Creek. North Slough is located on the project site and is shown in Figure 4.4-1 in Section 4.4, *Biological Resources*. North Slough is part of the Napa River watershed and drain runoff from the lands within and surrounding the project site. Other potentially jurisdictional waters in the project site have been historically diverted from their natural topographic drainages (i.e., the typical gradient being downhill and flowing north to south or east to west). These potentially jurisdictional waters originate on the property with vineyards to the east and are diverted through a system of culverts and ditches onto and through the project site, flowing into North Slough.

Man-Made Drainage Systems

The City is served by an extensive man-made storm drainage system including pipe networks, ditches, and culverts. Major storm drainage infrastructure including drain pipes, concrete channels, culverts, and swales (which convey storm drainage to Rio Del Mar Creek, American Canyon Creek or North Slough, before conveying it to the Napa River and then to the San Francisco Bay) within the City is owned and operated by the City of American Canyon and maintained by the City's Public Works Department. For further information on stormwater management infrastructure, see *Section 4.17, Utilities and Service Systems*.

b. Regional Groundwater

The project site is located within the 40,500-acre Napa-Sonoma Lowlands Groundwater Subbasin (Department of Water Resources [DWR] 2022a). The subbasin consists primarily of alluvium and alluvial fans that were deposited at and near the mouths of the Napa River and Sonoma Creek

adjacent to San Pablo Bay. To a lesser extent, portions of the City are underlain by sandstone and mudstone/shale, of which the former comprises some of the more productive water-bearing units within the region. The City of American Canyon does not maintain any municipal groundwater wells; however, as many as 41 private wells have been identified that draw from the subbasin within and near the City. Nearly all of these wells reported relatively low flow rates, ranging from 0.5 gallon per minute (gpm) to 45 gpm.

The Sustainable Groundwater Management Act (SGMA) was enacted in 2014 as comprehensive legislation aimed at strengthening local control and management of groundwater basins throughout California. SGMA requires local groundwater sustainability agencies to be formed and groundwater management plans to be developed for all medium and high priority basins. The DWR considers the Napa-Sonoma Valley Lowlands Groundwater Subbasin a very low priority subbasin and it is not subject the rules and regulations of the SGMA including the adoption of a Groundwater Sustainability Plan (Napa County 2022).

c. Surface Water Quality

The Napa River is listed as impaired on the Clean Water Act 303(d) list for pathogens and sediment/siltation. These pollutants are a result of agriculture, urban runoff, and storm sewers; land development; and construction. The Napa River was previously listed on the Clean Water Act 303(d) list for nutrients; however, the RWQCB de-listed the Napa River for this pollutant in 2014 (Resolution Number R2-2014-0006).

d. Groundwater Quality

Groundwater quality in the Napa-Sonoma Lowlands Subbasin is generally suitable for municipal and agricultural uses. Primary constituents of concern are high total dissolved solids (TDS), nitrate, boron, and organic compounds. High TDS are typically found in wells in areas closest to the San Francisco Bay. The DWR indicates that the Napa-Sonoma Lowlands Subbasin shows a TDS range of 50 to 300 milligrams per liter (mg/L), with an average of 185 mg/L (American Canyon 2016). The City does not currently use groundwater as a source of water and the City did not pump groundwater at any time between 2011 and 2015. Previous studies of groundwater productivity in and near the City have indicated that: (1) usable groundwater resources in the City may be limited; (2) wells at depths up to 200 feet produce approximately 45 gallons per minute, with some not reliable in the dry months of the year; and (3) deeper wells (approximately 400 feet) have been found to be brackish and not sustainable (American Canyon 2015).

e. Potable Water Quality in the City of American Canyon

According to American Canyon's 2021 Annual Water Quality Report, contaminants that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife;
- Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming;
- Pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses;

- Organic chemical contaminants, including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems; and
- Radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

Continuous monitoring, physical barriers to runoff, and proper water treatment are used throughout the water treatment and water conveyance system to maintain water quality standards. The City tests multiple water quality parameters of drinking water that cover both primary public health and secondary aesthetic (taste, odor, and color) requirements, and include testing of lead, fluoride, selenium, nitrate, and turbidity. Except for intermittent Total Trihalomethanes (TTHM), all required testing indicate that the City's drinking water meets or exceeds all primary drinking water standards, which are set by the federal Safe Drinking Water Act, and the State Water Resource Control Board Division of Drinking Water (SWRCBDDW) (American Canyon 2022).

Section 303(d) of the 1972 Federal Clean Water Act requires that states develop a list of water bodies that do not meet water quality standards, establish priority rankings for waters on the list and develop action plans, called Total Maximum Daily Loads (TMDL), to improve water quality. The list of impaired water bodies is typically revised every two years. The Napa River is the only listed waterbody in the City. There are no listed waterbodies in the project site (United States Environmental Protection Agency [USEPA] 2022).

f. Flood Hazards

The Federal Emergency Management Agency (FEMA) delineates regional flooding hazards as part of the National Flood Insurance Program. FEMA identifies flood hazard risks through its Flood Insurance Rate Map (FIRM) program. Higher flood risk zones are called Special Flood Hazard Areas (SFHA); these areas have a 1 percent chance or greater of flooding in any given year (also called the 100-year flood). According to FEMA's FIRM of the project site, the project site is not in a flood zone (FEMA 2016). According to the California Department of Conservation Tsunami Inundation Maps, the project site is not located within a Tsunami Inundation Zone. The nearest body of water that is subject to seiche is Lake Frey, located approximately 7 miles northeast of the project site.

4.10.2 Regulatory Setting

a. Federal Regulations

Federal Clean Water Act

In 1972, the 1948 Federal Water Pollution Control Act was amended to require that the discharge of pollutants into waters of the U.S. from any point source be effectively prohibited unless the discharge follows a National Pollutant Discharge Elimination System (NPDES) permit. This amendment became the basis for what was by 1977 referred to as the Clean Water Act (CWA). In 1987, the CWA was again amended to require that the USEPA establish regulations for the permitting of stormwater discharges (as a point source) by municipal and industrial facilities and construction activities under the NPDES permit program. The regulations require that discharges to

surface waters from municipal separate storm sewer system (MS4)[1] be regulated by an NPDES permit.

Regulations on storm water discharges from MS4s were implemented with a two-phased program. Phase I, promulgated by USEPA in November 1990, requires NPDES permits for storm water discharges from MS4s serving populations of 100,000 or greater, construction sites disturbing greater than 5 acres of land, and ten categories of industrial activities. The USEPA recognized that smaller construction projects (disturbing less than 5 acres) and small MS4s (serving populations smaller than 100,000) were also contributing substantially to pollutant discharges nationwide. Therefore, to further improve storm water quality, the USEPA promulgated the NPDES Phase II program (*Federal Register* Vol. 64, No. 235, December 8, 1999). The Phase II regulations became effective on February 7, 2000, and require NPDES permits for storm water discharges from regulated small MS4s and for construction sites disturbing between 1 acre and 5 acres of land.

CWA Section 208, Areawide Waste Treatment Management

Section 208 of the CWA required all states to address water quality degradation from nonpoint source pollution and to develop either regulatory or non-regulatory programs to control nonpoint source pollution. A state's Section 208 program must meet USEPA approval.

CWA Section 303, List of Water Quality Limited Segments

Section 303 of CWA requires States to adopt water quality standards for water bodies and have those standards approved by USEPA. Water quality standards consist of designated beneficial uses for a particular water body (e.g., wildlife habitat, agricultural supply, and fishing), along with water quality criteria necessary to support those uses. Water quality criteria include quantitative set concentrations, levels, or loading rates of constituents—such as pesticides, nutrients, salts, suspended sediment, and fecal coliform bacteria—or narrative statements that represent the quality of water that support a particular use.

When designated beneficial uses of a particular water body are being compromised by water quality, Section 303(d) of the CWA requires identifying and listing that water body as impaired. Once a water body has been deemed impaired, a TMDL must be developed for each impairing water quality constituent. A TMDL is an estimate of the total load of pollutants from point, non-point, and natural sources that a water body may receive without exceeding applicable water quality standards (often with a “factor of safety” included, which limits the total load of pollutants to a level well below that which could cause the standard to be exceeded). Once established, the TMDL is allocated among current and future dischargers into the water body.

CWA Section 304(a), Water Quality Criteria

Section 304(a)(1) of the CWA requires the USEPA to develop, publish and periodically revise criteria for protection of water quality and human health that reflect the latest scientific knowledge. Water quality criteria developed under section 304(a) are based on data and scientific judgments on the relationship between pollutant concentrations and environmental and human health effects. Section 304(a) also provides guidance to states in adopting water quality standards.

[1] An MS4 is a conveyance or system of conveyances designed or used to collect or convey stormwater (e.g., storm drains, pipes, ditches) that are that owned by a state, city, town, or other public entity and discharge to waters of the United States.

CWA Section 402, National Pollutant Discharge Elimination System

Direct discharges of pollutants into waters of the U.S. are not allowed, except in accordance with the NPDES program established in Section 402 of the CWA. Non-point source discharges to stormwater are regulated under stormwater NPDES permits for municipal stormwater discharges, industrial activities, and construction activities. These permits require development of and adherence to a Stormwater Control Plan (SCP) or Storm Water Pollution Prevention Plan (SWPPP).

National Flood Insurance Program

Congress acted to reduce the costs of disaster relief by passing the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts was to reduce the need for large, publicly funded flood control structures and disaster relief efforts by restricting development in floodplains. FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in a floodplain. FEMA issues FIRMs of communities participating in the NFIP. These maps delineate flood hazard zones in the community.

b. State Regulations

Porter-Cologne Water Quality Control Act

The federal CWA places the primary responsibility for the control of water pollution and planning the development and use of water resources with the states, although it does establish certain guidelines for the states to follow in developing their programs. California's primary statute governing water quality and water pollution is the Porter-Cologne Water Quality Control Act of 1969 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resource Control Board (SWRCB) and the nine Regional Water Quality Control Board (RWQCBs) broad powers to protect water quality and is the primary vehicle for the implementation of California's responsibility under the federal CWA. The Porter-Cologne Act grants the SWRCB and RWQCBs the authority and responsibility to adopt plans and policies, to regulate discharges to surface water and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, oil, or petroleum product. Each RWQCB must formulate and adopt a water quality control plan for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that an RWQCB may include in its region a regional plan with water discharge prohibitions applicable to particular conditions, areas, or types of waste. The project site is within the jurisdictional boundaries of the San Francisco RWQCB (Region 2).

Phase II Municipal Storm Water Permit

The Municipal Storm Water Permitting Program regulates storm water discharges from MS4s. The NPDES MS4 permits in California are issued in two phases by the SWRCB and RWQCBs. Phase I MS4 permits are issued by the RWQCBs to medium (i.e., serving between 100,000 and 250,000 people) and large (i.e., serving more than 250,000 people) municipalities. Most of these permits are issued to a group of co-permittees encompassing an entire metropolitan area. The Phase II MS4 Permit is issued by the SWRCB and is applicable to smaller municipalities (i.e., populations of less than 100,000 people) and nontraditional small MS4s (e.g., military bases, public campuses, and prison and hospital complexes). The Phase II MS4 Permit (*Waste Discharge Requirements [WDRs] for Storm*

Water Discharges from Small Municipal Separate Storm Sewer Systems [MS4s] General Permit], Order No. 2013-0001-DWQ, NPDES No. CAS000004) became effective on July 1, 2013 and covers Phase II permittees statewide. The Phase II MS4 Permit designated the City of American Canyon as a regulated small MS4 (Attachment A of the MS4 Permit).

The Napa Countywide Stormwater Pollution Prevention Program (NCSPPP) is a joint effort of the County of Napa, cities of American Canyon, Napa, St. Helena and Calistoga, and the Town of Yountville to comply with state and federal regulations including the Phase II MS4 Permit. Although the individual entities of NCSPPP carry out their own individual stormwater pollution prevention programs, the NCSPPP provides for the coordination and consistency of approaches between the individual participants and documents their efforts in annual reports. In addition, the Bay Area Stormwater Management Agencies Association (BASMAA) *Design Guidance for Stormwater Treatment and Control for Projects in Marin, Sonoma, Napa and Solano Counties* (Post-Construction Manual) provides a manual for future projects to use, in order to comply with the Phase II MS4 Permit requirements. As described in further detail below, in the *Local Regulation* subsection, the City of American Canyon requires that a SCP be required that meets the criteria of the BASMAA Post-Construction Manual for development projects subject to post construction requirements.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014 is a comprehensive three-bill package that Governor Jerry Brown signed into California state law in September 2014. The SGMA provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for State intervention, if required to protect the resource. The plan is intended to ensure a reliable groundwater supply for California for years to come. The SGMA requires governments and water agencies of high- and medium-priority basins to halt overdrafts of groundwater basins. The SGMA requires the formation of local groundwater sustainability agencies (GSAs) that are required to adopt Groundwater Sustainability Plans (GSPs) to manage the sustainability of the groundwater basins.

The project site is in the Napa Sonoma Lowlands Subbasin of the Napa-Sonoma Valley Groundwater Basin (DWR 2022a). The Napa-Sonoma Lowlands Subbasin is classified as very low priority by the DWR (County of Napa 2022). Since the Napa Sonoma Lowlands Subbasin is designated as very low priority basin, the basin is not subject to SGMA.

General Construction Activity Storm Water Permit

The *General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ, NPDES No. CAS000002, as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ (Construction General Permit), adopted by the SWRCB, regulates construction activity that includes clearing, grading, and excavation resulting in soil disturbance of at least one acre of total land area. The Construction General Permit authorizes the discharge of stormwater to surface waters from construction activities. The Construction General Permit requires that all developers of land where construction activities will occur over more than 1 acre do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three risk levels established in the General Permit;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States;

- Develop and implement a construction SWPPP that specifies Best Management Practices (BMPs) that will reduce pollution in stormwater discharges to the Best Available Technology/ Economically Achievable/Best Conventional Pollutant Control Technology standards;
- Perform inspections and maintenance of all BMPs; and
- Conduct stormwater sampling, if required based on risk level.

To obtain coverage under the Construction General Permit, a project applicant must electronically file all permit registration documents with the SWRCB prior to the start of construction. Permit registration documents must include a:

- Notice of Intent (NOI);
- Risk Assessment;
- Site map;
- Construction SWPPP;
- Annual fee; and
- Signed certification statement.

Typical BMPs contained in construction SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, and control pollutants from construction materials. The construction SWPPP must also include a discussion of the program to inspect and maintain all BMPs.

General Permit for Stormwater Discharges Associated with Industrial Activities (Industrial General Permit)

Section 402 of the Federal Clean Water Act requires industries that fall under certain Standard Industrial Classification (SIC) codes and that discharge stormwater into a storm drain system or to surface waters, obtain an NPDES permit (SWRCB 2022). SIC Codes include manufacturing facilities; transportation facilities; hazardous waste treatment, storage, or disposal facilities; and recycling facilities. In California, these industrial facilities may comply with the Clean Water Act Section 402 by applying for coverage under the State's General Permit for Stormwater Discharges Associated with Industrial Activities (Industrial General Permit) or by applying for an individual NPDES Permit.

The Industrial General Permit is an NPDES permit that regulates stormwater discharges from any facility associated with 10 broad categories of industrial activities. These categories of industrial activities are based on the SIC codes. The SWRCB and RWQCB enforce the Industrial General Permit. The Industrial General Permit requires the implementation of Best Available Technology Economically Achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) to achieve performance standards, which include effluent limitations, as well as the development of an operational SWPPP and a monitoring plan. The Industrial General Permit set effluent limitations through numeric action levels and requires Exceedance Response Actions if there is exceedance of the numeric action levels. The operational SWPPP identifies the site-specific sources of pollutants and describes the best management practices implemented at the facility to prevent dry weather runoff and to reduce pollutants in storm water discharges.

Stormwater Guidance Publications

California Stormwater Quality Association (CASQA), a professional organization, has published guidance for stormwater management. The organization's Stormwater Best Management Handbook

provides guidance for compliance with State stormwater regulations for construction. The Handbook provides detailed monitoring guidance and inspection forms, including a SWPPP Template. The Handbook addresses selection and implementation of BMPs to eliminate or to reduce the discharge of pollutants and control or reduce impacts to the hydrologic cycle associated with development and redevelopment activities. The California Department of Transportation (Caltrans) also has published a Stormwater Quality Handbook Construction Site Best Management Practices Manual that provides similar guidance for transportation projects.

c. Local Regulations

San Francisco Regional Water Quality Control Board

The San Francisco RWQCB issues Municipal Regional NPDES permits (Order No. R4-2021-0105) that allow the discharge of stormwater into local creeks and the Pacific Ocean. All municipalities within the San Francisco Bay Region which discharge wastewater to surface waters are currently regulated by NPDES permits issued by the Regional Water Board. Industrial, commercial, cleanup or other operations which discharge wastes directly into municipal, or other publicly owned wastewater collection systems, are not required to obtain an NPDES permit from the Regional Water Board but must comply with waste discharge requirements issued by the appropriate public entity.

City of American Canyon General Plan

The current City of American Canyon General Plan sets forth the following guiding and implementing policies relevant to hydrology and water quality:

Goal 10 : Protect the lives and property of American Canyon's residents and visitors from flood hazards.

Objective 10.1: Design both new development and redevelopment projects in a manner that minimizes hazards associated with flooding.

> **Policy 10.1.1:** Retain and enhance natural watercourses, including perennial and intermittent streams, as the City's primary flood control channels whenever feasible.
>
> **Policy 10.1.4:** Ensure that stormwater drainage is designed for peak flow conditions.
>
> **Policy 10.1.5:** Prohibit the development of structures designed for human occupancy within the 100-year floodplain, unless flood hazards are adequately mitigated. Mitigation can be accomplished by building foundations a minimum of one (1) foot above the 100- year flood elevation, or by other means approved by the City Engineer.
>
> **Policy 10.1.12:** Require that proposed developments within the 100-year floodplain submit information regarding the flood hazard prepared by a qualified Civil Engineer or Hydrologist.
>
> **Policy 10.1.13:** Require that proposed developments within the 100-year floodplain submit plans to adequately mitigate flood hazards and demonstrate that such improvements will not create or increase downstream or upstream flood hazards.

American Canyon Municipal Code

Chapter 14.28 of the American Canyon Municipal Code (Stormwater and Pollution Discharge Control Program) establishes local regulations to secure benefits from the use of stormwater as a resource and to protect and enhance watercourses, fish, and wildlife habitat. Specifically, the Municipal Code include the following requirements that would apply to the project.

- Section 14.28.080 identifies requirements for construction, including requiring appropriate erosion and sedimentation controls in accordance with guidance provided in the "Standards for Erosion and Sedimentation Control" and the "Erosion and Sedimentation Control Handbook" published by the Association of Bay Area Governments (ABAG). This section also identifies that City Public Works may establish controls on the volume and rate of stormwater runoff from new developments and redevelopment, as appropriate, to minimize peak flows or total runoff volume.
- Section 14.28.081 identifies the BMPs that shall be implemented to prevent the discharge of sediment, construction wastes or contaminants from construction materials, tools and equipment from entering a city storm drain or watercourse. This section also identifies that an Erosion and Sediment Control Plan shall be required for certain projects.
- Section 14.28.082 identifies that the City may establish volume and rate of stormwater controls from new developments and redevelopment as may be appropriate to minimize peak flows or total runoff volume, and to mimic the pre-development site hydrology. This section also includes the requirement that qualifying projects prepare a SCP that meets the criteria in the BASMAA Post Construction Manual. The SCP must include postconstruction stormwater treatment measures such as bioretention facilities and source control BMPs, and must also address ongoing maintenances of those facilities.

Stormwater Management

The City requires that a Preliminary Hydrology and Hydraulics Study be prepared to determine whether there are significant impacts. Storm drain design is required to conform to Section 4 of the City's Engineering Standard Plans and Specifications for Public Improvements. Those standards require, among other things, that post-development runoff be no greater than 90 percent of pre-development runoff.

4.10.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on hydrology and water quality if it would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater 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:
    a. Result in substantial erosion or siltation on- or off-site;
    b. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site;

c. 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

d. Impede or redirect flood flows.

4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Methodology

The impact analysis is based on an assessment of baseline conditions for the project site, including topography, watersheds, surface waters, groundwater, and floodplains. This analysis identifies potential impacts based on the interaction between the existing environment and construction, operation, and maintenance activities related to project development.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

IMPACT HWQ-1 THE PROJECT WOULD NOT VIOLATE WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS, OR OTHERWISE SUBSTANTIALLY DEGRADE SURFACE OR GROUNDWATER QUALITY. INDIVIDUAL PROJECTS WOULD BE REQUIRED TO COMPLY WITH BMPS IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS AND PERMIT REQUIREMENTS, AS WELL AS MITIGATION MEASURES HYD-1 AND HYD-2. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Construction

Construction activities associated with the project would include construction of new development and the Newell Drive Extension. Construction activities could result in soil erosion due to earth-moving activities such as excavation, grading, soil compaction and moving, and soil stockpiling. The project sites vary in elevation and slope. Types of pollutants contained in runoff may include sediment and other existing contaminants, such as nutrients, pesticides, herbicides, trace metals, trash, and hydrocarbons that can attach to sediment and be transported downstream through erosion via overland flow, ultimately entering nearby waterways and contributing to degradation of water quality.

Construction activities associated with the project could result in soil erosion during earth-moving activities, including excavation, grading, soil compaction and moving, and soil stockpiling.

Specific development facilitated by the project and the Newell Drive Extension would be required to comply with State and local water quality regulations designed to control erosion and protect water quality during construction. This includes compliance with the requirements of the Construction General Permit, which requires preparation and implementation of a construction SWPPP for projects that disturb one acre or more of land. The construction SWPPP would control the discharge of pollutants, including sediment, into local surface water drainages. The construction SWPPP would specify the storm water monitoring and construction BMPs required to minimize water quality degradation. Construction BMPs would include, but would not be limited to, Erosion Control and Sediment Control BMPs designed to minimize erosion and retain sediment on site, and Good

Housekeeping BMPs to prevent spills, leaks, and off-site discharge of construction debris and waste. BMPs may include measures such as the installation of silt fences to trap sediments, slope stabilization, and regular sweeping of construction sites to control dust. In addition, future projects would be required to comply with Section 14.28.080 of the American Canyon Municipal Code, which requires erosion and sediment control BMPs to reduce the discharge of sediment and other particulate matter into the City's groundwater and surface water system. Implementation of the required BMPs associated with the Construction General Permit and the American Canyon Municipal Code would reduce the potential for eroded soil and any contaminants attached to that soil to contaminate a waterbody following a storm event.

In addition, construction activities could utilize hazardous materials such as diesel fuel, gasoline, lubricant oils, hydraulic fluid, antifreeze, transmission fluid, cement slurry, and other fluids required for the operation of construction vehicles or equipment. These types of hazardous materials are not acutely hazardous; and storage, handling, use, and disposal of these materials are regulated by county, State, and federal regulations and compliance with applicable standards identified in Section 4.10.2, *Regulatory Setting*, including the Construction General Permit. The Construction General Permit includes the implementation of the construction SWPPP, which would include Good Housekeeping BMPs to prevent spills, leaks, and off-site discharge of construction debris and waste. Transport of these materials to and from construction sites would also be regulated under multiple authorities as discussed in Section 4.8, *Hazards and Hazardous Materials*. Direct contamination of surface water from construction runoff is unlikely given required adherence to relevant standards and regulations.

Compliance with existing regulations and implementation of the required construction SWPPP and construction BMPs discussed above would reduce the risk of water degradation from soil erosion and other pollutants related to construction activities. Furthermore, Mitigation Measure HYD-1 would require development and implementation of a SWPPP to outline site-specific stormwater quality control measures (such as BMPs) during construction activities to prevent pollutants from entering downstream waterways. Implementation of Mitigation Measure HYD-1, as well as regulatory requirements, would minimize potentially significant water quality impacts during construction to a less than significant level.

Operation

Runoff from operation of future development and the Newell Drive Extension would be regulated by Section 14.28 of the American Canyon Municipal Code, which ensure compliance with the Phase II MS4 Permit. Section 14.28.082 of the American Canyon Municipal Code would require an SCP that meets the criteria in the BASMAA Post Construction Manual for all future development and the Newell Drive Extension. The SCP must include site design measures and treatment facilities that would minimize impervious surfaces, retain or detain stormwater, slow runoff rates, and reduce pollutant in post-development runoff (BASMAA 2019). Implementation of the SCP would reduce impacts to water quality.

Development that includes industries that fall under certain SIC codes and that discharge stormwater into a storm drain system or to surface would need to comply with the Industrial General Permit, which requires the development of a site-specific operational SWPPP and monitoring plan. Implementation of the operational SWPPP would reduce the risk of water degradation on site and off site from soil erosion and other pollutants related to project operation because an operational SWPPP requires the design, installation, and maintenance of post-construction stormwater controls. The operational SWPPP identifies the site-specific sources of

pollutants and describes the best management practices implemented at the facility to prevent dry weather runoff and to reduce pollutants in storm water discharges. In addition, the Industrial General Permit requires the implementation of BAT and BCT to achieve performance standards. Water quality performance standards would be established by the numeric action levels in the Industrial General Permit. The Industrial General Permit would require dischargers to develop and implement Exceedance Response Actions when a numeric action levels exceedance occurs during a reporting year.

Furthermore, Mitigation Measure HYD-2 would require the following: (1) that the Stormwater Control Plan be reviewed and verified by the City of American Canyon to ensure the proposed stormwater controls are adequate pursuant to the requirements Order No. R2-2015-0049 (or more recent permit) and (2) that an operation and maintenance program is in place to ensure the long-term functionality of the stormwater controls. The various RWQCBs have evaluated the effectiveness of the types of BMPs required by Mitigation Measure HYD-2 and have determined that BMPs are effective in protecting receiving waters. Thus, there is a high degree of certainty that the project would not exacerbate the existing water quality status of the Napa River or any other water bodies. Impacts would be less than significant with implementation of Mitigation Measure HYD-2 and regulatory requirements.

Mitigation Measures

HYD-1 Water Pollution Prevention Plan

Prior to issuance of grading permits for the project, the applicant shall submit to the City of American Canyon for review and approval a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the requirements of the statewide Construction General Permit. The SWPPP shall be designed to address the following objectives: (1) all pollutants and their sources (e.g., runoff), including sources of sediment associated with construction, construction site erosion, and all other activities associated with construction activity, are controlled; (2) where not otherwise required to be under a Regional Water Quality Control Board (RWQCB) permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated; (3) site Best Management Practices (BMPs) (e.g., silt fencing, street sweeping, routine inspection, etc.) are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non-stormwater discharges from construction activity; and (4) stabilization BMPs are installed to reduce or eliminate pollutants after construction are completed. The SWPPP shall be prepared by a qualified SWPPP developer. The SWPPP shall include the minimum BMPs required for the identified Risk Level. BMP implementation shall be consistent with the BMP requirements in the most recent version of the California Stormwater Quality Association (CASQA) Stormwater Best Management Handbook–Construction or the California Department of Transportation (Caltrans) Stormwater Quality Handbook Construction Site BMPs Manual. The SWPPP shall be implemented during construction to the satisfaction of the City.

HYD-2 Stormwater Control Plan

Prior to the issuance of building permits, the project applicant shall submit a Stormwater Control Plan to the City of American Canyon for review and approval. The plan shall be developed using the California Stormwater Quality Association (CASQA) “New Development and Redevelopment Handbook” and include the applicable provisions of Section C.3 of the San Francisco Bay Regional Water Quality Control Board (RWQCB) Municipal Regional Permit (Order No. R2-2015-0049, NPDES Permit No. CAS612008 (or more recent permit). The Stormwater Control Plan shall identify pollution

prevention measures and Best Management Practices (BMPs) to control stormwater pollution from operational activities and facilities and provide maintenance in perpetuity. The Stormwater Control Plan shall include Low Impact Development (LID) design concepts, as well as concepts that accomplish a "first flush" objective that would remove contaminants from the first 2 inches of stormwater before it enters area waterways. The project applicant shall also prepare and submit an Operations and Maintenance Agreement to the City, identifying procedures to ensure stormwater quality control measures work properly during operations.

Significance After Mitigation

Implementation of Mitigation Measure HYD-1 and HYD-2 would ensure that water quality impacts are minimized during construction and operation of the project. With implementation of Mitigation Measure HYD-1 and HYD-2, impacts would be less than significant

Threshold 2:	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?

IMPACT HWQ-2 THE PROJECT WOULD NOT INTERFERE SUBSTANTIALLY WITH GROUNDWATER RECHARGE SUCH THAT SUSTAINABLE GROUNDWATER MANAGEMENT OF THE BASIN WOULD BE IMPEDED. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Development within the project site would be served with potable water service from the City. No groundwater wells would be drilled on-site; therefore, the project would not contribute to groundwater overdraft. In addition, the City of American Canyon's primary water supply source is imported water; local groundwater is not used for municipal purposes. Therefore, no impacts associated with groundwater overdraft would occur.

Implementation of the project may interfere with groundwater recharge by introducing new impervious surfaces through the construction of structures, parking lots, and other paved areas. However, Section 14.28.082 of the American Canyon Municipal Code would require an SCP that meets the criteria in the BASMAA Post Construction Manual for future development and the Newell Drive Extension. The SCP would reduce stormwater pollutant discharges through the construction, operation and maintenance of source control measures, LID, site design measures, stormwater treatment measures and hydromodification management measures. Implementation of the SCP would ensure that groundwater recharge would occur. As such, the project would not substantially decrease groundwater supply, interfere with groundwater recharge, or impede sustainable groundwater management of the basin. Impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 3a:	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?

IMPACT HWQ-3 THE PROJECT COULD ALTER DRAINAGE PATTERNS BUT WOULD NOT RESULT IN SUBSTANTIAL EROSION OR SILTATION AFTER COMPLIANCE WITH EXISTING REGULATIONS AND IMPLEMENTATION OF MITIGATION MEASURES HYD-1 AND HYD-2. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The project could alter the existing drainage patterns on individual project sites with grading, changes in topography, and filling or diversion of potential jurisdictional features, all of which could result in erosion or siltation.

Construction

Chapter 14.28 of the American Canyon Municipal Code (Stormwater and Pollution Discharge Control Program) requires any construction activities in the City to implement appropriate BMPs to prevent the discharge of sediment. An Erosion and Sediment Control Plan would be required for any of the following:

- Project subject to a grading permit;
- Project subject to building permit that has the potential for significant erosion and/or significant non-stormwater discharges of sediment and/or construction site waste; or
- Any other project as required by the authorized enforcement official considering factors such as whether the project involves hillside soil disturbance, rainy season construction, construction near a watercourse, or any other condition or construction site activity that could lead to a non-stormwater discharge to a storm drain.

In addition, future construction disturbing more than one acre would be required to comply with the NPDES program by obtaining project-specific coverage under the State's Construction General Permit. This would require development and implementation of a project-specific construction SWPPP, which would include BMPs to reduce siltation and erosion. Furthermore, Mitigation Measure HYD-1 would require development and implementation of a SWPPP to outline site-specific stormwater quality control measures (such as BMPs) during construction activities to minimize erosion and siltation. Implementation of Mitigation Measure HYD-1, as well as regulatory requirements, would minimize potentially significant erosion and siltation impacts during construction to a less than significant level.

Operation

Runoff from operation of future development and the Newell Drive Extension would be regulated by Section 14.28 of the American Canyon Municipal Code, which ensure compliance with the Phase II MS4 Permit. Section 14.28.082 of the American Canyon Municipal Code would require an SCP that meets the criteria in the BASMAA Post Construction Manual for all future development and the Newell Drive Extension. The SCP must include site design measures and treatment facilities that would minimize impervious surfaces, retain or detain stormwater, slow runoff rates, and reduce pollutant in post-development runoff (BASMAA 2019). Implementation of the SCP would reduce siltation and erosion.

In addition, development subject to the Industrial General Permit would be required to implement erosion and sediment control measures for each erodible surface facility location identified in the operational SWPPP.

Future applicant would implement effective wind erosion controls; provide effective stabilization for inactive areas, finished slopes, and other erodible areas prior to a forecasted storm event; maintain effective perimeter controls and stabilize all site entrances and exits to sufficiently control discharges of erodible materials from discharging or being tracked off the site; divert run-on and storm water generated from within the facility away from all erodible materials. The Industrial General Permit also requires the implementation of BAT and BCT to achieve performance standards. Water quality performance standards would be established by the numeric action levels in the Industrial General Permit. The Industrial General Permit would require dischargers to develop and implement Exceedance Response Actions when a numeric action levels exceedance occurs during a reporting year. The Industrial General Permit would also implement an operational SWPPP and a monitoring plan. The operational SWPPP identifies the site-specific sources of pollutants and describes the best management practices implemented at the facility to prevent dry weather runoff and to reduce pollutants in storm water discharges.

Furthermore, in accordance with applicable provisions of Section C.3 of the San Francisco Bay RWQCB Municipal Regional Permit (Order No. R2-2015-0049, NPDES Permit No. CAS612008 [or more recent permit]), as required under Mitigation Measure HYD-2, the project would implement LID stormwater management methods into the on-site storm drainage system consisting of rainwater harvesting and use, infiltration, evapotranspiration, or biotreatment. Collectively, these measures would serve to slow, reduce, and meter the volume of runoff leaving the project site and ensure that erosion and siltation is minimized. Impacts would be less than significant with Mitigation Measure HYD-2.

Mitigation Measures

Mitigation Measures HYD-1 and HYD-2 (see Impact HYD-1)

Significance After Mitigation

Implementation of Mitigation Measures HYD-1 and HYD-2 would ensure that erosion and siltation impacts are minimized during construction and operation of the project. With implementation of Mitigation Measures HYD-1 and HYD-2, impacts would be less than significant.

Threshold 3b:	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 substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
Threshold 3c:	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 that would 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?

IMPACT HWQ-4 THE PROJECT COULD ALTER DRAINAGE PATTERNS AND INCREMENTALLY INCREASE OVERALL RUNOFF VOLUMES BUT WOULD NOT EXCEED THE CAPACITY OF EXISTING OR PLANNED STORMWATER DRAINAGE SYSTEMS OR PROVIDE SUBSTANTIAL ADDITIONAL SOURCES OF POLLUTED RUNOFF DUE TO IMPLEMENTATION OF EXISTING REGULATIONS AND MITIGATION MEASURES HYD-1 AND HYD-2. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

The project could alter the existing drainage patterns on individual project sites with grading, changes in topography, and filling or diversion of potential jurisdictional features, all of which could create or contribute runoff water.

Construction

Construction activities could involve stockpiling, grading, excavation, dredging, paving, and other earth-disturbing activities that could temporarily alter existing drainage patterns. As described in Impact HWQ-1, compliance with the Construction General Permit would reduce the risk of short-term erosion and runoff due to drainage alterations during construction. Construction activities would also be required to comply with Chapter 14.28 of the American Canyon Municipal Code (Stormwater and Pollution Discharge Control Program), which requires any construction activities in the City to implement appropriate BMPs to prevent the discharge of sediment, construction wastes or contaminants from construction materials, tools, and equipment from entering a city storm drain or watercourse. Finally, Mitigation Measure HYD-1 would require the implementation of BMPs as part of the SWPPP. As such, through compliance with these regulations and mitigation, potentially significant short-term impacts from runoff during construction, including flooding and polluted runoff would be less than significant.

Operation

Runoff from operation of future development and the Newell Drive Extension would be regulated by Section 14.28 of the American Canyon Municipal Code, which ensure compliance with the Phase II MS4 Permit. Section 14.28.082 of the American Canyon Municipal Code would require an SCP that meets the criteria in the BASMAA Post Construction Manual for all future development and the Newell Drive Extension. The SCP would outline LID and other measures to minimize peak flows or total runoff volume from future development and the Newell Drive Extension. The SCP would be required to meet the criteria in the BASMAA Post Construction Manual, which outlines measures for projects to control pollutants in runoff from newly created or replaced impervious surfaces (BASMAA 2019). Implementation of these measures would ensure that future development and the Newell Drive Extension mimic the pre-development site hydrology. In addition, development subject to the Industrial General Permit would be required to implement BAT and BCT to reduce or prevent

pollutants in storm water discharges. With implementation the SCP and the Industrial General Permit requirement, the project would not 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.

Furthermore, in accordance with applicable provisions of Section C.3 of the San Francisco Bay RWQCB Municipal Regional Permit (Order No. R2-2015-0049, NPDES Permit No. CAS612008 [or more recent permit]), as required under Mitigation Measure HYD-2, the project would implement LID stormwater management methods into the on-site storm drainage system consisting of rainwater harvesting and use, infiltration, evapotranspiration, or biotreatment. Collectively, these measures would serve to slow, reduce, and meter the volume of runoff leaving the project site and ensure that downstream storm drainage facilities are not inundated with project-related stormwater. Impacts would be less than significant with Mitigation Measure HYD-2.

Mitigation Measures

Mitigation Measures HYD-1 and HYD-2 (see Impact HYD-2)

Significance After Mitigation

Implementation of Mitigation Measures HYD-1 and HYD-2 would ensure that impacts related to runoff, including flooding and polluted runoff are minimized during construction and operation of the project. With implementation of Mitigation Measures HYD-1 and HYD-2, impacts would be less than significant.

Threshold 3d:	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 impede or redirect flood flows?
Threshold 4:	In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

IMPACT HWQ-5 THE PROJECT SITE IS NOT WITHIN AN AREA AT RISK FROM INUNDATION BY FLOOD HAZARD, SEICHE, OR TSUNAMI AND WOULD NOT RISK THE RELEASE OF POLLUTANTS DUE TO PROJECT INUNDATION. THE PROJECT IS NOT IN A FLOOD HAZARD ZONE AND WOULD NOT IMPEDE OR REDIRECT FLOOD FLOWS. THERE WOULD BE NO IMPACT.

As described in Section 4.10.1, *Setting*, the project site is not located in a flood zone or a tsunami inundation zone. The nearest body of water that is subject to seiche is Lake Frey, located approximately 7 miles northeast of the project site. Given the distance, the project would not be inundated from a seiche at Lake Frey. Since the project is not located in a flood hazard, tsunami, or seiche zones, the project would not risk release of pollutants due to project inundation and no impact would occur. In addition, because the project site is not in a flood hazard zone, the project would not impede or redirect flood flows and there would be no impact.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 5:	Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

IMPACT HWQ-6 THE PROJECT WOULD NOT CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF A WATER QUALITY CONTROL PLAN OR SUSTAINABLE GROUNDWATER MANAGEMENT PLAN. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project site is in the Napa Sonoma Lowlands Subbasin of the Napa-Sonoma Valley Groundwater Basin (DWR 2022a). The Napa-Sonoma Lowlands Subbasin is classified as very low priority by the DWR (County of Napa 2022). SGMA requires local agencies to form groundwater sustainability agencies for the high and medium priority basins. Since the Napa Sonoma Lowlands Subbasin is designated as very low priority basin, the basin is not subject to a sustainable groundwater management plan. Therefore, the project would not conflict with or obstruct implementation of a sustainable groundwater management plan.

The project is subject to the requirements of the San Francisco RWQCB (RWQCB 2017). As described in Impact HWQ-1, the project would result in a less than significant impact on water quality through the implementation of State and local regulations, including the Construction General Permit, the Industrial General Permit, and Chapter 14.28 of the American Canyon Municipal Code. With implementation of these regulations, impacts associated with conflict within a water quality control plan would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.10.1 Cumulative Impacts

The geographic scope of the cumulative geology and soils analysis is the City of American Canyon and the surrounding vicinity (unincorporated Napa County).

Because the project would have no impact related to impeding or redirecting flood flows, as well as releasing pollutants due to project inundation, the project would not contribute to a cumulative impact. Therefore, cumulative impacts related to impeding or redirecting flood flows, as well as releasing pollutants due to project inundation are not discussed further.

Like the project, cumulative projects in the City are also expected to result in impacts on water quality; groundwater recharge; erosion, siltation, flooding, and polluted runoff from alteration of drainage patterns; and compliance with a water quality control plan. However, all these cumulative projects would be required to comply with similar regulations, including the Construction Genera Permit, the Industrial General Permit (for industrial projects), Section 14.28 of the American Canyon Municipal Code (for projects in the City of American Canyon), and Section 16.28 of the Napa County Municipal Code (for projects in unincorporated Napa County). Section 16.28 of the Napa County Municipal Code includes similar requirements as Section 14.28 of the American Canyon Municipal Code, including requiring an ECSP and an SCP that meets the standards in the BASMAA Manual. As such, cumulative impacts on water quality, groundwater recharge, and runoff-related impacts would be minimized through the implementation of regulations. As such, cumulative impacts on hydrology and water quality would be less than significant.

4.11 Land Use and Planning

This section summarizes existing and planned land uses in the project site and analyzes the impacts on land use and planning due to the project. The physical environmental effects associated with the project, many of which pertain to issues of land use compatibility (e.g., noise, aesthetics, air quality) are evaluated in other sections of this EIR.

4.11.1 Setting

a. Existing Land Use Patterns

The project site contains a mix of undeveloped land, residential uses, outdoor storage, and Union Pacific Railroad (UPRR) right-of-way. The northern portion is largely undeveloped, except for a farmhouse and accessory outbuildings. The central and southern portion includes 13 residential lots, varying in size from 1 to 10 acres. The residential parcel in the southwest corner has a conditional use permit issued by the County for outdoor storage. The northeast portion to the east of the UPRR has outdoor truck and material storage. The UPRR right-of-way in the southeast portion is undeveloped. There is an auto-repair business adjacent to the western edge of the project site.

b. General Plan Land Use Designations and Zoning

The project site currently has Agriculture, Residential Estate, and Town Center land use designations (see Figure 2-3 in Chapter 2, *Project Description).* The northeastern portion of the project-site is the only portion of the project site that is pre-zoned, and it is pre-zoned Town Center.

c. Surrounding Land Uses

The annexation area is surrounded by either industrial, commercial, residential, or agricultural uses. To the north and east are residential and agricultural lands. To the west are industrial uses beyond SR 29. Immediately to the south is vacant land, beyond which are residential/commercial uses.

d. Pre-Annexation Agreement

In June 2019, the American Canyon City Council adopted Resolution 2019-44 to execute a First Amended Pre-Annexation Agreement for the annexation area. The resolution notes that the annexation area includes continuous parcels to avoid creating an “island” of unincorporated territory surrounded by the City. The islands being referred to include the UPRR right-of-way in the southeastern section of the annexation area and the area to the east of the UPRR. The resolution includes a clause that mentions the dedication of a public right-of-way for the extension of Newell Drive. Finally, the resolution grants City Council the right to consider amending the General Plan to change the designation of the northern portion of the annexation area from Industrial to Community Commercial.

4.11.2 Regulatory Setting

a. Federal

There are no federal regulations that pertain to land use and planning.

b. State

State Aeronautics Act

The State Aeronautics Act requires each county with an airport to establish an Airport Land Use Commission (ALUC) to regulate land use around airports to protect public safety and ensure that land uses near airports do not interfere with aviation operations. The Napa County Airport Land Use Compatibility Plan regulates land use around the Napa County Airport, as well as two other aviation facilities in the County, by requiring compliance with the policies of the plan. In certain circumstances, local governments may override the decisions of the ALUC.

Sustainable Communities and Climate Protection Act (SB 375)

The Sustainable Communities and Climate Protection Act (SB 375) supports the State's climate goals by helping reduce greenhouse gas emissions through coordinated transportation, housing, and land use planning. Under SB 375, the California Air Resources Board (CARB) set targets for 2020 and 2035 for each of the 18 metropolitan planning organization regions in 2010 and updated them in 2018. Each of the regions must prepare a Sustainable Communities Strategy (SCS), as an integral part of its regional transportation plan, that contains land use, housing, and transportation strategies that, if implemented, would allow the region to meet CARB's targets. SB 375 establishes some incentives to encourage implementation of the development patterns and strategies included in an SCS. Developers can get relief from certain environmental review requirements under the California Environmental Quality Act (CEQA) if their new residential and mixed-use projects are consistent with a regions SCS that meets the targets (see Public Resources Code Sections 21155, 21155.1, 21155.2, and 21159.28).

Government Code Section 65860(a)

State law requires that general law city or town zoning ordinances be consistent with the general plan. A zoning ordinance is consistent with an adopted general plan only if the various land uses authorized by the zoning ordinance "are compatible with the objectives, policies, general land uses, and programs specified in such a plan" (Government Code Section 65860(a)). State law also provides that in the event a zoning ordinance becomes inconsistent with a general plan by reason of amendment to such a plan, the zoning ordinance must be amended within a reasonable time so that it is consistent with the general plan as amended [Government Code Section 65860(a)]. The City of American Canyon is a general law city and is, therefore, required to have zoning consistency.

Cortese Knox Hertzberg Local Government Reorganization Act of 2000

The 2000 Cortese Knox Hertzberg Local Government Reorganization Act (CKH Act) established procedures for local agency changes of organization, including city incorporation, annexation to a city or special district, and consolidation of cities or special districts (Section 56000, et seq.). Local Agency Formation Commissions (LAFCOs) have numerous powers under the CKH Act, but the most important are the power to act on local agency boundary changes and to adopt sphere of influences (SOIs) for local agencies. The law states that to update an SOI, LAFCOs are required to first conduct a review of the municipal services provided by the local agency. The CKH Act requires LAFCOs to update SOIs for every city and special district every five years. The original deadline was January 2006, five years following the CHK Act becoming State law. That deadline was extended two years to January 2008. Every SOI update must be accompanied by an update of the municipal services review. American Canyon's SOI is not being updated as a part of the project.

c. Local

Association of Bay Area Governments 2021 Regional Transportation Plan/Sustainable Communities Strategy

The Association of Bay Area Governments (ABAG) is required by State and federal law to prepare, update, and adopt a Regional Transportation Plan (RTP) every four years. The most recent update to the RTP/SCS was completed by ABAG and the Metropolitan Transportation Commission in October 2021. The 2021 RTP/SCS, also known as Plan Bay Area 2050, builds on ABAG's 2017 RTP/SCS and serves as the blueprint for the region's transportation system over the next 30 years (ABAG 2021).

The 2021 RTP/SCS includes the following goals:

- Protect and preserve affordable housing.
- Spur housing production for residents of all income levels.
- Create inclusive communities.
- Improve economic mobility.
- Shift the location of jobs.
- Maintain and optimize the existing transportation system.
- Create healthy and safe streets.
- Build a next-generation transit network.
- Reduce risks from hazards.
- Expand access to parks and open space.
- Reduce climate emissions.

American Canyon General Plan

The City's General Plan guides how land in the city may be developed and used by designating each parcel of land for a particular use or combination of uses and by establishing broad development policies. Land use designations identify both the types of development, such as residential, commercial, and industrial, that are permitted and the density or intensity of allowed development, such as the minimum or maximum number of housing units permitted on an acre of land or the amount of building square footage allowed. Some of the key goals related to land use are summarized in Table 4.11-2 in Impact LU-2 (American Canyon 1994). The Circulation Element was comprehensively updated in 2013, the Housing Element was comprehensively updated in 2015, and incremental amendments have been made to the Land Use Element over time and as recently as 2021.

City of American Canyon Municipal Code

The Zoning Code (Title 19) of the City of American Canyon Municipal Code is the primary tool used by the City to carry out the goals, objectives, and policies of the American Canyon General Plan by classifying and regulating the uses of land and structures within the city, consistent with the General Plan. Zoning is the instrument that implements the land use designations of a general plan. In addition to establishing permitted uses, zoning may also establish development standards relating to issues such as intensity, setbacks, height, and parking. Projects submitted to the City for review and approval are generally evaluated for consistency with the zoning designations. There are 21 existing zoning districts established by the American Canyon Zoning Ordinance, and those relevant to the project are as follows (American Canyon 2015):

- RE – Residential Estate
- TC – Town Center

Napa County Airport Land Use Compatibility Plan

The Napa County Airport Land Use Compatibility Plan (ALUCP) governs land use around Napa County Airport. The ALUCP identifies two categories of flight hazards: physical obstructions and land use characteristics. Physical obstructions are associated with tall objects or structures. The ALUCP establishes a height restriction of 35 feet above the ground for objects located within Zone D. Additional height may be permitted under stringent Special Use Permit procedures as provided for in the Airport Safety Ordinance No. 416 and be referred to the Napa County ALUC prior to final approval. Land use characteristics involve uses that may produce hazards to aviation. Specific characteristics prohibited within the airport land use planning boundaries are listed below:

- Glare or distracting lights, which could be mistaken for airport lights
- Sources of dust, steam, or smoke that may impair pilot visibility
- Sources of electrical interference with aircraft communications or navigation
- Any use that may attract large flocks or birds, especially landfills or certain agricultural uses

The ALUCP follows Noise Compatibility Guidelines, as included in Table 2-1 of the ALUCP (ALUC 1991). New residential uses are not permitted within Zone D without ALUC review. However, the City entered a Settlement Agreement with the ALUC on May 3, 2022. The Settlement Agreement provides that the City will not approve any application for a residential use in Zone D until an amendment to the ALUCP has been approved or December 31, 2023, whichever occurs first. The Settlement Agreement does not prohibit the City from processing an application for a residential proposal within Zone D.

4.11.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on land use and planning if it would:

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.

Methodology

This section describes the potential environmental impacts of the project relevant to land use and planning. The potential impacts from the project were evaluated through a review of existing policies and plans in the region and City. A consistency analysis of the project with applicable regional and city policies adopted for the purposes of reducing or mitigating an environmental effect was completed to identify potential impacts.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project physically divide an established community?

Impact LU-1 THE PROJECT WOULD NOT PHYSICALLY DIVIDE AN ESTABLISHED COMMUNITY AND THERE WOULD BE NO IMPACT.

There is an established community of single-family residences located on the southern portion of the project site. This area is designated as Residential Estate and the project would not result in any changes to this community. On the northern portion of the project site, industrial, commercial, visitor serving uses, and the Newell Drive Extension are proposed. There are no established communities in the northern portion where development would be located. The project would not physically divide an established community and there would be no impact.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

Threshold 2:	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?

Impact LU-2 THE PROJECT WOULD NOT RESULT IN A SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO A CONFLICT WITH A PLAN ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AN ENVIRONMENTAL EFFECT. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Several regionally and locally adopted land use plans, policies, and regulations apply to the project. These include the Plan Bay Area 2050, the Bay Area 2017 Clean Air Plan, the General Plan, and the ALUCP. Project consistency with the 2017 Clean Air Plan is discussed in Section 4.3, *Air Quality*. Project consistency with applicable goals and policies of Plan Bay Area 2050 and the General Plan are identified below in Table 4.11-1 and Table 4.11-2. Consistency of the project with the ALUCP are described below, after Table 4.11-2.

The environmental analysis evaluates the project's consistency with existing applicable land use plans to avoid or mitigate any potential significant environmental effects. The project is considered consistent with identified regional and local plans when it meets the applicable plan's intent and there are no direct conflicts with applicable policies. The following principles are used in this analysis:

- A project need not be in perfect conformity with every policy, nor does state law require a proposed project to precisely conform with every policy or land use designation.
- Courts have also acknowledged that general and specific plans attempt to balance a range of competing interests, and that it is nearly, if not absolutely, impossible for a project to perfectly conform with every policy set forth in the applicable plan.
- In reaching a consistency conclusion, the City may also consider the consequences of project denial, which may cause an inconsistency with other policies.

For an impact to be considered significant, an inconsistency would have to result in a significant adverse change in the environment not already addressed in the other resource chapters of this EIR. The analysis below provides a discussion of the most relevant policies from applicable planning documents. However, the City's consistency conclusions are based upon the planning documents as a whole.

Table 4.11-1 Project Consistency with the Plan Bay Area 2050

Plan Bay Area Goals	Project Consistency
Environmental Strategies	
EN4. Maintain urban growth boundaries. Using urban growth boundaries and other existing environmental protections, focus new development within the existing urban footprint or areas otherwise suitable for growth, as established by local jurisdictions.	**Consistent.** The project site boundaries are consistent with the City's Sphere of Influence and Urban Limit Line.
Economic Strategies	
EC6. Retain and invest in key industrial lands. Implement local land use policies to protect key industrial lands, identified as Priority Production Areas, while funding key infrastructure improvements in these areas.	**Consistent.** The project is located in a proposed PPA. The proposed Industrial land use would provide funding for utility infrastructure, including the Newell Drive extension.

Table 4.11-2 Project Consistency with the City of American Canyon General Plan

Goal, Policy, Objective	Project Consistency
Land Use and Community Design Element	
Objective 1.1. Accommodate the development of a balance of land uses that (a) provide for the housing, commercial, employment, educational, cultural, entertainment, and recreation needs of residents, (b) capture visitor and tourist activity, (c) provide employment opportunities for residents of the greater subregion; and (d) provide open space and aesthetic relief from developed urban/suburban areas	**Consistent.** The project would allow multiple land uses in the project site including commercial, industrial, and residential. The project's industrial and commercial areas will provide employment opportunities for the City and surrounding region.
Objective 1.2: Promote a rate of growth that is consistent with the ability of the City to provide adequate infrastructure and services and does not adversely impact the distinctive quality of life in American Canyon.	**Consistent.** As described in Section 4.14, *Public Services and Recreation* and Section 4.17, *Utilities and Service Systems*, there would be sufficient infrastructure for the project.
Objective 1.3: Ensure that land use development is coordinated with the ability to provide adequate public infrastructure (transportation facilities, wastewater collection and treatment, water supply, electrical, natural gas, telecommunications, solid waste disposal, and storm drainage) and public services (governmental, administrative, capital improvements, police, fire, recreational, cultural, etc.).	**Consistent.** As described in Section 4.14, *Public Services and Recreation* and Section 4.17, *Utilities and Service Systems*, there would be sufficient infrastructure for the project.

Goal, Policy, Objective	Project Consistency
Utilities Element	
Goal 5A. It shall be the goal of American Canyon to establish and maintain a secure water supply and treatment, distribution, and storage system to serve the land uses proposed under the general plan.	**Consistent.** As described in Section 4.17, *Utilities and Service Systems*, the project would be required to implement the Zero Water Footprint policy, which would result in a no net increase in potable water use in the City's water distribution system. For this reason, there would be sufficient water supplies for the project.
Objective 5.10. Ensure that adequate storm drain and flood control facilities are provided and properly maintained to protect life and property from flood hazards.	**Consistent.** Section 4.10, *Hydrology and Water* Quality identifies regulations, as well as Mitigation Measures HYD-2, that the project would implement to minimize storm drainage impacts. Section 4.17, *Utilities and Service Systems* identifies that adequate storm drains would be provided.
Objective 5.14. Provide a system of wastewater collection and treatment facilities which will adequately convey and treat wastewater generated by existing and future development in the City's service area.	**Consistent.** As described in Section 4.17, *Utilities and Service Systems*, the City's wastewater treatment facilities have adequate capacity for the incremental increase in demand resulting from this project.
Goal 5F. To provide for the collection and disposal of solid waste while maximizing source reduction, recycling and composting, within economic constrains.	**Consistent.** As described in Section 4.17, *Utilities and Service Systems*, future development at the project site would be required to comply with existing regulations related to reducing and recycling solid waste.
Public Services and Facilities Element	
Objective 6.1. Provide adequate educational facilities and programs that meet the needs of American Canyon's residents by coordination development activities with the Napa Valley Unified School District.	**Consistent.** As described in Section 4.19, *Effects Found Not to be Significant*, the project would pay State-mandated school impact fees, which would ensure there are adequate educational facilities to meet the additional demand from the project.
Goal 6A. Maintain a high level of fire protection and emergency services to City/district businesses and residences.	**Consistent.** As described in Section 4.14, *Public Services and Recreation*, implementation of Mitigation Measure PSR-1 would ensure that adequate measures are implemented to ensure adequate emergency services. In accordance with standard practices, American Canyon Fire Protection District would review project plans, for any future projects at the project site before permits are issued to ensure compliance with all applicable fire and building code standards and ensure adequate emergency access is provided to the site.
Goal 6B. Ensure a high level of police protection for the City's residents, businesses, and visitors.	**Consistent.** As described in Section 4.14, *Public Services and Recreation*, the Police Department will have the opportunity to review and comment on security measures during the plan check review process for future development on the project site and the project would be expected to generate minimal calls for service.
Goal 6C. Ensure the enhanced provision of library services for the City's residents and businesses.	**Consistent.** As described in Section 4.14, *Public Services and Recreation*, the project would pay Civic Facilities Fees, a portion of which would provide funding to ensure there are adequate library resources to meet the project's demand.
Natural and Historic & Cultural Resources Element	
Goal 8. Protect and preserve the significant habitats, plants and wildlife that exist in the City and its Planning Area.	**Consistent.** As described in Section 4.4, *Biological Resources*, implementation of Mitigation Measures BIO-1 through BIO-7 would ensure that the project preserves habitat, plants, and wildlife.

Goal, Policy, Objective	Project Consistency
Goal 8A. Maintain the quality of surface and subsurface water resources within the City of American Canyon and its Planning Area.	**Consistent.** As described in Section 4.10, *Hydrology and Water* Quality, future development on the project site would adhere to existing regulations that would protect the quality of surface and subsurface water resources.
Goal 8B. Promote the preservation of American Canyon's soil resources by protecting areas that are suitable for agricultural uses or buffer zones.	**Consistent.** As described in Section 4.2, *Agriculture and Forestry Resources,* the project would result in no impacts to agricultural resources.
Goal 8C. Maintain proper management of designated mineral extraction areas to meet the needs of the City while ensuring adequate reclamation of those sites.	**Consistent.** As described in Section 4.19, *Effects Found Not to be Significant*, project implementation would not affect mineral resources.
Goal 8D. Maintain the natural visual character of the City.	**Consistent.** As described in Section 4.1, *Aesthetics*, the project would not significantly affect scenic resources within the City and would be consistent with the policies identified under Goal 8D.
Objective 8.19. Ensure that the City's historically and archaeologically significant resources are protected in a manner that preserves and/or enhances the resources' inherent historic value.	**Consistent (Historical Resources).** There are several historic-aged buildings or structures located within and immediately adjacent to the project site; however, it is not currently known whether any of these buildings or structures are historical resources. Mitigation Measure CUL-1 requires a historical resources evaluation if historical-age features are present where development would occur and include measures to be followed if a historical resource is found. As such, with implementation of this mitigation, historical resources would be protected in a manner that preserves and/or enhances the resources' inherent historic value. **Consistent (Archaeological Resources).** As described in Section 4.5, *Cultural Resources*, implementation of Mitigation Measures CUL-2 and CUL-3 would ensure that archaeological resources are protected.
Goal 8F. Reduce consumption of nonrenewable energy sources and support the development and utilization of new energy sources.	**Consistent.** Future development on the project site would be required to comply with the latest Title 24 Green Building Code and Building Efficiency Energy Standards, including installing energy-efficient LED lighting, water-efficient faucets and toilets, water efficient landscaping and irrigation, and EV charging stations. Furthermore, as described in Section 4.6, *Energy*, the project would be served by Pacific Gas and Electric, which is required to increase its renewable energy procurement in accordance with SB 100 targets. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.
Geology Element	
Goal 9. Reduce the potential level of death, injury, property damage, economic and social dislocation (i.e., business closure and homelessness due to structural damage) and disruption of vital services that could result from earthquake damage.	**Consistent.** Mandatory compliance with the California Building Code and American Canyon Municipal Code along with Mitigation Measure GEO-1 would reduce impacts related to strong seismic ground shaking from an earthquake (see Section 4.7, *Geology and Soils*).
Goal 9C. Ensure that seismic, geologic, and soils hazards that might affect areas designated for human use or habitation are properly mitigated or avoided entirely prior to development.	**Consistent.** Development on the project site would incorporate all necessary seismic requirements of the most recent California Building Code along with Mitigation Measure GEO-1 (see Section 4.7, *Geology and Soils*).

Goal, Policy, Objective	Project Consistency
Goal 9C. Ensure that the City's public infrastructure is designed in a manner that reduces the risk of system failure in the event of an earthquake.	**Consistent.** The Newell Drive Extension would incorporate all necessary seismic requirements of the most recent California Building Code (see Section 4.7, *Geology and Soils*).
Noise Element	
Goal 11. Ensure that American Canyon's existing and future residents, employees and employers, as well as visitors to the City, are protected from the adverse human health and environmental impacts of excessive noise levels created by stationary and ambient (intrusive) noise sources and conditions. Take all necessary and appropriate action to avoid or mitigate the detrimental effects of such excessive noise on the community.	**Consistent**. As described in Section 4.12, *Noise,* impacts from stationary sources would be less than significant and no mitigation would be required. Furthermore, the project would comply with the provisions in the American Canyon Municipal Code, the California Building Code, and the Occupational Safety and Health Act of 1970, which would reduce impacts related to noise.
Objective 11.2. Protect residents, employees, and visitors to the community from excessive noise exposure. If possible, mitigate the adverse impacts of existing or unavoidable excessive noise on these same groups.	**Consistent.** As described in Section 4.12, *Noise,* noise impacts during construction and operation of the project would be reduced to a less than significant level through the implementation of Mitigation Measures NOI-1, NOI-2, and NOI-3. The project would still be consistent with this policy because the project would minimize noise impacts to the extent feasible.
Objective 11.5. Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or "noise-sensitive" uses.	**Consistent**. As described in Section 4.12, *Noise,* operational noise impacts would be less than significant after implementation of Mitigation Measure NOI-3. In addition, the project would comply with the American Canyon Municipal Code and would not exceed the maximum interior and exterior noise levels.
Objective 11.7. Minimize the impacts of construction noise on adjacent land uses.	**Consistent.** As described in Section 4.12, *Noise*, future construction would be required to comply with Mitigation Measure NOI-1, which would minimize the impacts of construction noise on adjacent users. The impact would be less than significant after mitigation and the project would be consistent with this policy because it would minimize noise impacts to the extent feasible.
Objective 11.8. Ensure that buildings are constructed soundly to prevent adverse noise transmission between differing uses or tenants located in the same commercial structure, and individual dwelling units in multi-family residential structures.	**Consistent**. As described in Section 4.12, *Noise,* the project would comply with the provisions in the American Canyon Municipal Code and the California Building Code, which would reduce impacts related to noise. In addition, the project would comply with the American Canyon Municipal Code and would not exceed the maximum interior and exterior noise levels.
Objective 11.11. Ensure that noise impacts of stationary sources are adequately mitigated.	**Consistent.** As described in Section 4.12, *Noise*, impacts from stationary sources would be less than significant and no mitigation would be required.

The Napa County Airport is located approximately 1.2 miles northwest of the project site and development within the Napa County Airport's sphere of influence is governed by the ALUCP. Nearly the entire project site would be located within Compatibility Zone D, except for the southern portion of the project site is in Zone E; however, that area contains the Union Pacific Railroad right-of-way, and no development would occur in that area. The Napa County ALUC contains "Supporting Compatibility Policies" related to noise, safety, airspace protection, and overflight (ALUC 1991). Consistency with the ALUCP regarding noise and maintenance of acceptable noise levels is discussed in Section 4.9, *Noise*, which finds impacts to be less than significant. Consistency with the ALUCP

regarding hazards, including those related to safety, airspace protection, and overflight, is discussed in Section 4.9, *Hazards and Hazardous Materials*, which finds impacts to be less than significant. As such, the project would be consistent with the ALUCP and impacts would be less than significant.

As demonstrated above, the project would be consistent with Plan Bay Area 2050, the General Plan, and the ALUCP. Therefore, impacts would be less than significant.

Mitigation Measures

No additional mitigation measures for land use and planning would be required beyond those identified throughout this EIR, including Mitigation Measures AES-1 and AES-2; AQ-1 through AQ-3; BIO-1 through BIO-7; CUL-1 through CUL-5; GEO-1 and GEO-2; GHG-1 through GHG-5; HAZ-1; HYD-1 and HYD-2; PSR-1; and NOI-1 through NOI-3.

Significance After Mitigation

Impacts would be less than significant without mitigation, beyond those identified throughout this EIR.

4.11.4 Cumulative Impacts

Because the project would have no impact related to the division of an established community, the project would not contribute to a cumulative impact. Therefore, cumulative impacts related to the division of an established community are not discussed further.

The geographic scope of the cumulative impacts on a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, is the City of American Canyon. If there were several cumulative projects that had inconsistencies with a land use plan, the impacts could accumulate and result in a cumulative impact. The project, however, would be consistent with land use plans through adherence to existing regulations and through compliance with mitigation. Because the project would be consistent with land us plans, policies, and regulation adopted for the purpose of avoiding or mitigating an environmental effect, the project's contribution to a cumulative impact would be less than significant.

4.12 Noise

This section analyzes noise and groundborne vibration impacts associated with the project, including short-term construction and long-term operational noise and vibration. Noise modeling results associated with the analysis herein are included in Appendix C to this EIR.

4.12.1 Environmental Setting

a. Fundamentals of Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dBA; dividing the energy in half would result in a 3 dBA decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not “sound twice as loud” as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible; and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (Caltrans 2013).

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in sound level as the distance from the source increases. The manner by which noise declines with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions. Noise levels from a point source (e.g., construction, industrial machinery, ventilation units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site, such as a parking lot or smooth body of water, receives no additional ground attenuation and the changes in noise levels with distance (drop-off rate) result simply from the geometric spreading of the source. An additional ground attenuation value of 1.5 dBA per doubling of distance applies to a soft site (e.g., soft dirt, grass, or scattered bushes and trees) (Caltrans 2013).

Noise levels may also be reduced by intervening structures. The amount of attenuation provided by this “shielding” depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5 dBA reduction in source noise levels at the receiver.

Noise Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs, its frequency, and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed.

One of the most frequently used noise metrics that considers both duration and intensity is the equivalent noise level (L_{eq}). The L_{eq} is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time. Typically, L_{eq} is equivalent to a one-hour period, even when measured for shorter durations, as the noise level of a 10- to 30-minute period would be the same as the hour if the noise source is relatively steady. L_{max} is the highest Root Mean Squared (RMS) sound pressure level within the sampling period, and L_{min} is the lowest RMS sound pressure level within the measuring period. Normal conversational levels at three feet are in the 60- to 65-dBA L_{eq} range and ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that which occurs during the day. Community noise is usually measured using Day-Night Average Level (L_{dn} or DNL), which is a 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours, or Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013). Noise levels described by DNL and CNEL usually differ by about 0.5 dBA and are, therefore, generally considered to be interchangeable.

b. Overview of Groundborne Vibration

In environmental analysis, groundborne vibration of concern consists of the oscillatory waves that move from a source through the ground to adjacent structures. The number of cycles per second of oscillation makes up the vibration frequency, described in terms of Hertz. The frequency of a vibrating object describes how rapidly it oscillates. Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration.

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hertz), or when foundations or utilities, such as sewer and water pipes, physically connect the structure and the vibration source (FTA 2018). Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

Vibration energy spreads out as it travels through the ground, causing the vibration level to diminish with distance away from the source. High-frequency vibrations diminish much more rapidly than low frequencies, so low frequencies tend to dominate the spectrum at large distances from the source. Discontinuities in the soil strata can also cause diffractions or channeling effects that affect the propagation of vibration over long distances (Caltrans 2020). When a building is impacted by

vibration, a ground-to-foundation coupling loss will usually reduce the overall vibration level. However, under rare circumstances, the ground-to-foundation coupling may amplify the vibration level due to structural resonances of the floors and walls.

Vibration amplitudes are usually expressed in peak particle velocity (PPV). The PPV is normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration and other construction activity because it is related to the stresses that are experienced by buildings (Caltrans 2020). Table 4.12-1 summarizes the vibration damage criteria recommended by the FTA for evaluating the potential for architectural damage to buildings.

Table 4.12-1 Criteria for Vibration Damage Potential

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Nonengineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

in/sec = inches per second; PPV = peak particle velocity

Source: FTA 2018

c. Sensitive Receivers

According to the City's General Plan (1994), the City defines noise-sensitive land uses as the following:

- Residential uses
- Visitor lodging – hotels, motels, inns
- Schools
- Libraries
- Places of religious worship
- Hospitals
- Assisted living facilities
- Public parks

Vibration-sensitive receivers, which are similar to noise-sensitive receivers include residences; hotels; and institutional uses, such as hospitals, schools, and churches. However, vibration-sensitive receivers also include buildings where vibrations may interfere with vibration-sensitive equipment (e.g., recording studies or medical facilities with sensitive equipment). Other uses that may have particular sensitivity to groundborne vibration include historic sites and structures.

The project area is surrounded by industrial, commercial, residential, and agricultural uses. The nearest sensitive receiver to the annexation area is a single-family residence located adjacent to the project site to the east on Watson Lane. This residence is located adjacent to an area that would be pre-zoned as Residential Estate and approximately 700 feet from areas that would be pre-zoned as Paoli Light Industrial and Town Center. Multi-family residences (Canyon Ridge at Napa Junction) are located approximately 150 feet west of the southern end of the project site in the area that would be pre-zoned as Railroad Right of Way. These multi-family residences (Canyon Ridge at Napa

Junction) are located approximately 3,400 feet from the areas that would be pre-zoned as Paoli Light Industrial and Paoli Light Industrial with Paoli Commercial Overlay. Additional residences are located at further distances. The American Canyon Little League Field is located approximately 1,100 feet southwest of the area of the project site that would be pre-zoned as Residential Estate. There is one residence located approximately 850 feet from where the Newell Drive extension would be located. Within the annexation area, there are existing residences in the central part of the annexation area along Watson Lane adjacent to the areas that would be pre-zoned as Paoli Light Industrial and Paoli Light Industrial with Paoli Commercial Overlay. The property lines of these residences are adjacent to the area that would be pre-zoned as Paoli Light Industrial and Paoli Light Industrial with Paoli Commercial Overlay. In addition, the residential structures are approximately 500 feet from the area that would be pre-zoned as Paoli Light Industrial and Paoli Light Industrial with Paoli Commercial Overlay. A residence within the proposed Paoli Light Industrial with Paoli Commercial Overlay pre-zoning would be demolished and removed as part of the project and would thus not be considered a sensitive receiver.

d. Existing Conditions

Noise Sources

Existing noise at the project site includes noise from mobile and stationary sources. The most prevalent noise source in the City is traffic on freeways and arterial roads. State Route (SR) 29 and Paoli Loop Road are located west of the project site, and Watson Lane is within the annexation area. Periodic noise sources include trains passing on the Union Pacific Railroad (UPRR) tracks located on the project site, aircraft operations in and out of the Napa County Airport, loading docks and machinery within industrial areas, and trucks and mechanical equipment at commercial uses.

Motor vehicle noise is characterized by a high number of individual events that create a sustained noise level in proximity to noise-sensitive uses. Roadways with the highest traffic volumes and speeds produce the highest noise levels. Table 4.12-2 provides existing roadway vehicle noise levels along roadway segments near the project site. Traffic noise modeling data are contained in Appendix C.

Table 4.12-2 Existing Traffic Noise Levels Along Roadway Segments

Roadway	Segment	Existing ADT	Existing Traffic Noise Level at 50 feet (dBA Ldn)
SR 29	South of SR 37	24,051	72.4
SR 29	North of SR 37	43,483	76.4
SR 29	South of Mini Drive	37,492	75.7
SR 29	North of Mini Drive	43,469	75.8
SR 29	North of American Canyon Road	49,579	76.3
SR 29	South of Napa Junction Road	40,762	76.3
SR 29	North of Napa Junction Road	59,044	77.9
SR 29	North of Green Island Road	60,263	78.5
SR 29	South of SR12	59,200	78.2
SR 29	North of SR 12	88,600	79.6
Airport Boulevard	West of SR 29	10,500	69.3
SR 12	East of North Kelly Road	35,033	78.5

Roadway	Segment	Existing ADT	Existing Traffic Noise Level at 50 feet (dBA Ldn)
SR 37	West of SR 29	39,980	76.3
SR 37	East of SR 29	62,495	78.2
American Canyon Road	West of SR 29	15,330	68.9
American Canyon Road	East of Flosden Road	10,771	66.5
Flosden Road	South of American Canyon Road	21,510	70.5
Newell Drive	North of American Canyon Road	9,685	63.4
South Kelly Road	South of SR 12	1,602	58.7

ADT = average daily traffic

Source: GHD 2023

Vibration Sources

Existing sources of operational vibration in the project site include the adjacent UPRR railroad and vehicle traffic on roadways. Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that "heavy trucks, and quite frequently buses, generate the highest earthborn vibrations of normal traffic." Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 in/sec, with the worst combinations of heavy trucks and poor roadway conditions (while such trucks were moving at freeway speeds). This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)" (Caltrans 2013). Construction vibration levels have the potential to be significant when equipment such as impact and vibratory pile drivers, rock blasting, and vibratory rollers are used during construction.

4.12.2 Regulatory Setting

a. Federal

Occupational Health and Safety Administration

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the United State Environmental Protection Agency. Noise limitations would apply to the operation of construction equipment and could also apply to any proposed industrial land uses. Noise exposure of this type is dependent on work conditions and is addressed through a facility's Health and Safety Plan, as required under OSHA, and is not addressed further in this analysis. Since the federal government has preempted setting noise level standards for transportation sources, local jurisdictions are limited to regulating noise generated by the transportation system through nuisance abatement ordinances and land use planning.

b. State

California General Plan Guidelines

State law requires general plans to include a Noise Element under Government Code Section 65302(f). The California General Plan Guidelines, published by the Governor's Office of Planning and

Research, indicate acceptable, specific land use types in areas with specific noise exposure. The guidelines also offer adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution. These guidelines are advisory, and local jurisdictions have the authority to set specific noise standards based on local conditions.

California Building Code

California Code of Regulations Title 24, Building Standards Administrative Code, Part 2, Chapter 12, and the California Building Code codify the State noise insulation standards. These noise standards apply to new construction in California to control interior noise levels as they are affected by exterior noise sources and interior noise sources from separate areas. The regulations specify that interior noise levels shall not exceed 45 dB CNEL/L_{dn} in any habitable room, as well as specifying sound transmission class requirements for walls, floors, and ceilings around sleeping units.

In addition, the standards require an acoustical analysis that demonstrates the manner dwelling units will meet the interior standard, when units are proposed with exterior noise levels greater than 60 dBA CNEL. Title 24 standards are typically enforced by local jurisdictions through the building permit application process.

California Green Building Code

California Green Building Standards Code 2019 (CALGreen) Section 5.507.4, Acoustical Control, regulates construction of non-residential uses within the 65 dBA CNEL/L_{dn} contour of an airport, freeway, expressway, railroad, industrial noise source, or other fixed source. According to Section 5.507.4.1.1: buildings exposed to a noise level of 65 dB L_{eq}(1-hr) during any hour of operation shall employ sound-resistant assemblies as determined by a prescriptive method (CALGreen Section 5.507.4.1) or performance method (CALGreen Section 5.507.4.2).

Projects may demonstrate compliance through the prescriptive method if wall and roof-ceiling assemblies exposed to the noise source meet 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. Projects may demonstrate compliance through the performance method if wall and roof-ceiling assemblies exposed to the noise source are constructed to provide an interior noise environment that does not exceed 50 dB $L_{eq\text{-}1Hr}$ in occupied areas during hours of operations.

c. Regional

Napa County Airport Land Use Compatibility Plan

The Napa County Airport Land Use Compatibility Plan (ALUCP) governs land use around the Napa County Airport. The ALUCP was adopted by the Napa County Airport Land Use Commission in April 1991 and revised in December 1999. It identifies acceptable aviation noise levels by land use.

d. Local

City of American Canyon General Plan

Chapter 11, Noise Element, of the City of American Canyon General Plan, sets forth a goal of ensuring that American Canyon's existing and future residents, employees and employers, as well as visitors to the City, are protected from the adverse human health and environmental impacts of excessive noise levels created by stationary and ambient (intrusive) noise sources and conditions. The City takes all necessary and appropriate action to avoid or mitigate the detrimental effects of such excessive noise on the community. The objectives and policies that would apply to the project are as follows (City of American Canyon 1994):

Objective 11.1: Control both ambient and stationary (intrusive) noise conditions and impacts that may occur in American Canyon. Maintain base line information regarding ambient and stationary noise sources within the community.

> **Policy 11.1.1:** Promote noise-compatible land use relationships by implementing the noise standards identified in Figure 11-2 [of the General Plan], to be utilized for design purposes in new development and for establishing a program to attenuate existing noise problems.
>
> **Policy 11.1.2**: Monitor and update available data regarding the community's ambient and stationary noise levels.

Objective 11.2: Protect residents, employees, and visitors to the community from excessive noise exposure. If possible, mitigate the adverse impacts of existing or unavoidable excessive noise on these same groups.

> **Policy 11.2.1:** Require that new development for locations in which the exterior or interior noise levels indicated in Figure 11-2 [of the General Plan] are likely to be exceeded, submit a noise attenuation study prepared by a qualified acoustical engineer in order to determine appropriate mitigation measures.
>
> **Policy 11.2.2:** Enforce the California Noise Insulation Standards (Title 25, California Administrative Code) that apply to new multiple family, hotel, motel, dormitory, and long-term care developments with a Ldn of 60 dBA noise contour adjacent to roads, transit lines, and manufacturing areas to ensure that the units have been designed to limit interior noise levels in habitable rooms to a Ldn of 45 dBA with doors and windows closed.
>
> **Policy 11.2.4:** Require that new industrial, commercial and related land uses, or the expansion of these existing land uses, demonstrate that they would not directly cause ambient noise levels to exceed an exterior Ldn of 65 dBA in areas containing housing, schools, health care facilities, or other "noise sensitive" land uses. Additionally, require that potentially significant noise generators, including uses such as night clubs that cause sporadic noise intensities, submit noise analyses prepared by an acoustical expert that include specific recommendations for mitigation when: a) the project is located in close proximity to noise-sensitive land uses or land that is planned for noise-sensitive land uses, or b) the proposed noise source could violate the noise provisions of the General Plan or City Noise ordinance.
>
> **Policy 11.2.5:** Require that new commercial structures located adjacent to existing residential areas shield their HVAC [heating, ventilation, and air conditioning] units so as to limit the units' adverse noise impacts to the greatest extent possible.

Policy 11.2.6: Require that parking lots associated with new commercial structures be designed so as to buffer adjacent residential uses from vehicular noise.

Policy 11.2.8: Consider alternate land uses or mitigation measures if large walls or other physical barriers are required to mitigate noise impacts that will affect or be caused by a proposed development project.

Policy 11.2.9: Require the utilization of site and architectural design features in conjunction with noise barriers to mitigate impacts on sensitive land uses. Design techniques capable of mitigating potential noise impacts include:

a. Site Design
   - Using building setbacks and dedicating noise easements to increase the distance between the noise source and receiver;
   - Locating uses and orienting buildings that are compatible with higher noise levels adjacent to noise generators or in clusters to shield more noise-sensitive areas and uses;
   - Placing noise tolerant land uses, such as parking areas, between noise sources and receivers;
   - Using noise tolerant structures, such as garages or carports, to shield noise-sensitive areas; and
   - Clustering office, commercial, or multiple family residential structures to reduce interior open space noise levels.

b. Architectural Design
   - Using building setbacks and dedicating noise easements to increase the distance between the noise source and receiver;
   - Using dense building materials and tight fitting doors;
   - Employing double glazed and double pane windows;
   - Placing unopenable windows on the side of the structure facing a major roadway and entry doors on the side of the building facing away from the major roadway; and
   - Avoiding balconies and patio areas facing major transportation routes.

Objective 11.3: Minimize the adverse impacts of traffic-generated noise on residential and other "noise-sensitive" uses as depicted on Figure 11-5 [of the General Plan].

Policy 11.3.1: Minimize motor vehicle noise impacts from streets and highways through proper route location and sensitive roadway design by employing the following strategies:

a. Consider the impacts of truck routes, the effects of a variety of truck traffic, and future motor vehicle volumes on noise levels adjacent to master planned roadways when improvements to the circulation system are planned.

b. Mitigate traffic volumes and vehicle speed through residential neighborhoods.

c. Work closely with the State of California Department of Transportation (Caltrans) in the early stages of highway improvements and design modifications to ensure that proper consideration is given to potential noise impacts on the City.

Policy 11.3.2: Require that all new nonresidential development design and configure on-site ingress and egress points to divert traffic (and its resultant noise) away from "noise- sensitive" land uses to the greatest degree practicable.

Policy 11.4.1: Require that development in the vicinity of Napa Airport comply with the noise standards contained in the Airport Land Use Compatibility Plan (ALUP).

Objective 11.5: Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or "noise-sensitive" uses.

Objective 11.7: Minimize the impacts of construction noise on adjacent uses.

Policy 11.7.1: Limit non-emergency construction activities adjacent to existing noise-sensitive uses to daylight hours between 6:30 a.m. and 8:00 p.m.

Policy 11.7.2: Require construction activities to employ practical techniques and practices that minimize the generation of adverse and/or excessive noise impacts on adjacent land uses.

City of American Canyon Municipal Code

Section 8.12.070 of the American Canyon Municipal Code identifies that no person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards shown in Table 4.12-3 due to stationary sources.

Table 4.12-3 Exterior Noise Limits for Stationary Sources

Zone	Time	Allowable Noise Limit (L_{50})
Residential Single and Double	Nighttime (10:00 p.m. to 7:00 a.m.)	50
	Daytime (7:00 a.m. to 10:00 p.m.)	60
Residential Multiple	Nighttime (10:00 p.m. to 7:00 a.m.)	55
	Daytime (7:00 a.m. to 10:00 p.m.)	60

Source: Section 8.12.070 of American Canyon Municipal Code

Section 8.12.080 of the American Canyon Municipal Code identifies the following requirements.

- Section 8.12.080 (B)(2)(a). Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the hours of 7:00 p.m. and 7:00 a.m., such that the sound therefrom creates a noise disturbance across a residential or commercial real property line, except for emergency work of public service utilities or by variance issued by the appropriate authority.
- Section 8.12.080 (B)(2)(b). Noise Restrictions at Affected Properties. Where technically and economically feasible, construction activities shall be conducted in such a manner that the maximum noise levels at affected properties will not exceed those listed in Table 4.12-4.

Table 4.12-4 Noise Limits for Construction Activities

Time	Noise Limit by Receiving Land Use (L_{max})		
	Residential	Commercial	Industrial
7:00 a.m. to 7:00 p.m.	75	80	85
7:00 p.m. to 7:00 a.m.	60	65	70

Source: Section 8.12.080 of American Canyon Municipal Code

4.12.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on noise if it would:

1. Generate 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. Generate 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, expose people residing or working in the project area to excessive noise levels

Construction Noise Thresholds

The City has adopted construction noise standards, as shown in Table 4.12-4. Project impacts would be significant is construction noise exceeds these standards.

Operational Noise Thresholds

The City has adopted noise standards in the American Canyon Municipal Code that regulate stationary operational noise sources in the City. The project would result in a significant impact if it generates noise from stationary sources in excess of the standards shown in Table 4.12-3 or if new industrial, commercial, or related land uses cause exterior ambient noise levels to exceed 65 dBA L_{dn} at noise sensitive land uses such as housing, schools, and health care facilities pursuant to General Plan Policy 11.2.4.

For traffic noise, the following thresholds of significance similar to those recommended by the Federal Aviation Administration (FAA) are used to assess traffic noise impacts at sensitive receiver locations:

- Greater than 1.5 dBA increase for ambient noise environments of 65 dBA L_{dn} and higher;
- Greater than 3 dBA increase for ambient noise environments of 60 - 64 L_{dn}; and
- Greater than 5 dBA increase for ambient noise environments of less than 60 dBA L_{dn}.

Groundborne Vibration Thresholds

The City has not adopted a significance threshold to assess vibration impacts. Therefore, the *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) is used to evaluate potential

construction vibration impacts. Construction vibration impacts would be significant if vibration levels exceed the FTA criteria shown in Table 4.12-1. For example, impacts would be significant if vibration levels exceed 0.2 in/sec PPV for residential structures and 0.3 in/sec PPV for commercial structures, which is the limit where minor cosmetic (i.e., architectural) damage may occur to these buildings.

Methodology

Construction Noise

Construction equipment operate in two modes: stationary and mobile. Stationary equipment operate in a single location for one or more days at a time, with either fixed-power operation (e.g., pumps, generators, and compressors) or variable-power operation (e.g., pile drivers, rock drills, and pavement breakers). Mobile equipment moves around a construction site with power applied in cyclic fashion, such as bulldozers, graders, and loaders (FTA 2018). Each phase of construction has its own noise characteristics due to specific equipment mixes. Some will have higher continuous noise levels than others and some may have high-impact intermittent noise levels (FTA 2018). Therefore, construction noise levels may fluctuate depending on the type of equipment being used, construction phase, or equipment location. In typical construction projects on vacant sites, grading activities typically generate the highest noise levels because grading involves the largest equipment and covers the greatest area.

Heavy construction equipment during grading and site preparation would typically include bulldozers, excavators, front-end loaders, dump trucks, and graders. It is assumed that diesel engines would power all construction equipment. Construction equipment would not all operate at the same time or location due to the different tasks performed by each piece of equipment. In addition, construction equipment would not be in constant use during the 8-hour operating day. Impact devices such as pile drivers may be used for construction of the UPRR overcrossing and the span across the North Slough. Typical noise levels associated with the types of heavy equipment most likely to be utilized during development associated with the project are given in Table 4.12-5.

Table 4.12-5 Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA) at 50 Feet from Source
Air Compressor	80
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Jackhammer	88
Loader	80

Equipment	Typical Noise Level (dBA) at 50 Feet from Source
Paver	85
Pile-driver (Impact)	101
Pile-driver (Sonic)	95
Pneumatic Tool	85
Pump	77
Roller	85
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Truck	84

Source: FTA 2018

Operational Stationary Noise

The primary on-site noise sources associated with operation of the project would include noise from stationary heating, ventilation, and air conditioning (HVAC) equipment and other mechanical equipment and truck loading/unloading at the future light industrial and commercial uses. Since there is no specific development application associated with the project, potential operational stationary source impacts are addressed qualitatively and programmatically.

Operational Traffic Noise

Development accommodated by the project would generate motor vehicle trips, thereby increasing off-site traffic on area roadways. The project's traffic noise impacts are analyzed based on data provided by GHD, which is included as Appendix C to this EIR. Traffic noise levels for existing and project conditions were estimated using the FHWA traffic noise prediction model methodology. Traffic noise impacts are analyzed based on average daily traffic (ADT) roadway volume for existing, existing plus project, cumulative, and cumulative plus project conditions,[1] as well as speeds, and number of lanes data. The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic volumes, vehicle speeds, car/truck mix, number of lanes, and road width.

Groundborne Vibration

Construction activities have the greatest potential to generate ground-borne vibration affecting nearby receivers, especially during grading and excavation. The greatest vibratory source during construction activities is anticipated to be a pile driver during the construction of the proposed Newell Drive extension, particularly the overcrossing segment. Table 4.12-6 shows typical vibration levels for various pieces of construction equipment used in the assessment of construction vibration (FTA 2018).

Because groundborne vibration could cause physical damage to structures and is measured in an instantaneous period, vibration impacts are typically modeled based on the distance from the

[1] Cumulative conditions with the project are based on Year 2045 citywide residential and commercial growth, as well as projected regional land use growth.

location of vibration-intensive construction activities, which is conservatively assumed to be edge of a project site, to the edge of the nearest off-site structures.

Table 4.12-6 Typical Vibration Levels for Construction Equipment

Equipment	PPV (in./sec.) at 25 Feet
Pile Driver (Impact)	1.518
Pile Driver (Sonic)	0.734
Vibratory Roller	0.210
Hoe Ram	0.089
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Truck	0.076
Jackhammer	0.035
Small Bulldozer	0.003

Source: FTA 2018

Impact of the Environment on the Project

As a result of the Supreme Court decision regarding the assessment of the environment's impacts on projects (California Building Industry Association (CBIA) v. Bay Area Air Quality Management District (BAAQMD), 62 Cal. 4th 369 (No. S 213478) issued December 17, 2015), it is generally no longer the purview of the CEQA process to evaluate the impact of existing environmental conditions on a proposed project. Therefore, this environmental analysis does not consider the potential impacts of the environment (i.e., existing noise) on the project.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project result in generation of a substantial temporary 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?

Impact NOI-1 PROJECT CONSTRUCTION WOULD RESULT IN A TEMPORARY INCREASE IN AMBIENT NOISE. IMPLEMENTATION OF MITIGATION MEASURES NOI-1 AND NOI-2 WOULD REDUCE CONSTRUCTION NOISE LEVELS. THEREFORE, IMPACTS GENERATED BY TEMPORARY CONSTRUCTION NOISE WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Noise from project construction would temporarily increase ambient noise levels at nearby properties. Due to the programmatic nature of the project and since there are no specific plans or detailed construction information for individual development projects, it is not possible to determine exact noise levels, time periods of construction, or construction noise at adjacent properties. Therefore, a reasonable approach is taken based on the likely pieces of construction equipment used, and the estimated distance between the edge of the project site and nearby sensitive receivers.

Construction and demolition work would be limited to the hours of 7:00 a.m. and 7:00 p.m., consistent with the allowable construction hours from the American Canyon Municipal Code. No nighttime construction work is assumed as part of the project. Table 4.12-5 illustrates typical noise

levels associated with construction equipment at 50 feet. Noise would typically drop at a rate of approximately 6 dBA per doubling of distance. Noise levels would be approximately 6 dBA lower than shown in Table 4.12-5 at 100 feet from the noise source, and 12 dBA lower at 200 feet from the noise source.

Heavy construction equipment during grading and site preparation for future land use development would typically include bulldozers, excavators, front-end loaders, dump trucks, and graders. Based on the reference noise levels from Table 4.12-5, use of these types of equipment would generate a noise level of up to 85 dBA L_{max} at 50 feet. The nearest sensitive receivers are single-family residences, whose property lines are adjacent to the proposed Paoli Light Industrial and Paoli Light Industrial with Paoli Commercial Overlay pre-zoning. When non-pile driving construction activities are within approximately 150 feet of off-site receivers, the City's construction noise limit of 75 dBA L_{max} for residential receivers during the daytime could be exceeded. As such, a potentially significant noise impact could occur if construction of future development occurs within 150 feet of a residential receiver. Mitigation Measure NOI-1 would require measures to reduce construction noise levels. The nearest commercial uses are approximately 500 feet west of the project site on Paoli Loop Road. At this distance, non-pile driving construction noise would attenuate to approximately 65 dBA L_{max}, which would not exceed the City's noise standard of 80 dBA L_{max} for commercial receivers during the daytime. For non-pile driving activity, the City's construction noise limit of 85 dBA L_{max} for industrial receivers during the daytime would not be exceeded.

Construction of the Newell Drive extension could involve the use of pile drivers. For the purposes of this assessment, it is assumed that impact pile driving could be used, which is louder than vibratory or other alternative methods. As shown in Table 4.12-5, noise levels at 50 feet from pile driving would be up to 101 dBA L_{max} at 50 feet. The nearest off-site sensitive receiver to where the Newell Drive extension overcrossing over the UPRR railroad is a residence located approximately 850 feet to the south. At this distance, pile driving noise would attenuate to 76 dBA L_{max} or less, which could exceed the City's construction noise limit of 75 dBA L_{max} for residential receivers during the daytime. Therefore, this impact would be significant. Mitigation Measure NOI-2 would require measures to reduce noise levels from pile driving. Off-site commercial and industrial properties are located over 1,000 feet from the proposed UPRR overcrossing and the City's noise standards of 80 dBA L_{max} and 85 dBA L_{max} for commercial and industrial uses, respectively, would not be exceeded during pile driving.

Mitigation Measures

NOI-1 Construction Noise Reduction Measures

The following measures shall be implemented where future development construction sites are located within 150 feet of a sensitive receiver:

1. Mufflers. During excavation and grading construction phases, all construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers, consistent with manufacturers' standards.
2. Stationary Equipment. All stationary construction equipment shall be placed so that emitted noise is directed away from the nearest sensitive receivers.
3. Shielding and Silencing. Power construction equipment (including combustion engines), fixed or mobile, shall be equipped with noise shielding and silencing devices consistent with manufacturer's standards or the Best Available Control Technology. Equipment shall be properly maintained, and the project applicant or owner shall require any construction contractor to

keep documentation on-site during any earthwork or construction activities demonstrating that the equipment has been maintained in accordance with manufacturer's specifications.

4. Construction Staging Areas. Construction staging areas shall be located as far from noise-sensitive uses as reasonably possible and feasible in consideration of site boundaries, topography, intervening roads and uses, and operational constraints.
5. Smart Back-Up Alarms. Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction and in accordance with all applicable safety laws.
6. Equipment Idling. Construction vehicles and equipment shall not be left idling for longer than five minutes when not in use.
7. Workers' Radios. All noise from workers' radios, including any on-site music, shall be controlled to a point that they are not audible at off-site noise-sensitive uses.
8. Noise Complaint Response. Project applicants shall designate an on-site construction project manager who shall be responsible for responding to any complaints about construction noise. This person shall be responsible for responding to concerns of neighboring properties about construction noise disturbance and shall be available for responding to any construction noise complaints during the hours that construction is to take place. They shall also be responsible for determining the cause of the noise complaint (e.g., bad silencer) and shall require that reasonable measures be implemented to correct the problem. A toll-free telephone number and email address shall be posted in a highly visible manner on the construction site at all times and provided in all notices (mailed, online website, and construction site postings) for receiving questions or complaints during construction and shall also include procedures requiring that the on-site construction manager to respond to callers and email messages. The on-site construction project manager shall be required to track complaints pertaining to construction noise, ongoing throughout demolition, grading, and/or construction and shall notify the City of each complaint occurrence.
9. Temporary Noise Barriers. For non-pile driving construction activity within 150 feet of residences, erect temporary noise barriers at the edge of the construction site closest to residences. Temporary noise barriers shall be constructed with solid materials (e.g., wood) with a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the barrier and a height of at least 12 feet. If a sound blanket is used, barriers shall be constructed with solid material with a density of at least 1 pound per square foot with no gaps from the ground to the top of the barrier and be lined on the construction side with acoustical blanket, curtain or equivalent absorptive material rated sound transmission class (STC) 32 or higher.

Plans indicating compliance with these noise reduction measures shall be provided to the City for review and concurrence prior to project approval.

NOI-2 Construction Noise Reduction Measures During Pile Driving

The following measures shall be implemented during pile driving:

1. Alternative Pile Methods. For pile driving, the use of caisson drilling (drill piles), vibratory pile drivers, oscillating or rotating pile installation methods, and jetting or partial jetting of piles into place using a water injection at the tip of the pile shall be used instead of impact pile driving, where feasible.

2. Scheduling. Pile driving will be scheduled to have the least impact on nearby sensitive receivers.
3. Shrouding. Pile drivers with the best available noise control technology will be used. For example, pile driving noise control may be achieved by shrouding the pile hammer point of impact, by placing resilient padding directly on top of the pile cap, and/or by reducing exhaust noise with a sound-absorbing muffler.

Plans indicating compliance with these pile driving measures shall be provided to the City for review and concurrence prior to project approval.

Significance After Mitigation

With implementation of Mitigation Measures NOI-1 and NOI-2, construction noise levels from the project would be reduced below the City's construction noise thresholds. For non-pile driving construction within 150 feet, the use of temporary noise barriers would attenuate construction noise by approximately 15 dBA. This would reduce construction noise levels to 70 dBA L_{max} or less at the nearest off-site residences, which would not exceed the City's construction noise limit of 75 dBA L_{max} for residential receivers during the daytime. For pile driving at the Newell Drive extension overcrossing, alternate methods to impact pile driving would be considered, as feasible depending on soil conditions and other engineering constraints. The shrouding of pile driving equipment would attenuate pile driving noise levels by 10 dBA or more. This would result in mitigated construction noise levels of 66 dBA L_{max} or less at the nearest off-site residences, which would not exceed the City's construction noise limit of 75 dBA L_{max} for residential receivers during the daytime. Construction noise impacts would be less than significant with mitigation.

Threshold 1:	Would the project result in generation of a substantial 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?

Impact NOI-2 **DEVELOPMENT FACILITATED BY THE PROJECT COULD INCLUDE MECHANICAL EQUIPMENT (I.E., HVAC) AND ON-SITE ACTIVITIES WOULD BE REQUIRED TO COMPLY WITH APPLICABLE NOISE STANDARDS IN THE AMERICAN CANYON MUNICIPAL CODE BUT MAY STILL EXCEED NOISE THRESHOLDS FOR OFF-SITE SENSITIVE RECEIVERS. THEREFORE, OPERATIONAL STATIONARY SOURCE IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION. FURTHERMORE, WHILE DEVELOPMENT WOULD GENERATE AN INCREASE IN TRAFFIC NOISE, THE INCREASE WOULD NOT BE SIGNIFICANT. THEREFORE, PERMANENT TRAFFIC NOISE INCREASES DUE TO PROJECT OPERATION WOULD BE LESS THAN SIGNIFICANT.**

Development facilitated by the project would include industrial, commercial, and town center development throughout the project site that would generate on-site operational noise from stationary sources and off-site operational noise from vehicle trips.

Stationary and Loading Dock/Truck Noise

Noise generated by on-site stationary sources would be subject to the City's noise limits, established in Section 8.12.070 of the American Canyon Municipal Code (see Table 4.12-3 for the noise limits). For large buildings, HVAC units are typically located on the roof, where operational noise is greatly reduced by distance and the intervening building itself. For smaller buildings, HVAC units are often placed at ground level on a concrete pad adjacent to the building. Existing noise sensitive receivers, such as residences, could be affected by the operational noise from HVAC equipment placed on the project site.

Future light industrial uses may include loading docks or truck deliveries. Data show that truck unloading generates noise levels of approximately 40 L_{eq} and up to 75 dBA L_{max} at 50 feet (PlaceWorks 2012).

Since there is no specific development application associated with the project, specific details about the hours of operation, location and number of loading docks, and specific types of mechanical equipment are not known. It is possible that future industrial, commercial, or town center uses of the project could generate noise at the existing nearby residences that exceed the City's noise standards in Table 4.12-3 or the General Plan Policy 11.2.4 noise standard of 65 dBA $L_{dn.}$ This impact would be potentially significant. Implementation of Mitigation Measure NOI-3 would require that a noise analysis be prepared for future development and that measures be implemented to reduce operational noise.

Traffic Noise

The overall increase in traffic noise from the project was estimated using traffic data from GHD (GHD 2023). Table 4.12-7 summarizes the estimated project and cumulative traffic noise increases. As shown in Table 4.12-7, traffic noise due to the project would increase by up to 2.1 dBA L_{dn} on South Kelly Road, south of SR 12. Since the existing ambient noise on this roadway segment is 58.7 dBA L_{dn}, as shown in Table 4.12-2, the applicable threshold would be a 5 dBA CNEL increase. Since the estimated traffic noise increase on this segment would not exceed the 5 dBA CNEL threshold, this impact would be less than significant. Traffic noise increases would be less than 1.5 dBA CNEL on all other roadway study segments.

In addition, the proposed extension of Newell Drive would add a new source of roadway traffic noise to the project vicinity. Traffic noise levels for cumulative plus project conditions were estimated using the FHWA traffic noise prediction model methodology and data provided by GHD (GHD 2023). Under cumulative plus project conditions, the Newell Drive extension is estimated to have up to 28,072 vehicles per day. The nearest sensitive receiver to the proposed extension is a residence located approximately 850 feet to the south on Watson Lane. At this distance, traffic noise from the proposed Newell Drive extension would result in noise levels of up to 56 dBA L_{dn}, which would not exceed the City's exterior standard of 65 dBA L_{dn} and impacts from the proposed Newell Drive extension would be less than significant.

Table 4.12-7 Summary of Project and Cumulative Traffic Noise Increases

Roadway Segment	Existing ADT	Existing + Project ADT	Cumulative ADT	Cumulative + Project ADT	Project Noise Increase (dBA Ldn)	Cumulative Increase (dBA Ldn)	Project Cumulative Contribution (dBA Ldn)
State Route 29 - South of State Route 37	24,051	23,903	26,193	26,059	0.0	0.3	0.0
State Route 29- North of State Route 37	43,483	43,492	40,578	40,444	0.0	-0.3	0.0
State Route 29 - South of Mini Drive	37,492	37,915	37,689	37,666	0.0	0.0	0.0
State Route 29 - North of Mini Drive	43,469	44,009	43,570	43,575	0.1	0.0	0.0
State Route 29 - North of American Canyon Road	49,579	49,523	50,923	51,132	0.0	0.1	0.0
State Route 29 - South of Napa Junction Road	40,762	42,107	35,274	36,053	0.1	-0.5	0.1
State Route 29 - North of Napa Junction Road	59,044	62,507	59,796	60,310	0.2	0.1	0.0
State Route 29 - North of Green Island Road	60,263	59,161	62,745	62,189	-0.1	0.1	0.0
State Route 29 - South of State Route 12	59,200	58,100	63,560	62,560	-0.1	0.2	0.0
State Route 29 - North of State Route 12	88,600	87,000	107,200	106,300	-0.1	0.8	0.0
Airport Boulevard - West of State Route 29	10,500	10,298	10,551	10,341	-0.1	-0.1	-0.1
State Route 12 - East of North Kelly Road	35,033	35,922	35,717	36,038	0.1	0.1	0.0
State Route 37 - West of State Route 29	39,980	39,788	39,156	39,074	0.0	-0.1	0.0
State Route 37 - East of State Route 29	62,495	62,352	63,634	63,592	0.0	0.1	0.0
American Canyon Road - West of State Route 29	15,330	14,396	10,744	10,935	-0.3	-1.5	0.1
American Canyon Road - East of Flosden Road	10,771	9,857	14,419	14,194	-0.4	1.2	-0.1
Flosden Road - South of American Canyon Road	21,510	21,450	29,534	29,362	0.0	1.4	0.0
Newell Drive - North of American Canyon Road	9,685	9,129	28,695	28,072	-0.3	4.6	-0.1
Newell Drive - South of Napa Junction Road	-	-	19,537	21,790	-	-	0.5
South Kelly Road - South of State Route 12	1,602	2,570	11,310	11,310	2.1	8.5	0.0

Notes:

[1] Newell Drive south of Napa Junction Road does not exist in 2022.

ADT = average daily trips

Source: GHD 2023

Mitigation Measures

NOI-3 Operational Stationary Source Noise Control Analysis and Measures

Prior to the issuance of a building permit for projects adjacent to the property lines of noise-sensitive uses that could exceed noise standards from the American Canyon Municipal Code or General Plan, a noise analysis shall be conducted to assess and mitigate potential noise and impacts related to the operations of the project. The noise analysis shall be conducted by a qualified and experienced acoustical consultant or engineer and shall follow the latest CEQA guidelines, practices, and precedents. Measures to reduce operational stationary sources to acceptable levels include, but are not limited to, operational hour restrictions, equipment optimization, shielding, mufflers, acoustical louvers, sound blankets, and sound walls. The noise analysis and recommended measures to implement shall be provided to the City for review and concurrence prior to project approval.

Significance After Mitigation

With implementation of Mitigation Measure NOI-3 operational stationary noise from future projects adjacent to noise-sensitive uses would be reduced to acceptable noise levels, consistent with noise standards from the City's Municipal Code and General Plan. Operational stationary source noise impacts would be less than significant with mitigation.

Threshold 2:	Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Impact NOI-3 PROJECT CONSTRUCTION WOULD GENERATE TEMPORARY VIBRATION IN THE PROJECT AREA. HOWEVER, CONSTRUCTION-RELATED VIBRATION IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction

Construction activities would result in varying degrees of groundborne vibration depending on the equipment and methods employed. As depicted in Table 4.12-6, the greatest source of vibration during non-pile driving construction activities would be caused by the use of vibratory rollers, which would generate vibration levels of up to 0.21 in/sec PPV at a distance of 25 feet (FTA 2018). Beyond distances of approximately 25 feet, vibration levels from a vibratory roller would attenuate below the threshold of 0.2 in/sec PPV. There are no existing residential structures within 25 feet of where construction would occur. As such, vibration impacts during non-pile driving activities would be less than significant.

Additionally, as discussed in Impact NOI-1, it is assumed that pile driving would be used for construction of the overcrossing. Vibration levels from pile driving would be up to 1.518 in/sec PPV at 25 feet (FTA 2018). The nearest residence to the proposed overcrossing where pile activity could occur is approximately 850 feet to the south. At this distance, vibration from pile driving would attenuate to 0.01 in/sec PPV or less, which would not exceed the threshold of 0.2 in/sec PPV. As such, overall project construction vibration impacts would be less than significant.

Operations

The project would include truck movement activity at the project site. These movements would generally be low-speed (i.e., less than 15 miles per hour) and would occur over new, smooth surfaces. Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses

and notes that "heavy trucks, and quite frequently buses, generate the highest earthborn vibrations of normal traffic." Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (5 meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks and poor roadway conditions (while such trucks were moving at freeway speeds). This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)" (Caltrans 2020). Since the project's truck movements would be a low speed (not at freeway speeds), would be over smooth surfaces (not under poor roadway conditions), project-related vibration associated with truck activity would not result in excessive groundborne vibrations. No vehicle-generated vibration impacts would occur. In addition, there are no sources of substantial groundborne vibration associated with the project, such as rail or subways. The project would not create or cause any vibration impacts due to operations.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 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?

Impact NOI-4 THE PROJECT IS OUTSIDE THE NAPA COUNTY AIRPORT NOISE CONTOURS AND THE PROJECT WOULD NOT EXPOSE PEOPLE WORKING IN THE PROJECT SITE TO EXCESSIVE NOISE LEVELS. NO IMPACT WOULD OCCUR.

The nearest airport to the project is the Napa County Airport, approximately 1.2 miles to the northwest. According to the ALUCP, the project site is outside of the Napa County Airport's 55 dBA CNEL/L_{dn} noise contour (Napa County ALUC 1999). Therefore, people working in the project area would not be exposed to excessive aircraft noise level and there would be no impact.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

There would be no impact and no mitigation would be required.

4.12.4 Cumulative Impacts

Construction Noise

Construction of future development projects in the City and adjacent County area would produce temporary noise impacts that would be localized to a project site and sensitive receivers within the immediate vicinity. Therefore, only sensitive receivers located in close proximity to each

construction site would be potentially affected by each activity. Nonetheless, construction activities associated with individual development projects accommodated under the project may overlap for some time with construction activities for other development projects. If unmitigated, the combination of construction noise levels could exceed City noise standards.

With implementation of Mitigation Measure NOI-1, construction noise levels associated with the project would be reduced to below the City's construction noise thresholds. For non-pile driving construction within 150 feet, the use of temporary noise barriers would attenuate construction noise by approximately 15 dBA. This would reduce construction noise levels to 70 dBA Lmax or less at the nearest off-site residences, which would not exceed the City's construction noise limit of 75 dBA Lmax for residential receivers during the daytime. Assuming that two simultaneous construction projects were both within 150 feet of a nearby residences, the combined mitigated construction noise levels would be up to 73 dBA Lmax. It should be noted that since the criterion is a maximum noise level it is unlikely, though possible, that the two loudest activities would be occurring simultaneously at both construction sites. Nevertheless, because the project would include the implementation of Mitigation Measure NOI-1, the project's contribution to a cumulative impact would be less than considerable.

Operational Noise

Traffic Noise

A significant cumulative traffic noise increase would be identified if a cumulative traffic noise increase of greater than the 1.5 dBA, 3 dBA, and 5 dBA is calculated. A cumulatively considerable contribution could occur if project traffic is calculated to contribute 1 dBA or more to this cumulative impact.

As shown in Table 4.12-7, traffic noise due to cumulative conditions would increase by up to 8.5 dBA L_{dn} on South Kelly Road south of SR 12. Since the existing ambient noise level on this roadway segment is 58.7 dBA L_{dn}, as shown in Table 4.12-2, the applicable threshold would be a 5 dBA increase. Since the estimated traffic noise increase on this segment would exceed the 5 dBA threshold, the cumulative traffic noise impact would be significant. However, as shown in Table 4.12-7, the project would not contribute to this cumulative impact (i.e., the project's contribution to this cumulative impact is 0.0 dBA).

As shown in Table 4.12-7, traffic noise due to cumulative plus project conditions would increase by up to 0.5 dBA L_{dn} on Newell Drive south of Napa Junction Road. Since the estimated traffic noise increase would not exceed 1 dBA, the project's contribution to cumulative traffic noise would be less than cumulatively considerable.

As shown in Table 4.12-7, cumulative traffic noise conditions would increase to 4.6 dBA L_{dn} on Newell Drive north of American Canyon Road. Since the existing ambient noise level on this roadway segment is 63.4 dBA $L_{dn,}$ as shown in Table 4.12-2, the applicable threshold would be a 3 dBA increase. Since the estimated traffic noise increase on this segment would exceed the 3 dBA threshold, the cumulative traffic noise impact would be significant. However, as shown in Table 4.12-7, the project would not contribute to this cumulative impact (i.e., the project's contribution to this cumulative impact is less than 0.0 dBA).

Cumulative plus project traffic noise increases would be less than 0.5 dBA L_{dn} on all other roadway study segments and cumulative impacts on those segments would be less than significant.

Stationary Noise

Noise from stationary sources such as HVAC and truck loading docks is highly localized. The closest cumulative project is the Watson Ranch Specific Plan, approximately 0.1 mile to the southeast of the project site. At this distance and since there are no industrial or commercial uses proposed as part of the project in the southern portion of the project site, stationary noise from the project would not combine with other cumulative projects to result in a cumulative impact. As such, cumulative impacts would be less than significant.

Vibration

Although there could be other cumulative projects simultaneously under construction near the project, the potential for construction vibration impacts is within relatively close distances (e.g., within approximately 25 feet for a vibratory roller). Since no two construction projects would both be within 25 feet of a given sensitive structure, cumulative vibration impacts would be less than significant.

Airport Noise

Because the project would have no noise impact related to being located near an airport, the project would not contribute to a cumulative impact. As such, there would be no cumulative impact related to being located near an airport and is not discussed further.

4.13 Population and Housing

This section summarizes existing and projected population and housing in the City and analyzes the impacts on population and housing due to the project.

4.13.1 Setting

a. Population

The City of American Canyon was incorporated in 1992. American Canyon was developed following World War II, with the McKnight Acres subdivision in the 1940s and Rancho Del Mar in the 1950s (City of American Canyon 2022). In 1992, when American Canyon was incorporated, the population was 8,341 (California Department of Finance [DOF] 2000). By the year 2000, the population grew approximately 17 percent to 9,774 (DOF 2000). From 2000 to 2010, the City experienced a rapid population growth and population increased approximately 99 percent to 19,454 (DOF 2010b). Growth after 2010 slowed and experienced an approximately seven percent population increase from 2010 to 2020 (DOF 2020a). From 2020 to 2022, the City's population continued to slowly increase from 21,544 residents in 2020 to 21,658 residents in 2022, representing a 0.5 percent increase (DOF 2022a).

b. Housing

A household is defined as a group of people who occupy a housing unit (U.S. Census Bureau 2021). A household differs from a dwelling unit because the number of dwelling units includes both occupied and vacant dwelling units. Typically, not all the population in a given area lives in households. A portion of the population lives in group quarters, such as board and care facilities, while others are homeless.

Housing Units

Table 4.13-1 shows the growth in number of housing units in the City, County, and State between 2010 and 2021. As shown in Table 4.13-1, between 2010 and 2022, 515 units were added to the City's housing inventory resulting in an overall growth of 8.6 percent during this period. Between 2010 and 2022, the County grew at a slower rate of 1.7 percent. The State also grew at a slower rate of 6.7 percent.

Table 4.13-1 Housing Inventory in the City, County, and State

	American Canyon		Napa County		California	
	2010	2022	2010	2022	2010	2022
Total Housing Units	5,982	6,497	54,759	55,685	13,670,304	14,583,998
Occupied	5,657	6,299	48,876	49,719	12,568,167	13,612,650
Vacancy Rate	5.4%	3.0%	10.7%	10.7%	8.1%	6.7%
Percent Change in Total Housing Units from 2010 to 2022	8.6%		1.7%		6.7%	

Note: The number of housing units added to American Canyon exceeds that of the total number of housing units added to Napa County. This can be attributed to the removal of housing units in Napa County between 2010-2021.
Source: DOF 2010a (for 2010 data) and DOF 2022b (for 2022 data)

In 2022, approximately 5,012 of the housing units in the City were single-family detached homes, approximately 48 units were single-family attached homes, approximately 571 units were multi-family units (buildings of at least two units), and approximately 865 units were mobile homes (DOF 2022b).

Household Size

Small households (one to two persons per household [pph]) traditionally occupy units with zero to two bedrooms; family households (three to four pph) normally occupy units with three to four bedrooms. Large households (five or more pph) typically occupy units with four or more bedrooms. The number of units in relation to the household size may reflect preference and economics. Many small households obtain larger units, and some large households live in small units, for economic reasons. Table 4.13-2 compares the size of households in the City, County, and State in 2010 and 2022.

Table 4.13-2 Household Size in the City, County, and State

	American Canyon		Napa County		California	
	2010	2022	2010	2022	2010	2022
Household Size (pph)	3.43	3.43	2.69	2.61	2.90	2.81
Percent Change from 2010 to 2022	0%		3.0%		3.1%	

Source: DOF 2020b (for 2010 data) and DOF 2022b (for 2022 data)

As shown in Table 4.13-2 the average household size in American Canyon was approximately 3.43 pph for both the year 2010 and 2022. Over the same period, household size in the County decreased from 2.69 to 2.61, a decrease of approximately 3 percent. Household size in the State decreased from 2.90 to 2.81, a decrease of approximately 3.1 percent. Between 2010 and 2019, the City maintained a higher average household size in comparison to the County and State average household sizes.

a. Jobs Housing Ratio

Information on the jobs-housing ratio is provided for informational purposes only. The jobs-household ratio in a jurisdiction is an overall indicator of jobs availability within the area. A balance of jobs and housing can give residents an opportunity to work locally and avoid employment commutes to other places in the region. DOF estimates that American Canyon has a ratio of 0.95 jobs per dwelling unit. Association of Bay Area Governments' (ABAG) regional map depicting projected household and job growth also illustrates a 1 percent job growth in south Napa County, including American Canyon, as a share of the regional job growth (ABAG 2021a). That amounts to more than one job per household, which means that workers do not have to travel to other communities to find employment. Most households have more than one worker; therefore, a ratio of jobs to housing should be above 1:1 to have a balance of jobs to households.

b. Projections

Table 4.13-3 presents population, dwelling units, and employment projections by DOF and ABAG through 2040 for American Canyon. It is estimated the population of American Canyon will grow approximately 17 percent between 2022 and 2040 (DOF 2022b, ABAG 2019). This translates to an estimated 3,622 new residents by 2040. The available data shows dwelling units decreasing in American Canyon; however, this is unlikely the case because American Canyon will be building

residences to fulfill its Regional Housing Needs Allocation (RHNA) of 622 residential units. The City's Housing Element is currently being updated based on the 6th Cycle State requirements for the 2023-2031 planning horizon. The City's Housing Element will help facilitate the development of housing. Jobs are expected to increase 31 percent between 2021 and 2040. American Canyon's jobs-housing ratio would increase by approximately 0.32.

Table 4.13-3 American Canyon Population, Dwelling Units, and Employment

American Canyon	2022	2040	Change 2022 to 2040	Percent Change 2021 to 2040
Population	21,658	25,280	3,622	17%
Dwelling Units	6,497	6,420	77	-1%
Jobs	6,210[1]	8,165	1,955	31%
Jobs-Housing Ratio	0.95	1.27	0.32	14%

Source: ABAG 2019, DOF 2022b
[1] Data is from most recent projections for the year 2020 (ABAG 2019)

4.13.2 Regulatory Setting

a. Federal Regulations

There are no federal regulations that would be applicable to the project.

b. State Regulations

Senate Bill 375

Senate Bill 375 (SB 375) is summarized in Section 4.11, *Land Use and Planning.*

c. Local Regulations

There are no local regulations that would be applicable to the project.

4.13.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on population and housing if it would:

1. Induce substantial unplanned population growth in an area either directly or indirectly; or
2. Displace substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere.

For purposes of this analysis, substantial population growth is defined as growth exceeding ABAG population forecasts for American Canyon. Substantial displacement would occur if implementation of the project would displace more residences than would be accommodated through growth accommodated by the project.

Methodology

Population and housing trends in the City were evaluated by reviewing the most current data available from, the DOF, ABAG, and the RHNA Plan. Impacts related to population are generally social or economic in nature. Under CEQA, a social or economic change generally is not considered a significant effect on the environment unless the changes are directly linked to a physical change.

LAFCo has identified the availability of affordable housing as an issue of local interest that should be addressed in the CEQA documentation. Because this project would be limited to commercial, industrial, and town center uses, the project would not affect the availability of affordable housing. The City of American Canyon has an affordable housing nexus fee, which would require payment by the applicants of any future development on the project site and would fund affordable housing. As such, because the project would not affect the availability of affordable housing and because the project would require the payment of an impact fee to fund affordable housing, the impacts on affordable housing are not discussed any further.

b. Project Impacts and Mitigation Measures

Threshold 1:	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)?

Impact POP-1 THE PROJECT WOULD NOT DIRECTLY OR INDIRECTLY INDUCE SUBSTANTIAL UNPLANNED POPULATION GROWTH. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would not result in any direct population growth because no residences would be developed as a part of this project. The project could, however, result in indirect population growth, as commercial, industrial, and visitor-serving/hotel uses would result in both temporary and permanent employment during construction and operation. Construction would be temporary and not require construction workers to permanently relocate to American Canyon. Construction workers would most likely already be from American Canyon or the surrounding San Francisco Bay area and would commute to the project site. Construction would not contribute to substantial unplanned growth in the area.

As described in Chapter 2, *Project Description*, the project is expected to generate 1,650 new employees. Most of the jobs could be filled with the existing population of American Canyon. The current unemployment rate in American Canyon is 2.7 percent or approximately 585 people (EDD 2022). Employment for the project could be pulled from the current pool of unemployed persons in American Canyon. In addition, American Canyon's population is expected to grow 17 percent by the year 2040 (ABAG 2019).

The Final ABAG RHNA Plan assigned American Canyon 622 housing units for the years 2023 through 2031 to accommodate the state's housing needs (ABAG 2021b). While the project may induce population growth, there is sufficient planned housing and a need for local jobs that would accommodate potential population growth from the project's employment. As such, the project would not induce substantial unplanned population growth and impacts would be less than significant.

In addition, the project would include an extension of Newell Drive. Newell Drive currently has a dead end at Donaldson Way and with the extension of Newell Drive, this roadway would be extended north and would border the eastern boundary of the Watson Ranch Specific Plan and then

cross through the project site until it connects to Paoli Loop Road. This roadway would serve the planned development for both the Watson Ranch Specific Plan and the project. As such, this roadway extension would serve already planned growth. As such, impacts on indirect population growth due the Newell Drive extension would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2:	Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Impact POP-2 THE PROJECT WOULD NOT DISPLACE SUBSTANTIAL NUMBERS OF EXISTING PEOPLE OR HOUSING AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The areas where the proposed Railroad Right of Way, Town Center, and Paoli Light Industrial pre-zone would be located have no existing housing or people who reside in those areas; therefore, the project would not result in any displacement. In addition, there are no existing housing or people that reside in the area where the Newell Drive extension would be located; therefore, the project would not result in any displacement. The area with the proposed Residential Estate pre-zone does have existing residences; however, the application of the Residential Estate pre-zoning is to acknowledge these existing uses and no displacement of any residences would occur.

There is one residence located within the Paoli Light Industrial with Paoli Commercial Overlay pre-zoning that would be displaced. Displacement of one residential unit would not be considered substantial. Therefore, this displacement would not necessitate the construction of replacement housing elsewhere and impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.13.4 Cumulative Impacts

The geographic scope of the cumulative population/housing analysis is the City of American Canyon. Population growth in the City would be a result of any future development that would be allowed within its General Plan, or any Specific Plans developed for the City. For example, two large projects within the City that are expected to induce population growth are the Broadway District Specific Plan (1,200 new residential units) and the Watson Ranch Specific Plan (1,253 residential units). This population growth, however, would be considered planned because the City developed Specific Plans to plan for the population growth. In addition, the project is not adding any residential development and instead would provide commercial, industrial, and town center uses, which would provide new employment opportunities for the existing population. As such, the projects

contribution to a cumulative impact related to unplanned population growth would be less than significant.

Future development in the City could result in the demolition of housing. However, as described in Impact POP-1, the City could facilitate development of up to 622 housing units by 2031 and additional housing would be constructed to meet the City's housing demand. As such, the cumulative impact from displacement of people or housing would be less than significant.

4.14 Public Services and Recreation

This section analyzes the potential effects on public services and recreation related to implementation of the project. Impacts on schools are addressed in Section 4.19, *Effects Found Not to be Significant.*

4.14.1 Setting

a. Fire Protection

Fire protection, emergency medical services, and technical rescue services in the City of American Canyon are provided by the American Canyon Fire Protection District (ACFPD). The ACFPD provides a wide range of programs, including fire suppression, training, emergency medical services, hazardous materials cleanup, public education, and urban search and rescue. The ACFPD provides a response to an approximately 15 square mile area that includes the American Canyon city limits and nearby unincorporated areas of southern Napa County (ACFPD 2015). ACFPD is a subsidiary special District of the City of American Canyon, with the elected City Council members serving as the ex-officio Board of Directors. ACFPD is funded primarily through property taxes and voter approved special taxes, ACFPD's budget is separate and distinct from the City of American Canyon.

Personnel, Facilities, and Equipment

The ACFPD currently employs 23 career fire personnel (City of American Canyon 2022a) and is staffed daily with a minimum of six personnel, of which a minimum of two firefighters are Paramedics. Staffing is accomplished by having twenty-one career firefighters assigned to three platoons referred to as "A," "B," and "C" shift. All sworn ACFPD employees are trained to the level of Emergency Medical Technician or as an Emergency Medical Technician-Paramedic and can provide advanced live support (ACFPD 2022a). In 2021, the ACFPD responded to 1,689 incidents in their jurisdiction, as well as 98 incidents in Napa County and 61 incidents in Vallejo (ACFPD 2022a). The typical response time by the ACFPD is approximately 5 minutes or less.

The ACFPD operates out of two stations located at 225 James Road and 911 Donaldson Way East, both located centrally within the City. The closest fire station is approximately 3 miles south of the project site. In total, ACFPD has eight firefighting apparatus and five support vehicles. The district also maintains two inflatable rescue boats, and three towable technical rescue equipment trailers (ACFPD 2020). A fire engine is staffed by at least one firefighter who is also a licensed paramedic on a 24/7 basis. The District and American Medical Response have established a public-private partnership that enhances the emergency medical system in Napa County and are working together to provide shorter response times. Table 4.14-1 summarizes ACFPD equipment (ACFPD 2022a).

Services Provided

The Fire District provides emergency operations, fire suppression, advanced life support emergency medical care, and rescue in a public-private partnership with American Medical Response. Other services and functions include fire prevention, public education, business fire safety inspections, plan review, construction site inspection, code enforcement, fire investigation, public education outreach programs, disaster preparedness, emergency operations plan development, emergency operations center operations, and coordination of disaster preparedness training. The Fire District is also recognized by California Emergency Management Agency as a Type 1 (heavy) rescue single resource.

Aid Agreements

The ACFPD participates in the Napa Interagency Hazard Team, which responds to hazardous materials incidents that occur within the County (ACFPD 2022a). The ACFPD also participates in the Napa Interagency Rescue Team, which is a joint search and rescue team comprised of fire department personnel from other agencies within Napa County (ACFPD 2022a). In addition, the ACFPD participates in both mutual aid and automatic aid agreements to multiple agencies in Napa and Solano Counties (City of American Canyon 2022a).

Incidents

ACFPD responded to 1,868 incidents in 2021 (ACFPD 2022a). Rescues and emergency services accounted for 63 percent of the incidents (ACFPD 2022a). The Fire District responded to 62 incidents in the industrial area near the Napa County Airport in 2020, with rescue and emergency services accounting for 48 percent of the calls (ACFPD 2022a).

Table 4.14-1 ACFPD Equipment

Equipment	Equipment Features
Engine 211	▪ Spartan Cab and Chassis ▪ 1,500 Gallons Per Minute Single Stage Pump ▪ 500 Gallon Water Tank ▪ 20 Gallon of Class A Foam Tank ▪ Advanced Life Support
Engine 411	▪ 500 Gallon Water Tank ▪ 750 Gallon Per Minute Darley Pump
Truck 11	▪ 1,500 Gallon Per Minute Single Stage Pump ▪ 500 Gallon Water Tank ▪ 20 Gallons of Class A & B Foam
Rescue 11	▪ 25 Kilowatt Power Take Off Generator ▪ LED Telescopic Lighting System ▪ Cascade Self Contained Breathing Apparatus Breathing Air Fill System
Brush 11	▪ 350 Gallon Water Tank ▪ 10 Gallon Class A Foam ▪ 180 Gallon Per Minute Darley Pump ▪ Advanced Life Support
Engine 11	▪ 2018 Pierce Enforcer Cab and Chassis ▪ 1,500 Gallon per minute single stage pump ▪ 500 gallon water tank ▪ 20 gallon class A foam tank ▪ Advanced Life Support

Source: City of American Canyon 2022d

Response Times

ACFPD has an established response time standard of first unit arrival within 5 minutes (total travel time) for 90 percent of all incidents (ACFPD 2022a). ACFPD responded to 13 percent of calls within 5 minutes in the industrial area near the Napa County Airport in 2021 (ACFPD 2022a).

Insurance Services Office Rating

ACFPD has an Insurance Services Office (ISO) rating of Class 2 on a scale of 1 to 10, with 1 being the best (City of American Canyon 2022a). An ISO rating accounts for factors such as emergency communication systems, personnel, training, equipment, and water supply.

Police Protection

The American Canyon Police Department (ACPD) provides police protection services within the City through a contract with the Napa County Sheriff's Office. The ACPD is staffed by Napa County Sheriff's Office personnel who wear ACPD uniforms. ACPD officers serve a variety of roles including patrol, K-9, Drug Abuse Resistance Education, investigations, communications, and school resources.

The ACPD operates out of one station located at 911 Donaldson Way East, approximately 1.3 miles south of the project site. For the Fiscal Year 2021/2022 the ACPD was staffed with 24 sworn officers, two police technicians, and one administrative clerk (ACPD 2022). At a minimum, there are three officers on duty 24 hours a day, 7 days a week and the ACDP ratio is 1.1 offers per 1,000 residents (City of American Canyon 2020). The 24 sworn officers are comprised of the following:

- 1 Chief
- 4 Sergeants
- 2 Traffic Officers
- 2 K-9 Handlers
- 2 School Resource Officers
- 1 Community Resource Officer
- 12 Patrol Officers

Between 2014 and 2021, ACPD responded to between 15,903 and 18,698 calls for service annually (ACPD 2022).

b. Parks and Recreation

American Canyon has multiple recreational opportunities. There are 22 parks within city limits that total 79 acres and vary in size from 0.25 to 10 acres (American Canyon 2012). Amenities include: picnic areas, diamond baseball fields, rectangle fields, outdoor basketball multi-use courts, tennis courts, playgrounds, dog parks/off leash areas, skate parks, swimming pool, and trails.

The City's Parks and Recreation Department is responsible for the maintenance of park land and City recreation facilities, as well as planning all City-sponsored recreation classes, programs, and special events. The City also jointly manages 10 miles of the Napa River Bay Trail with the California Department of Fish and Wildlife and the Napa County Parks and Open Space District (City of American Canyon 2022b). Additionally, the Newell Open Space Preserve includes 620 acres of open space east of the City and is connected via Newell Creek (City of American Canyon 2022c).

There are also several additional nearby open space areas, including the La Vigne Open Space, Lynch Canyon Open Space, Napa-Sonoma Marshes Wildlife Area, Fagan Marsh Ecological Reserve, and Bull Island. Beyond the nearby open space areas and trails provided in Napa and Solano Counties, there are also other nearby regional parks in Sonoma and Marin counties, as well as park and open space amenities provided through the East Bay Regional Parks District, California State Parks system, and

the National Parks Service lands. According to the Bay Area Open Space Council, there are almost 1.4 million acres of regional trails and open space areas that are currently provided in the Bay Area (Bay Area Open Space Council 2014). By 2027, the Bay Open Space Council predicts that 2 million acres of regional trails and open space areas would be available for users.

There are several parks located near the project site that may be utilized by employees or visitors. Main Street Park is located approximately 0.6 mile south of the project site, Gadwall Park is located approximately 1.1 miles southwest of the project site, and Newell Open Space is located 1.2 miles southeast of the project site.

c. Library Services

Library services in the City are provided by the Napa County Library system at the American Canyon Library. This library, located at 300 Crawford Way approximately 1.5 miles south of the project site, is part of the four libraries within the Napa County Library system. The library consists of a 55,550-piece collection (books, DVDs, music CDs, audiobooks, magazines, and subscriptions to area newspapers), a group study area that can accommodate 18 people, 28 computers, and a meeting room, which can seat up to 100 people for a total of 16,000 sf of usable space. During fiscal year 2017/2018, the library had approximately 8,669 registered users (County of Napa 2022).

4.14.2 Regulatory Setting

a. Federal Regulations

There are no federal regulations that would be applicable to the project.

b. State Regulations

California Fire and Building Codes

The State of California provides minimum standards for building design through the California Building Code (CBC), which is located in Part 2 of Title 24, California Building Standards Code, of the California Code of Regulations. The CBC is based on the International Building Code but has been amended for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local building officials for compliance with the CBC. Typical fire safety requirements of the CBC include: the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

c. Local Regulations

City of American Canyon General Plan

The City's Public Services and Facilities Element of the General Plan address the following goals:

Goal 6A: Maintain a high level of fire protection and emergency services to City/District businesses and residences.

Goal 6B: Ensure a high level of police protection for the City's residents, businesses and visitors.

Goal 6C: Ensure the enhanced provision of library services for the City's residents and businesses.

The City's Parks and Recreation Element of the General Plan addresses the following goals:

Goal 7: Enrich the quality of life in American Canyon by providing parks, trails, and recreational services for all of the City's residents.

Goal 7A: Provide a variety of parks and trials that serve the diverse recreational needs of American Canyon's residents and take into account the unique features of the City's natural environment.

Goal 7B: Provide adequate parkland acreage in both location and quantity to meet the range of recreational needs of existing and future residents and preserve natural resources within the City of American Canyon.

Goal 7C: Ensure that American Canyon's parks are developed so that buildings, open air facilities, and landscaping are unified and functionally related.

Goal 7D: Ensure that City parks are properly operated and maintained in the most effective and efficient manner possible.

Goal 7E: Develop park programming that provides a variety of active and passive activities for American Canyon's residents.

The City's Circulation Element of the General Plan addresses the following goals:

Guiding Policy 1.1: Community Priorities. Safe and convenient access to activities in the community is provided by a well-designed local roadway system. That system serves the community's primary need for mobility and includes a planned hierarchy of roadways to meet that need. The following Community Priorities relate most directly to this Element:

- Encourage and foster a strong sense of community and safety, as well as the "hometown" feeling by creation of a town center through land use and circulation planning.
- Improve a hierarchy of roadway networks to achieve and maintain acceptable traffic LOS and provide a citywide system of bicycle lanes and recreational trails that improve accessibility without the use of an automobile.
- Improve SR-29 so that it serves as a visually attractive gateway into the City while providing access to commercial businesses and serving intra and interregional traffic and goods movement.

  Policy 1.19 Complete Streets. When constructing or modifying transportation facilities, consistent with Resolution 2012 72, "Complete Streets Policy of the City of American Canyon", strive to provide for the movement of vehicles, commercial trucks, alternative and low energy vehicles, transit, bicyclists and pedestrians appropriate for the road classification and adjacent land use.

  Policy 2.5 Provision of bicycle facilities. Facilities for bicycle travel (Class I bike/multiuse paths; Class II bike lanes, and Class III bike routes) shall be provided to complete a continuous system of cyclists as shown on Figure 5 (The bicycle network map).

  Policy 2.20 Bicycle Master Plan. The NVTA Countywide Bicycle Master Plan for the City of American Canyon, as it may be amended from time to time, links all community centers, civic areas, schools, and parks in the City and connects to other neighboring bikeway networks. This plan is hereby incorporated by reference into the City of American Canyon General Plan.

American Canyon Fire Protection District Long-Range Master Plan

The ACFPD Long-Range Master Plan, (LRMP) guides the efficient future growth and development of the Fire District to provide the community of American Canyon with the highest possible level of service balanced with long term financial sustainability. Adopted in October 2022, (Resolution 2022-26) the LRMP identifies recommendations to improve long-range planning and delivery of fire and emergency services to the community (ACFPD 2022b).

The Plan recommendations relate to operations, procedures, and community involvement to deliver desired levels of service at the most efficient cost. To maintain long-range service levels, the LRMP recommends construction of a new relocated Fire Station 211.

Impact Fees

Measure B, 1980 and Resolution 83-4 as amended by Resolution 2022-11

In 1980, voters approved Measure B, a special tax assessment to maintain levels of fire protection services in American Canyon. All property and mobile homeowners in American Canyon are required to pay this fee. The fee is calculated based on the physical building characteristics of a project, its use, and its immediate surroundings, to determine the gallons per minute that would be utilized to put out the most serious fire likely to occur near the development. Currently, single-family residential pays $0.2585 per square foot, multi-family residential pays $0.3154 per square foot, commercial uses pay $0.4731 per square foot, and industrial uses pay $0.5738 per square foot.

American Canyon Municipal Code Chapter 15.08

Chapter 15.08 of the American Canyon Municipal Code establishes the Civic Facility and Park Impact Fee for all residential, accessory dwelling unit, commercial, office, and industrial developments. The fee is calculated by unit or by square foot depending on the type of development. The Civic Facility and Park Impact Fees collected are utilized for the expansion of City Hall, provision of additional support for the police station, support for the Aquatic Center offices, construction of the City library, corporate yard expansion, public parks, park facilities, and other offsite improvements.

4.14.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on public services and recreation if it would:

1. 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 following public services:
    a. Fire Protection
    b. Police Protection
    c. Schools

d. Parks
e. Other public facilities

2. 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; or
3. Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

Threshold 1c. regarding schools is addressed in Section 4.19, *Effects Found Not to be Significant.*

Methodology

Impacts on fire and police protection services are considered significant if an increase in population or development levels would result in inadequate staffing levels, response times, and/or increased demand for services that would require the construction or expansion of new or altered facilities that have an adverse physical effect on the environment. Impacts on schools are determined by analyzing the project's effect on the capacity at existing NVUSD schools. The analysis considers whether an increase in use of the City's parks and recreation facilities resulting from the project would cause the substantial physical deterioration of those facilities (e.g., disturbance of vegetation, accelerated wear on sports facilities and fields, erosion along trails, and an increased potential for increased graffiti and litter) or in the need for new or expanded facilities. The analysis further considers whether the project would diminish or otherwise adversely affect recreational opportunities and existing facilities in the vicinity of the project site, based on existing issues with facility capacity. Impacts on library services are considered significant if an increase in population or development levels would result in an increased demand for library services that would require the need for new or physically altered library facilities to maintain acceptable service ratios, the construction of which could result in substantial adverse environmental effects.

b. Project Impacts and Mitigation Measures

Threshold 1a:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Impact PSR-1 **THE PROJECT COULD RESULT IN THE NEED FOR ADDITIONAL FIRE FACILITIES; HOWEVER, MITIGATION MEASURE PSR-1 WOULD REQUIRE MEASURES TO MAINTAIN ADEQUATE FIRE SERVICE. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.**

The project would be served with fire protection and emergency medical services provided by ACFPD. The project includes the extension of Newell Drive. This roadway extension would provide an additional roadway that ACFPD staff can use to access the project site, as well as other areas within the City. However, the introduction of new commercial, industrial, and town-center uses, as well as the Newell Drive extension could result in additional calls. Although the project would not include substantial residential population growth, it would add employees to the area. Thus, there is potential for an increase in calls to the fire department made by employees in the case of an emergency. Development facilitated by the project would increase calls for service throughout the city for issues including (but not limited to) emergency medical service, structure or vegetation fires,

and traffic collisions. Since the project site is within ACFPD's existing service area and within 3 miles of the nearest fire station, emergencies on these sites would generally be responded to within current response times.

The project would be required to meet the standard fire code safety and access requirements administered by the City of American Canyon Building Division and specified by the CBC. In accordance with standard practices, ACFPD would review project plans before permits are issued to ensure compliance with all applicable fire and building code standards and ensure adequate emergency access is provided to the site.

The project would be required to pay two separate special assessments to fund fire protection and emergency medical services. The first is the "Fire Mitigation Fee," a one-time assessment to all new development. The second is the "Fire Service Fee" and an annual assessment for each parcel based on a formula that includes structure construction type, the fire flow area (square feet), proximity of other structures, the type of occupancy, and the presence of fire protection devices.

Nonetheless, due to the size of the annexation area, there is the potential that future development could result in the need of additional infrastructure, such as a fire station, which could result in a physical impact on the environment (ACFPD personal communication 2023). Therefore, mitigation would be required to reduce potential impacts. To that end, Mitigation Measure PSR-1 would require the City to provide the ACFPD with future development applications so that the ACFPD can identify if any new infrastructure would be needed. Future fire infrastructure or facilities could be located within the City but would require adherence to all applicable building and zoning codes and additional CEQA review from the ACFPD to analyze project and location specific impacts. It is not possible to identify the specific nature, extent, and significance of physical impacts on the environment that could result from the construction and operation of future fire facilities without knowing the size and nature of the facility, or its location. For example, future fire facilities could feasibly be housed in an existing building, which would have less of a physical impact on the environment than the construction of a new facility.

Mitigation Measures

PSR-1 Fire Facilities Coordination

The City shall forward development applications within the project area to the American Canyon Fire Protection District (ACFPD). If the ACFPD determines that Fire Service Mitigation fee program(s) must be updated to fund Fire Service Facilities to serve the site, the City shall cooperate with the ACFPD to update Fire Service Mitigation fee(s) in accordance with its relationship to the ACFPD as a subsidiary special district of the City.

Significance After Mitigation

Because Mitigation Measure PSR-1 would require the City to provide the ACFPD with future development applications so that the ACFPD can identify if any new infrastructure would be needed and because any future fire facilities that could result in a physical impact on the environment would be subject to CEQA, which would be conducted by the ACFPD, impacts from the project related to fire facilities would be less than significant.

Threshold 1b:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Impact PSR-2 THE PROJECT WOULD BE ADEQUATELY SERVED BY EXISTING POLICE PROTECTION SERVICES. PAYMENT OF PUBLIC SAFETY TAXES AND DEVELOPMENT IMPACT FEES WOULD MINIMIZE POTENTIAL IMPACTS TO POLICE SERVICE FACILITIES AND PERFORMANCE AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project would be served with police protection provided by the American Canyon Police Department. The Police Department is staffed by the Napa County Sheriff's Office, which provides law enforcement services on a contract basis to the City of American Canyon. The project includes extension of Newell Drive. This roadway extension would provide an additional roadway that police staff can use to access the project site, as well as other areas within the City. However, extension of Newell Drive could result in additional calls due to vehicle accidents. In addition, the project would introduce new commercial, industrial, and town-center uses. Although the project would not include substantial residential population growth, it would add employees to the area. Thus, there is potential for an increase in calls to the Police Department made by employees during emergencies. Development facilitated by the project would increase the number of annual incidents. Since the project site is within Napa County Sheriff's existing service area and 1.3 miles from the ACPD police stations, emergencies on these sites would generally be responded within current response times.

The Police Department will have the opportunity to review and comment on security measures during the plan check review process for future development on the project site. For these reasons, the project would be expected to generate minimal calls for service and, therefore, would not create a need for new or expanded police facilities. Impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 1d:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?
Threshold 2:	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?
Threshold 3:	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?

Impact PSR-3 **THE PROJECT WOULD BE ADEQUATELY SERVED BY EXISTING PARK FACILITIES. THE PROJECT WOULD NOT INCLUDE RESIDENCE OR INDUCE GROWTH IN POPULATION THAT WOULD UTILIZE PARK FACILITIES. THUS, IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

The project would facilitate development of commercial, industrial, and visitor-serving/hotel use; however, no new residences would be developed due to the project. The project is located within a proposed segment of the Vine Trail, which is a Countywide Trail planned to ultimately connect the City of Calistoga to the Vallejo Ferry. Development contemplated by the project would not substantially increase demand for recreational facilities, as no additional housing or permanent residencies are a part of the project. Since the project would not include additional residences but would complete segments of the Vine Trail located on the frontage of future development, impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 1e:	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered public facilities, or the need for new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

Impact PSR-4 **THE PROJECT WOULD NOT RESULT IN SUBSTANTIAL ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE PROVISION OF NEW OR PHYSICALLY ALTERED PUBLIC FACILITIES. NO NEW FACILITIES WOULD BE REQUIRED TO ACCOMMODATE THE PROJECT AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

Development facilitated by the project would not be expected to substantially increase demand for library services, as no additional residencies are a part of the project. However, people visiting the area may choose to visit the library. The American Canyon Library is located at 300 Crawford Way, approximately 3 miles from the project site. Project generated employees may also choose to utilize the library, however at a lower rate than existing residents in American Canyon. Pursuant to the City's 2022 Civic Facilities Fees, the project would be required to pay $0.16 per square foot of commercial development and $0.09 per square foot of industrial development. These fees are collected and used to fund expanded library services in the City. While library services demand may increase slightly because of the project, the project would not require the expansion of library facilities. Thus, impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant.

4.14.4 Cumulative Impacts

The geographic scope of the cumulative public services analysis is the service area for the public service. Cumulative development projects would all place a demand on police, fire, and library services. The City and Fire District has adopted impact fees that help fund fire and library services. Cumulative increases in police services would be funded by increases in the City's General Fund, which is related to increased economic activity within the project area. As such, cumulative impacts on these public services would be less than significant. In addition, a cumulative impact on police, fire, and library services would only be significant if an expanded or new facility would be needed, such that it resulted in a physical impact on the environment. At this time, no plans have been identified for expanded police or library facilities. The ACFPD has identified that cumulative development may require the relocation of Fire Station 211; however, no specific plans have identified the relocation site. When plans for an expanded or new facility are identified for any public service, CEQA review would be conducted and the potential physical impacts on the environment would be assessed.

Furthermore, regarding fire services, it should be noted that ACFPD's service includes areas beyond the City limits. As such, there could be additional demand for fire services, beyond the cumulative projects identified in this EIR. This project would represent a portion of the cumulative demand on fire services. Because there are already impact fees that both the project and other cumulative projects would be subject to and because the project includes Mitigation Measure PSR-1, requiring the City to coordinate with the ACFPD, the projects contribution to a cumulative impact would not be considered cumulatively considerable.

The geographic scope of the cumulative recreation analysis is the City. Cumulative development projects, especially residential projects would increase residences in the City, which could place an additional demand on recreational facilities. The City has developed a Parks and Recreation fee, which requires the applicants for new residential projects to pay this fee, which will fund park acquisition, park development, community gym, and the aquatic center. Payment of the Parks and Recreation fee would help ensure sufficient recreational resources for any new growth associated with the project. It should be noted that the project is not anticipated to pay the Park Impact fee because the project would not include additional residential development. Furthermore, it is expected that cumulative residential projects would add open space as parts of their projects, to comply with zoning requirements. In addition, the closest and largest cumulative project (Watson Ranch Specific Plan) has identified that it would add approximately 23 acres of parklands to the City. Overall, cumulative recreational impacts would be less than significant.

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4.15 Transportation

This section describes relevant transportation conditions and analyzes the transportation impacts due to the project.

4.15.1 Setting

a. Streets and Highways

The City of American Canyon is located in southern Napa County, approximately 35 miles northeast of San Francisco. Adjacent and south of the City limits is the City of Vallejo in Solano County. North of the City limits, a succession of cities in Napa County are located along State Route (SR) 29, which serves the main commercial corridor through the center of American Canyon. SR 29 is a main route to wine country destinations. These cities include Napa, Yountville, St. Helena, and Calistoga. As with American Canyon, these cities are bisected by SR 29.

The transportation network serving the area includes a network of city and county-maintained streets and state highways. SR 29 runs through the City at grade and serves as a main thoroughfare for local and pass-through traffic. SR 29 provides access to local properties as well as regional connections. In addition, the City of American Canyon streets serve a variety of users, including pedestrians, bicyclists, transit riders, passenger cars, and heavy trucks for freight with a mix of local, recreational, and regional trips. American Canyon Boulevard is a major east-west arterial street that connects with the Interstate (I-) 80 freeway to the east. The City lies generally northwest of the I-80/ SR 37 interchange.

b. Existing Pedestrian and Bicycle Facilities

The Highway Design Manual, published by the California Department of Transportation (Caltrans), classifies bikeways into four categories:

- Class I Multiuse Path: a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- Class II Bike Lane: a striped and signed lane for one-way bike travel on a street or highway.
- Class III Bike Route: signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- Class IV Bikeway: also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

There are currently over 13 miles of bicycle network within the City of American Canyon, including over 8 miles of Class I multiuse paths, 2.8 miles of Class II bike lanes, and over 2 miles of Class III designated bicycle routes on public roadways. While most of the City has sidewalks, given the rural character of many older neighborhoods and the lack of a centralized downtown area, several areas of the City have limited or lacking pedestrian infrastructure. There is minimal sidewalk coverage along SR 29.

c. Transit Services

Public transportation within the City is provided by American Canyon Transit, which is a part of the Napa Valley Transportation Authority (NVTA) Vine Transit system. American Canyon Transit is a fixed route and on-demand, door-to-door, transit service within specific areas of the city. Vine's Route 29 (Napa-BART) Express connects the BART Station in El Cerrito to the Redwood Park n Ride in the City of Napa and stops in American Canyon at the Post Office on Crawford Way.

On-demand private taxi services are available in the project site 24 hours a day. Taxis can be used for trips within the project site and farther destinations, including nearby airports. Other ride-hailing applications are also available in the project site and provide transportation throughout the Bay Area.

d. Rail Transportation

Rail transportation in the City is currently limited to freight service only. No commuter rail service exists in the City or County. The main rail line in the City is owned by Union Pacific Railroad Company and enters the City parallel to and on the east side of SR 29 at the Solano County line. The project site is bisected by the Union Pacific Railroad Line.

e. Aviation

The Napa County Airport is northwest of the City limits in unincorporated lands. It is a General Aviation airport with charter flights available, but no scheduled commercial flights. The airport can accommodate most private aircraft including jets, up to 120,000 pounds. The airport was built by the United States Army Air Force in 1942 and was deeded to Napa County after World War II for civilian use. In 1971 International Air Services Company opened a flight training school at the airport.

4.15.2 Regulatory Setting

a. Federal Regulations

Americans with Disabilities Act of 1990

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the United States Access Board, an independent Federal agency created in 1973 to ensure accessibility for people with disabilities, has created accessibility guidelines for public rights-of-way. While these guidelines have not been formally adopted, they have been widely followed by jurisdictions and agencies nationwide in the last decade. The guidelines, last revised in July 2011, address various issues, including roadway design practices, slope and terrain issues, pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. The guidelines apply to all proposed roadways in the City.

Federal Highway Administration

The Federal Highway Administration (FHWA) is the agency of the U.S. Department of Transportation (DOT) responsible for the federally funded roadway system, including the interstate highway

network and portions of the primary state highway network. FHWA funding is provided through the Moving Ahead for Progress in the 21st Century Act (MAP-21). MAP-21 can be used to fund local transportation improvement projects, such as projects to improve the efficiency of existing roadways, traffic signal coordination, bikeways, and transit system upgrades.

b. State Regulations

California Department of Transportation

Caltrans is responsible for planning, designing, constructing, and maintaining all state highways. The jurisdictional interest of Caltrans includes state highways and facilities and extends to improvements to roadways at the interchange ramps serving area freeways. Any federally funded transportation improvements would be subject to review by Caltrans staff and the California Transportation Commission.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) is the State agency responsible for rail safety. The CPUC's jurisdiction includes railroad interlocking plants and public highway grade crossings. CPUC approval is required to modify a railroad interlocking plant (including construction of a new spur track) or modification to an existing public railroad grade crossing. Completion and submittal of a General Order 33-B is required for any proposed work to a railroad interlocking plant (e.g., spur track), and a General Order 88-B is required for any proposed work to a public highway grade crossing.

Complete Streets Act

The California Complete Streets Act (AB 1358) adopted in 2008, requires that cities and other public agencies incorporate "Complete Street" policies when updating their General Plan Circulation Element. The term "Complete Streets" refers to a balanced, multimodal transportation network that meets the needs of all users of streets, including bicyclists, children, persons with disabilities, motorists, movers of commercial goods, pedestrians, public transportation, and seniors. A "Complete Street" is one that provides safe and convenient travel in a manner that is suitable to the local context. Complete Streets make travel safe for all users, including bicyclists, pedestrians, motorists, transit vehicles, and people of all ages and abilities. Each street does not need to provide dedicated space to all users, but the network must accommodate the needs of all users.

Senate Bill 743

California Senate Bill (SB) 743, passed in 2013, addresses a range of topics and aims to better promote statewide policies that (a) combat climate change by reducing greenhouse gas emissions and particulates; (b) encourage infill development and a diversity of uses instead of sprawl; and (c) promote multi-modal transportation networks, providing clean, efficient access to destinations and improving public health through active transportation.

SB 743 changed the way transportation impact analyses are conducted as part of compliance with the California Environmental Quality Act (CEQA). These changes eliminated automobile delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts under CEQA. Prior rules treated automobile delay and congestion as an environmental impact. SB 743 required the *CEQA Guidelines* to prescribe an analysis that better accounts for transit and reducing greenhouse gas emissions. In December 2018, Office of Planning

and Research (OPR) released the final update to *CEQA Guidelines* consistent with SB 743 that went into effect statewide on July 1, 2020, which state that vehicle miles traveled (VMT) is "generally" the most appropriate metric of transportation impacts to align local environmental review under CEQA with California's long-term greenhouse gas emissions reduction goals. At the same time as the release of the updated *CEQA Guidelines,* OPR also released a non-binding *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which outlines potential VMT analysis methodologies and thresholds of significance for use by agencies in California based on substantial evidence developed by OPR related to achievement of the State's greenhouse gas emissions reductions targets.

Although OPR provides recommendations for adopting new impact analysis guidelines, lead agencies have the final say in designing their methodology, provided that the selected analysis methodology aligns with the SB 743 goals to promote infill development, reduce greenhouse gases, and reduce VMT. The City's approved methodology and thresholds for transportation impacts consistent with SB 743 are described in Section 4.15.3, *Impact Analysis*.

c. Regional Transportation Plans

Plan Bay Area 2050

The Regional Transportation Plan and Sustainable Community Strategy (RTP/SCS) for the San Francisco Bay Area, named Plan Bay Area 2050 was jointly produced and adopted by the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) on October 21, 2021. Plan Bay Area 2050 is the strategic update to Plan Bay Area 2040, and it connects the elements of housing, the economy, transportation, and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. It is a roadmap to help Bay Area cities and counties preserve the character of our diverse communities while adapting to the challenges of future population growth. The SR 29 corridor has been designated by MTC and ABAG as a Priority Development Area (PDA), meaning that it is recognized as an area with substantial opportunity for infill development near transit. PDAs play a critical role in accommodating future growth in the regional agencies' SCS plans.

Countywide Transportation Plan

The NVTA oversees the countywide transportation plan for Napa County. The countywide transportation plan outlines priorities for the NVTA and Napa County's transportation system to relieve congestion, improve traffic safety, create more active transportation infrastructure, provide more reliable and frequent bus service, and maintain and repair the existing transportation system. Local planning efforts led by NVTA have resulted in the development of preliminary concepts for SR 29 that have been presented to the public through workshops for input and comment. Some of these initial concepts were evaluated in more detail through the regional NVTA study and subsequent public workshops. Options already discussed with the community include creative intersection capacity enhancements, including roundabout options.

d. Local Regulations

American Canyon General Plan

The Circulation Element of the City of American Canyon General Plan sets forth a guiding vision and principles for the transportation system, and detailed goals and policies which aims to implement a

Complete Streets approach to mobility in the future. The build-out street network envisioned by the Circulation Element includes the extension of Newell Drive north from its current terminus concurrent with future development that would include the project site. As envisioned, Newell Drive would eventually connect American Canyon Boulevard in the south with SR 29 at Green Island Road, at the northwest corner of the project site. As identified in the City of American Canyon's existing Circulation Element, the future extension would be a 2-lane collector with one motor vehicle lane in each direction, bicycle lanes, and sidewalks (City of American Canyon 2018). In addition, the Circulation Element of the City of American Canyon General Plan includes the following relevant policies:

Guiding Policy 1.1: Community Priorities. Safe and convenient access to activities in the community is provided by a well-designed local roadway system. That system serves the community's primary need for mobility and includes a planned hierarchy of roadways to meet that need. The following Community Priorities relate most directly to this Element:

- Encourage and foster a strong sense of community and safety, as well as the "hometown" feeling by creation of a town center through land use and circulation planning.
- Improve a hierarchy of roadway networks to achieve and maintain acceptable traffic LOS and provide a citywide system of bicycle lanes and recreational trails that improve accessibility without the use of an automobile.
- Improve SR-29 so that it serves as a visually attractive gateway into the City while providing access to commercial businesses and serving intra and interregional traffic and goods movement.

Guiding Policy 1.2: Implement planned roadway improvements. Use Figure 3: General Plan Circulation System, and Table 3: Major Circulation Improvements [of the Circulation Element], to identify, schedule, and implement roadway and complementary intersection improvements to support General Plan buildout conditions. Planned improvements may be phased as development occurs and need for increased capacity is identified.

Guiding Policy 1.3: Design circulation system to focus regional travel on SR-29. SR-29 is important for both Citywide and north–south regional travel. As both City and regional travel grow, design the City circulation system to discourage regional traffic from bypassing SR-29 and impacting City streets. Also, cooperatively work with regional partners, including Caltrans, NCTPA and others explore a complete streets approach that will expand the travel capacity of SR-29.

Guiding Policy 1.6: Achieve and maintain a Multimodal LOS D or better for roadways and intersections during peak-hours where possible and as long as possible. However, recognizing that LOS D may not be achievable or cannot be maintained upon full buildout of the General Plan, due to traffic generated from sources beyond the control of the City, the City Council shall have the discretion to only require feasible mitigation measures that may not achieve LOS D, but will reduce the impact of any development use or density planned for in the Land Use Element of the General Plan.

The following locations that may not achieve or maintain LOS D are as follows and therefore will be exempt from the LOS D policy:

- State Route 29 through the City
- American Canyon Road from SR-29 to Flosden Road–Newell Drive
- Flosden Road south of American Canyon Road

Guiding Policy 1.9: Use of existing facilities. Make efficient use of existing transportation facilities, and improve these facilities as necessary in accordance with the Circulation Map [in the Circulation Element].

Guiding Policy 1.11: Reduce Vehicle Miles Traveled. Through layout of land uses, improved alternate modes, and provision of more direct routes, strive to reduce the total vehicle miles traveled by City residents.

Guiding Policy 1.12: Circulation System Enhancements. Achieve, maintain and/or improve mobility in the City by considering circulation system enhancements beyond improvements identified on the Circulation Map, where feasible and appropriate. Improve the circulation system, in accordance with the Circulation Map, at minimum, to support multimodal travel of all users and goods and where feasible, apply creative circulation system enhancements that increase system capacity and that are acceptable to the City and its residents and where applicable, Caltrans.

> **Implementing Policy 1.14:** Work with Caltrans on highway improvements. Continue to work with the Caltrans to achieve timely context sensitive design solutions, funding, and construction of programmed highway improvements.
>
> **Implementing Policy 1.17:** Regional fair-share fee program. Work with Caltrans, NCTPA, Napa County, and other jurisdictions to establish a fair-share fee program for improvements to routes of regional significance and State highways. This fee should reflect traffic generated by individual municipalities/unincorporated communities as well as pass-through traffic.
>
> **Implementing Policy 1.24:** Impacts of new development. Based upon the findings of a transportation impact analysis, consistent with Guiding Policy 1.26, new development will be responsible for mitigation of transportation-related impacts.
>
> **Implementing Policy 1.35:** General transit and pedestrian access. In reviewing designs of proposed developments, ensure that provision is made for access to current and future public transit services. In particular, pedestrian access to arterial and collector streets from subdivisions should not be impeded by continuous segments of sound walls.

Guiding Policy 2.1: Promote walking and bicycling. Promote walking and bike riding for transportation, recreation, and improvement of public and environmental health.

Guiding Policy 2.3: Develop a safe and efficient non-motorized circulation system. Provide safe and direct pedestrian routes and bikeways between places.

> **Implementing Policy 2.7:** Universal design. Provide pedestrian facilities that are accessible to persons with disabilities and ensure that roadway improvement projects address accessibility by using universal design concepts.
>
> **Implementing Policy 2.18:** Pedestrian connections to employment destinations. Encourage the development of a network of continuous walkways within new commercial, town center, public, and industrial uses to improve workers' ability to walk safely around, to, and from their workplaces. Where possible, route pedestrians to grade separated crossings over State Route 29.

Guiding Policy 3.1: Promote safe, efficient, and convenient public transportation. Promote the use of public transportation for daily trips, including to schools and workplaces, as well as other purposes.

Guiding Policy 4.1: Promote safe and efficient goods movement. Promote the safe and efficient movement of goods via truck and rail with minimum disruptions to residential areas.

Guiding Policy 4.2: Promote railroad safety. Minimize the safety problems associated with the railroad, including the construction and maintenance of at-grade crossings and the physical barrier effect of the track alignment on the City.

Guiding Policy 4.4: New truck route designation. All highways, arterials, and industrial streets shall be designated truck routes.

Guiding Policy 4.6: Location of industrial development. Continue industrial expansion in the north industrial area to minimize the neighborhood impacts of truck movements.

Guiding Policy 4.7: Secure truck parking. Encourage high-security off-street parking for tractor trailer rigs in industrial designated areas.

American Canyon Bicycle Plan

The City of American Canyon updated the Bicycle Plan in February 2020. The Bicycle Plan was prepared in accordance with the California Bicycle Transportation Act as part of the Napa Countywide Bicycle Plan and was coordinated with existing City and Regional Plans at the time of its adoption. The Bicycle Plan adoption was one of several City actions implementing SB 375, the Sustainable Communities Strategy Act. Relevant to the project site: the American Canyon Bicycle Plan envisions the provison of biycle lanes on the Newell Drive extension, as well as multi-use paths along the Union Pass Railroad (UPRR) tracks that pass through the annexation area (City of American Canyon 2020).

American Canyon Pedestrian Plan

The City of American Canyon adopted the Pedestrian Plan in June 2017. The Plan was developed to complement the American Canyon portion of the Countywide Bicycle Master Plan that the City adopted as an appendix into the General Plan Circulation Element in 2012. Together with the Bicycle Plan, the Pedestrian Plan creates an Active Transportation Plan that will position American Canyon to effectively compete for project funding. This plan follows the Caltrans Active Transportation Program (ATP) Guidelines, which outline statewide requirements for what should be included in active transportation plans (City of American Canyon 2017).

4.15.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on transportation if it would:

1. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle 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 use (e.g., farm equipment); or
4. Result in inadequate emergency access

Methodology

The methodology for assessing impacts under thresholds 1, 3 and 4 is qualitative in nature and considers the existing regulations in place that would minimize potential impacts related to transit, roadway, bicycle and pedestrian facilities; geometric design features; and emergency access.

Impact TRA-2 evaluates whether the project would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), which describes specific considerations for analyzing transportation impacts as amended on July 1, 2020 pursuant to SB 375. CEQA Guidelines Section 15064.3(b) states that VMT is "generally" the most appropriate measure of transportation impacts. No particular methodology or metric is mandated by Section 15064.3(b) and the methodology or metric is left to the lead agency, bearing in mind the criteria the legislature had in mind for determining the significance of transportation impacts in SB-743. These were expressed in Public Resource Code section 21099(b)(1), which states: "[t]hose criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses."

The assessment of VMT impacts for this study under Impact TRA-2 was determined by utilizing the American Canyon travel demand model to forecast the rate of VMT per employee for the project land uses at buildout under the following two scenarios:

- Scenario A: Existing plus project Conditions. Under this scenario: the Newell Drive extension would extend from SR 29 to provide access to the project site, but would not yet connect with the existing segments of Newell Drive to the south that intersects with American Canyon Boulevard.
- Scenario B: Cumulative Conditions (with the project) based on Year 2045 citywide residential and commercial growth as well as projected regional land use growth. Under this scenario: the Newell Drive extension would extend from SR 29 to American Canyon Boulevard, including existing segments of Newell Drive to the south of the project site.

The American Canyon travel demand model is a trip-based model. Therefore, VMT per employee was estimated based on the VMT associated with home-based work (HBW) trips. VMT impacts would be considered potentially significant under either scenario if the forecasted rate of VMT per employee for the project were to exceed 85 percent of the existing rate of VMT per employee for jobs in American Canyon, based on the American Canyon travel demand model. Table 4.15-1 summarizes the existing rate of VMT per employee and corresponding significance threshold. There are an estimated 4,442 jobs in American Canyon under existing conditions (based on U.S. Census Bureau estimates for the years 2017 and 2018, which were adjusted to reflect land use changes since 2018). The existing rate of VMT per employee is estimated to be 34.1 miles per employee. VMT impacts would therefore be considered significant if the rate of VMT per employee for the project were to exceed 29.0 miles.

Table 4.15-1 VMT Impact Threshold

Scenario	Number of Jobs	VMT per Employee
Existing Conditions (Jobs In American Canyon)	4,442	34.1
Significant Impact Threshold (85 percent of Existing rate)		**29.0**

Source: American Canyon Travel Demand Model, GHD, December 2022

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Impact TRA-1 THE PROJECT WOULD NOT CONFLICT WITH A PROGRAM, PLAN, ORDINANCE OR POLICY ADDRESSING THE CIRCULATION SYSTEM AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As described in Chapter 2, *Project Description*, along the northern boundary of the annexation area, the City would extend Newell Drive. The proposed roadway would connect SR 29 with the existing Newell Drive, approximately 1 mile southeast of the annexation area. The purpose of the Newell Drive extension would add a parallel roadway to SR 29 to relieve traffic congestion. The Newell Drive extension would extend east from SR 29 and Paoli Loop Road along the northern boundary of the annexation area and gently curve southeast towards Watson Lane as it approaches the UPRR. The Newell Drive extension would cross the UPRR tracks via an overcrossing.

The project would therefore be consistent with the build-out street network envisioned by the American Canyon General Plan Circulation Element, and the bikeway network envisioned by the American Canyon Bicycle Plan, that includes the extension of Newell Drive north from its current terminus concurrent with future development, including the project site. As envisioned, Newell Drive would eventually connect American Canyon Boulevard in the south with SR 29 at Green Island Road, at the northwest corner of the project site. The future extension would be a 2-lane collector with one motor vehicle lane in each direction, bicycle lanes and sidewalks. The project would not preclude the future provision of bicycle paths along the UPRR tracks, consistent with the American Canyon Bicycle Plan.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2:	Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Impact TRA-2 THE RATE OF VMT PER JOB THAT WOULD BE GENERATED BY THE PROJECT IS ANTICIPATED TO BE LOWER THAN THE SIGNIFICANCE THRESHOLD. THE PROJECT WOULD NOT CONFLICT WITH OR BE INCONSISTENT WITH CEQA GUIDELINES 15064.3(B) AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

As described in the Methodology subsection of Section 4.15.3, *Impact Analysis,* transportation impacts due to VMT attributable to the project were analyzed using the City of American Canyon travel demand model. VMT impacts would be considered potentially significant if the forecasted rate of VMT per employee for the project exceed 29.0 miles. The project would allow land uses that would provide an estimated 1,650 jobs at buildout. Table 4.15-2 summarizes the forecasted rate of VMT per employee that would be generated by the project under both Existing plus Project and Cumulative plus Project conditions. The following results were identified from the modeling.

- Under Existing plus Project conditions: the project would generate 25.2 VMT per employee, below the threshold of 29.0. Therefore, transportation impacts associated with VMT generated by the project would be less than significant under Existing plus Project conditions.
- Under Cumulative plus Project conditions: the project is forecasted to generate 13.8 VMT per employee, below the threshold of 29.0. Therefore, transportation impacts associated with VMT generated by the project would be less than significant under Cumulative plus Project conditions.

Overall, the project would add new employment opportunities to an area that has fewer jobs than housing. As such, when jobs are added by the project, future employees would be able to reduce their trip distance and overall VMT by being employed closer to their residence.

Table 4.15-2 Project VMT

Scenario	Project VMT per Employee	Impact Threshold	Impact Finding
Existing plus Project conditions	25.2	29.0	Less than Significant
Cumulative plus Project conditions	13.8	29.0	Less than Significant

Source: American Canyon Travel Demand Model, GHD, December 2022

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 3: Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?

Impact TRA-3 THE PROJECT WOULD NOT SUBSTANTIALLY INCREASE HAZARDS DUE TO A GEOMETRIC DESIGN FEATURE AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project is a proposed annexation that does not directly address geometric design features. Future development would be required to comply with street design standards, Manual of Uniform Traffic Control Devices (MUTCD) requirements, fire code requirements and zoning regulations, ensuring that the project would not result in design hazards. In addition, the project would include an overcrossing over the Union Pacific Railroad. By separating Newell Drive from the railroad, the project would avoid any potential conflicts between people using the Newell Drive Extension (i.e., people driving vehicles, pedestrians, and bicyclists) and trains. The project would not increase hazards due to a geometric design feature and impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 4: Would the project result in inadequate emergency access?

Impact TRA-4 THE PROJECT WOULD NOT RESULT IN INADEQUATE EMERGENCY ACCESS AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The project is a proposed annexation that does not directly propose uses that would result in inadequate emergency access. Primary emergency access would be provided by the extension of Newell Drive along the northern boundary of the annexation area, including a grade-separated crossing of the UPRR tracks, that would connect with SR 29 to the northwest and American Canyon Boulevard to the south. The provision of the Newell Drive extension and grade-separated railroad are anticipated to provide adequate emergency access. As such, impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.15.4 Cumulative Impacts

Cumulative impacts were considered as part of the analysis of Impacts TRA-1, TRA-2, TRA-3 and TRA-4 as described above. As such, the impacts identified above would also represent cumulative impacts.

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4.16 Tribal Cultural Resources

This section analyzes the potential effects on tribal cultural resources related to implementation of the project.

4.16.1 Setting

a. Ethnographic Overview

The project site is in the traditional tribal territory of the Patwin, members of the larger Wintun Tribe. Patwin territory extends from Clear Lake to the San Pablo and Suisun bays. The Patwin may be further separated into River Patwin along Sacramento River, as well as in the Sacramento and Suisun valleys towards the San Pablo and Suisun bays; and the Hill Patwin along the northern Coast Ranges, closer to Clear Lake Basin (Elliott 2011). Patwin language is a subgroup of the Penutian language family along with Wintun (Johnson 1978). Historically, the southern Patwin were distinguished from the northern Wintun, based on the linguistically distinct words for people: Win-tun or Win-tu in the north and Pat-win in the south (Kroeber 1925). For this discussion, Patwin refers to both Patwin and Wintun peoples.

Political organization consists of small tribelets and several satellite settlements. A male chief would head each tribelet and direct activities. Their main purpose was to govern ceremonial and economic activities of the village. His administration included tree grove and fishing ownership, how food would be distributed among the villagers, and what ceremonies would be held and who would be invited to join (McKern 1922, Johnson 1978). This position typically passed down patrilineally. Yet, the village could determine a chief to be incompetent and village elders would then elect a new Chief based on qualifications (McKern 1922).

The Patwin family unit had three levels. The first is the paternal family, which includes the extended family following male blood relations. The second is the family social group that dictated marital matrilocality, with the husband moving to the area of his wife. On the third level, the household of the nuclear family would situate in proximity of the family social group. Other types of family-like units would take part in specific activities. Paternal families participated in one of four practices that passed down secret medicines and charms. Trade families engaged in producing or consolidating resources, such as hunted animals or musical instruments for distribution. Shamanistic families utilized supernatural powers to influence the spirits. Official families held one individual that served in an official capacity, such as ceremonial song leader or hesi dance fire tender (McKern 1922). Additionally, a series of ceremonial dances took place from October to May related to the Kuksu Cult. These dances would take place in a small and secret ceremonial dance hall with an earth-covered roof (Kroeber 1925).

Patwin residential structures were typically elliptical or circular shaped and earth-covered or semi-subterranean. The earth covering was imported from outside the villages. Villages consisted of family homes, a ceremonial dance house, menstrual hut, and a sweat lodge.

Patwin subsistence practices centered on the use of acorns and other seeds as a primary food source. River Patwin would process these foods with wooden log mortars, while Hill Patwin preferred flat stone slab-and-basket hopper mortars (Elliott 2011). Both groups engaged in hunting of deer, tule elk, antelope, bear, turtles, and various species of waterfowl. Hunting was done typically with a sinew-backed bow and arrow. Fishing was a particularly important activity for the Patwin, using gates and pens to catch salmon and sturgeon, while pike, steelhead, trout, and smaller

salmon were caught with nets. Additionally, tobacco was collected from along the river and dried for smoking but not cultivated (Johnson 1978).

The Patwin made both twined and coiled basketry, usually from willow and redbud. Baskets were an important tool in their daily lives for transporting, preparing, and storing foods and burial remains. They utilized animal hides for bedding, floor mats, skirts, burial robes, and tobacco sacks. Tule balsa rafts were crafted and used to navigate rivers. Bone, mussel shell, and stone tools were used as knives (Johnson 1978).

4.16.2 Regulatory Setting

a. Federal Regulations

Archaeological Resources Protection Act

The Archaeological Resources Protection Act (ARPA) amended the Antiquities Act of 1906 (16 United States Code [USC] 431–433) and set a broad policy that archaeological resources are important to the nation and should be protected. ARPA requires special permits before the excavation or removal of archaeological resources from public or Indian lands. The purpose of the ARPA was to secure, for the present and future benefit of the American people, the protection of archaeological resources and sites that are on public lands and Indian lands, and to foster increased cooperation and exchange of information between governmental authorities, the professional archaeological community, and private individuals having collections of archaeological resources and data that were obtained before October 31, 1979.

American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) established federal policy to protect and preserve the inherent rights of freedom for Native groups to believe, express, and exercise their traditional religions. These rights include but are not limited to access to sites, use and possession of sacred objects, and freedom to worship through ceremonials and traditional rites.

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally-funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

b. State Regulations

Assembly Bill 52

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands the California Environmental Quality Act (CEQA) by defining a new resource category, “tribal cultural resources.” AB 52 establishes that “a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect

on the environment" (Public Resources Code [PRC] Section 21084.2). AB 52 further states when feasible, the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe," and meets either of the following criteria:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k).
b. 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 PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments and with respect to the interests and roles of project proponents, it is the intent AB 52 to accomplish all the following:

1. Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities.
2. Establish a new category of resources in CEQA called "Tribal Cultural Resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.
3. Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible.
4. Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated (because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources).
5. In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, early in the CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision-making body of the lead agency.
6. Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA.
7. Ensure that local and tribal governments, public agencies, and project proponents have information available, early in CEQA environmental review process, for purposes of identifying and addressing potential adverse impacts to tribal cultural resources and to reduce the potential for delay and conflicts in the environmental review process.

8. Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources.
9. Establish that a substantial adverse change to a tribal cultural resource has a significant effect on the environment.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified or adopted. AB 52 requires that lead agencies "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed in the jurisdiction of the lead agency.

Senate Bill 18

California Government Code Section 65352.3 (adopted pursuant to the requirements of Senate Bill [SB] 18) requires local governments to contact, refer plans to and consult with tribal organizations prior to making a decision to adopt or amend a general or specific plan. The tribal organizations eligible to consult have traditional lands in a local government's jurisdiction and are identified, upon request, by the Native American Heritage Commission (NAHC). As noted in the California Office of Planning and Research's Tribal Consultation Guidelines (2005), "The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places."

CEQA Guidelines Section 15064.5(c)—Effects on Archaeological Resources

The CEQA Guidelines state that a resource need not be listed on any register to be found historically significant. The CEQA Guidelines direct lead agencies to evaluate archaeological sites to determine whether they meet the criteria for listing in the California Register of Historical Resources (CRHR). If an archaeological site is a historical resource, in that it is listed or eligible for listing in the CRHR, potential adverse impacts to it must be considered. If an archaeological site is considered not to be a historical resource but meets the definition of a "unique archaeological resource" as defined in Public Resources Code Section 21083.2, then it would be treated in accordance with the provisions of that section.

CEQA Guidelines Section 15064.5(d)—Effects on Human Remains

Native American human remains and associated burial items may be significant to descendant communities and/or may be scientifically important for their informational value. They may be significant to descendant communities for patrimonial, cultural, lineage, and religious reasons. Human remains may also be important to the scientific community, such as prehistorians, epidemiologists, and physical anthropologists. The specific stake of some descendant groups in ancestral burials is a matter of law for some groups, such as Native Americans (CEQA Guidelines Section 15064.5(d); PRC Section 5097.98). CEQA and other State regulations regarding Native American human remains provide the following procedural requirements to assist in avoiding potential adverse effects on human remains within the contexts of their value to both descendant communities and the scientific community:

- When an initial study identifies the existence or probable likelihood that a project would affect Native American human remains, the lead agency is to contact and work with the appropriate Native American representatives identified through the NAHC to develop an agreement for the

treatment and disposal of the human remains and any associated burial items (CEQA Guidelines Section 15064.5(d); PRC Section 5097.98).

- If human remains are accidentally discovered, the County Coroner must be contacted. If the County Coroner determines that the human remains are Native American, the Coroner must contact the NAHC within 24 hours. The NAHC must identify the Most Likely Descendant (MLD) to provide for the opportunity to make recommendations for the treatment and disposal of the human remains and associated burial items.
- If the MLD fails to make recommendations within 24 hours of notification or the project applicant rejects the recommendations of the MLD, the Native American human remains and associated burial items must be reburied in a location not subject to future disturbance within the project site (PRC Section 5097.98).

4.16.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Appendix G of the *CEQA Guidelines* identifies the following criteria for determining whether a project's impacts would have a significant impact to tribal cultural resources:

1. 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:
   a. 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), or
   b. 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 Resource Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Methodology

The presence and significance of a potential tribal cultural resource is determined through consultation between lead agencies and local California Native Americans. Impacts to tribal cultural resources are highly dependent on the nature of the resource but, in general, could occur if there is destruction or alteration of the resource and its surroundings, access restrictions to the resource, or other disturbances.

b. Project Impacts and Mitigation Measures

Threshold 1a:	Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 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)?
Threshold 1b:	Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is 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?

Impact TCR-1 THE PROJECT COULD ADVERSELY IMPACT TRIBAL CULTURAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT THROUGH CONSULTATION CONDUCTED PURSUANT TO AB 52 AND IMPLEMENTATION OF MITIGATION.

As part of the AB 52 and SB18 process, the City of American Canyon sent letters via certified mail on June 10, 2022 to three Native American tribes that had previously requested to be informed through formal notification of projects in the geographic area that is traditionally and culturally affiliated with their Tribes. These Tribes consisted of the Cortina Band of Indians, the Federated Indians of Graton Rancheria, and the Yocha Dehe Wintun Nation. To date, no letters have been received by the City, nor have they received any responses requesting additional consultation under AB 52 or SB 18.

A Sacred Land File (SLF) by the NAHC was also requested on August 5, 2022. On October 11, 2022, the results of the SLF search were received and the NAHC stated that the results were positive. The results letter also stated that the City should contact the Mishewal-Wappo Tribe of Alexander Valley along with 12 additional Tribes who may also have knowledge of cultural resources in the area. On November 4, 2022, the City emailed and mailed out letters to all 13 Tribes provided by the NAHC. On November 18, 2022, a representative from the Yocha Dehe Wintun Nation provided a response to the City stating the project is within the aboriginal territories of the Yocha Dehe Wintun Nation. Therefore, the Tribe has a cultural interest and authority in the project area. The Tribe requested project information and any cultural resources studies. The Yocha Dehe Wintun Nation Tribe previously gave the City recommended mitigation measures through the consultation process for the City's Housing Element, as well as the General Plan Update. The City has incorporated the recommendations that were previously made for the Housing Element into this EIR. A consultation meeting was held on February 8, 2023 between City staff and representatives of the Yocha Dehe Wintun Nation. During the consultation meeting, City staff provided the representatives of the Yocha Dehe Wintun Nation an overview of the project, as well as the approach to include recommendations that were previously made for the Housing Element as mitigation in this EIR. The representative of the Yocha Dehe Wintun Nation requested that they be provided proper notification when development plans are identified and that they be provided a copy of the Draft EIR when it is available. City staff identified that the Yocha Dehe Wintun Nation would be notified of future development plans when those are identified and would be provided the Draft EIR when it is made available for public review.

It remains a possibility that tribal cultural resources may be present within geographic areas affiliated with tribal organizations. In compliance with AB 52, a determination of whether project-

specific substantial adverse effects on tribal cultural resources would occur, along with identification of appropriate project-specific avoidance, minimization, or mitigation measures.

The project would include industrial, commercial, roadway infrastructure over undeveloped portions of the project site. Due to the programmatic nature of the environmental analysis, it is not possible to fully determine impacts on tribal cultural resources. Implementation of proposed land uses would require grading across most of the project site. The Tribe provided recommended mitigation measures and protocols during consultation for the Housing Element and the General Plan, and these recommendations included construction monitoring of all ground disturbance. Implementation of Mitigation Measures CUL-2 though CUL-5, as described in Section 4.5, *Cultural Resources* would reduce potentially significant impacts on tribal cultural resources by requiring identification and evaluation of any archaeological resources that may be present prior to construction; by providing steps for the evaluation and protection of unanticipated finds encountered during construction; by ensuring appropriate protocols are followed if human remains are encountered; and by implementing tribal monitoring, as well as the Yocha Dehe Wintun Nation's Treatment Protocol.

Mitigation Measures

Mitigation Measures CUL-2 through CUL-5 (see Impacts CUL-2 and CUL-3 in Section 4.5, *Cultural Resources*).

Significance After Mitigation

Impacts would be less than significant with mitigation.

4.16.4 Cumulative Impacts

Cumulative development within the project site could potentially disturb areas that may contain cultural and tribal cultural resources. While there is the potential for significant cumulative impacts to cultural and tribal cultural resources, it is anticipated that potential impacts associated with individual development projects would be addressed on a case-by-case basis and would be subject to City policies and local and State regulations regarding the protection of such resources. With compliance with existing policies and regulations, future development in the city and region would be required to avoid or mitigate the loss of these resources. Furthermore, with implementation of Mitigation Measures CUL-2 through CUL-5, the project's contribution to any impacts on tribal cultural resources would be reduced to a less than significant level. Therefore, cumulative impacts would be less than significant.

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4.17 Utilities and Service Systems

This section analyzes the potential effects on utilities and service system related to implementation of the project.

4.17.1 Setting

a. Water Supply and Delivery

The City of American Canyon supplies water service to residential, commercial, and industrial users within the City and its sphere of influence (SOI). The City's potable water service area is approximately 30 square miles. The City water supply is provided from purchased or imported water sources, mainly State Water Project (SWP) water and the City of Vallejo, in addition to supplemental imported water sources. Table 4.17-1 identifies the City's current sources of water, which are discussed in detail after the table.

Table 4.17-1 Current Sources of Water Supply

Source		Contracted Volume/Capacity (Acre feet/Year)
State Water Project (Table A Allotment) [a]		5,200
Vallejo Permit Water [b]		500
Vallejo Treated Water	2011-2015	2,074
	2016-2021	2,640
	2021-Onward	3,206
Vallejo Emergency Water [c]		500
Groundwater [d]		0
American Canyon Recycled Water [e]		1,241
Napa Sanitation District-Produced Recycled		591

Notes:

[a] Includes allotment for American Canyon and additional supply from Kern County Water Agency

[b] Non-Table A Water

[c] Available only in dry years

[d] No groundwater is used for citywide supply

[e] As reported 2020 Urban Water Management Plan (UWMP). Maximum capacity of the City's recycled water treatment system by 2035.

Source: City of American Canyon 2022.

State Water Project

A significant portion of the City's water supply is obtained through various indirect contracts for water from the SWP. The Napa Flood Control and Water Conservation District is the State Water Contractor with the California Department of Water Resources (DWR), and the City receives its water through subcontracts with the Napa Flood Control and Water Conservation District.

Table A Allocation

In January 1967, the American Canyon County Water Agency[1] entered into an agreement with the Napa Flood Control and Water Conservation District for water supply from the North Bay Aqueduct. In 2010, the agreement allowed for the delivery of up to 5,200 acre-feet of water per year.[2] This contract runs through 2035 with provisions for extension. The actual amount of SWP water available to the City under the "Table A" allocation process (the method used by the DWR to allocate water in the SWP system) varies from year-to-year due to hydrologic conditions, water demands of other contractors, SWP facility capacity, and environmental/regulatory requirements. Deliveries have varied between 5 percent (in 2014) and 100 percent (last occurring in 2006) of the contracted amount.

City of Vallejo

In 1996, the City of American Canyon entered into an agreement with the City of Vallejo to allow the purchase of additional water supply. Vallejo receives its water from a variety of sources, including SWP water and an appropriative water right. Under the Vallejo Agreement, a specific source is identified for Permit Water supply but not for Treated or Emergency Water.

Vallejo Permit Water (Raw)

The City of Vallejo holds an appropriative right for Sacramento Bay-Delta water from the California State Water Resources Control Board (State Water Board) that pre-dates the construction of the SWP. The City of American Canyon has an agreement with the City of Vallejo for delivery of up to 500 acre-feet of water under this permit. This source of water is more reliable than the City's Table A supply, but the Vallejo Agreement still allows for reductions. Addendum 2 to the 1996 Vallejo Agreement states that "[i]n the event the State Water Resources Control Board, or any other agency, restricts Vallejo's diversion of water [under the appropriative pre-SWP contract] for any reason whatsoever, American Canyon's diversions will be reduced in the same proportion." As such, curtailment is typically less than that of the City's Table A supply under environmental or other constraints, but the City may not receive its full allotment during dry years.[3]

Vallejo Treated Water (Potable)

In 1996, the City of American Canyon entered into an agreement with the City of Vallejo to purchase up to 629 acre-feet of potable treated water supply. This agreement included the option for additional (cumulative) purchases in 5-year increments through 2021. Ultimately, this results in a total of 3,206 acre-feet of treated water available for purchase each year by the City from Vallejo for 2021-2040.

A specific source for Treated Water is not identified in the Vallejo Agreement; thus, the ultimate source of this water is a blend of all of Vallejo's water sources. Under certain conditions, the maximum delivery of this supply may be "reduced in the same proportions as any reduction to Vallejo customers inside the Vallejo city limits."[4]

[1] A predecessor agency to the City of American Canyon, which was not incorporated until 1992.
[2] A total of 500 acre-feet of this water was obtained through a purchase of water, by the Napa Sanitation District, from Kern County Water Agency in 2000.
[3] For example, Vallejo Permit Water delivery was curtailed in both 2014 and 2015.
[4] Vallejo Water Service Agreement. May 1, 1996 (Page 7-7 in the 2015 American Canyon UWMP).

Vallejo Emergency Water (Raw)

When the City's Table A water allotment is curtailed, the City of American Canyon has the option to purchase up to 500 acre-feet of emergency raw water supply from Vallejo under an agreement amended in 1996. The 2020 Urban Water Management Program (UWMP) assumes that this water would be available under dry year and multiple dry year scenarios but not during a normal year. During consecutive dry years 3 to 5, the 2020 UWMP assumes a reduction to 400 AF.

Groundwater

The City of American Canyon does not currently rely on groundwater as a source of water, though the 2020 UWMP states that the City remains open to the possibility and will consider potential supply opportunities as they present themselves.

Other Sources of Potable Supply

Dry Year Water Bank

In 2009, the City of American Canyon (along with other SWP contractors) entered into an agreement with DWR to obtain emergency supplies if rice farmers in the Sacramento Valley are willing to make their supplies available. The year-to-year availability of this supply is not known.

Turn-Back Water Pool Program

DWR has a program for interested SWP contractors called the Turn-back Water Pool Program. SWP contractors may choose to sell Table A water or purchase turn-back pool water that is available through the program. The amount of pool water available to the City of American Canyon is not a significant amount. For example, during 2010 the City purchased 17 acre-feet, and in 2012 it purchased 64 acre-feet. The City of American Canyon has not purchased water through this program since 2016.

Napa Treated Water

The City has an agreement with the City of Napa for the purchase of treated (potable) water under emergency conditions, or when the North Bay Aqueduct system is off-line for maintenance or other reasons. Napa treated water provides operational flexibility (such as providing water to customers even when the City's water treatment plant is off-line for an extended period of time). During 2010, the City purchased 306 acre feet of treated water when the plant was off-line for maintenance-related issues. Under this informal arrangement, the Napa treated water purchase counts against the City's SWP Table A allotment. The City of American Canyon has not purchased water through this program since 2014.

Dry Year Transfer Program

During dry years, varying amounts of additional water may be made available to SWP contractors through DWR's Dry Year Transfer Program, which allows for transfers through a combination of crop idling, groundwater substitution, and changes in reservoir operation. For example, in 2015 the City of American Canyon purchased 92 acre-feet of additional supply (for that year) through this program. While this option is available to the City on a per year authorization, the long-term reliability of this supply is not known. The City of American Canyon has not purchased water through this program since 2015.

Yuba Accord

In 2008, the DWR adopted the Lower Yuba River Accord, an agreement to settle issues related to instream flows in the Yuba River and fisheries habitat. As part of that agreement, the DWR is able to purchase water from the Yuba River Water Agency to, in part, offer to participating SWP contractors as a transfer during dry years. The Napa County Flood Control and Water Conservation District has authorized the execution of Yuba Accord Dry-year Water Purchase Agreement, and the City of American Canyon has the option to purchase water through this agreement in dry years, though at a cost that is considerably higher than under normal conditions. In 2015, the City authorized the purchase of 124 acre-feet through this program to cover projected water supply shortfalls during the drought. The City of American Canyon has not purchased water through this program since 2015.

Recycled Water

American Canyon Recycled Water

The City of American Canyon completed the first phase of its Recycled Water Distribution System Project in 2010, which included a one-million-gallon reservoir, distribution piping, and associated improvements at the City's water treatment plant. Initially, 13 users were connected to the system and 73 acre-feet of water was delivered in 2010. The Recycled Water Master Plan projected over 1,200 acre-feet of water demand at buildout in 2035 for landscaping and agricultural irrigation (City of American Canyon 2016a). However, utilization of this supply is dependent on connection of additional users and completion of additional distribution pipe segments. Currently, the City produces recycled water to meet demand on an as needed basis. The City is currently taking steps to increase capacity of their system to meet this demand in the future. The 2020 UWMP identifies 1,241 acre-feet per year (AFY) as the full system capacity by 2035.

Napa Sanitation District Recycled Water

In addition to the City's recycled water supply, Napa Sanitation District (NapaSan) has an existing recycled water supply pipe that extends to northern portions of the Airport Industrial Area (north of Fagan Creek). In 2015, NapaSan provided 210 acre-feet of recycled water to the City's users. The 2015 UWMP projected that NapaSan will provide up to 391 acre-feet of recycled water in 2020, up to 491 acre-feet in 2025, and 591 acre-feet in 2030 and onwards (City of American Canyon 2015).

Water Treatment Plant

The City owns, maintains, and operates the Water Treatment Plant (WTP), which has a maximum capacity of 5.5 million gallons per day (mgd) with an average daily demand of approximately 3 mgd. Treated water is delivered by gravity to the 2.5-million-gallon (MG) water storage tank located at the WTP and flows from the tank to the distribution system. The potable water distribution system consists of approximately 102 miles of water mains, 3 storage tanks, and 2 booster pump stations.

The total demand (potable and non-potable) in 2020 was approximately 2,613 acre-feet (AF) (City of American Canyon 2022). Residential demands account for 1,454 AF (56 percent) of the total demand; while commercial, industrial, and institutional demands account for 763 AF (29 percent); and landscape irrigation demands account for 139 AF (5 percent) (City of American Canyon 2022). Raw water for agricultural irrigation was 63 AF (2 percent). The remaining balance is attributed to other uses (fire hydrants, construction) at 73 AF (3 percent) and water loss of 121 AF (5 percent) (American Canyon 2022). The per capita water demand was 116 gallons per capita per day in 2020.

Although the City was able to meet the 2020 target of 162 gallons per capita per day, the year 2020 did not represent a typical year due to the impacts of the COVID-19 pandemic.

b. Wastewater

Introduction

The City and NapaSan provide municipal wastewater and recycled water services within the City's water service area. The City's wastewater collection system consists of gravity pipelines, two force mains (the Main and Industrial Basins from the southern and northern ends of the City, respectively) and a series of pump stations. The wastewater is conveyed to the City's Water Reclamation Facility (WRF) for treatment. Wastewater collected in the NapaSan systems is conveyed to NapaSan's Soscol Water Recycling Facility, which produce treated wastewater and recycled water. The City's recycled water distribution system includes approximately 13 miles of pipeline, a pump station, and two storage tanks with capacities of 1 million gallons and 1.5 million gallons.

Water Reclamation Facility

The City owns, maintains, and operates the WRF. The WRF treats both domestic and industrial wastewater flows and is a secondary/tertiary treatment plant. It began operations in 2002 and employs a Membrane Bio Reactor and ultraviolet light disinfection. Treated wastewater discharges are regulated under National Pollutant Discharge Elimination System (NPDES) Waste Discharge Requirements Order No. R2-2022-2019. The WRF has a total wastewater treatment capacity of 2.5 mgd at average dry weather flow conditions and 5.0 mgd at peak wet weather flow conditions. In 2020, the City treated 1,625 AF of wastewater, which is equivalent to 1.45 mgd (City of American Canyon 2022).[5] In 2020, there was 1.05 mgd of remaining capacity for wastewater treatment.

Approximately 17 percent of total influent inflow received at the WRF becomes recycled water. In 2019, 282 acre-feet of recycled water were delivered to various users for non-potable use. The remaining effluent is treated and discharged to the Napa River.

Collection System

The City's wastewater collection system consists of gravity pipelines (53 miles), force mains (5 miles), and five pump stations that convey wastewater to the City's Water Reclamation Facility located near the Napa River. The City's system operates its collection system to segregate domestic water from high strength industrial wastewater flows. The Kimberly Pump Station and the Sunset Meadows Pump Station collect wastewater from residential areas and deliver 75 percent of the flow to the wastewater treatment plant. The Tower Road and Green Island Sewer Pump Stations transport wastewater from industrial areas in the northern part of the City. These two stations discharge a combination of domestic and industrial wastewater to a common force main and deliver the remaining 25 percent of the flow to the Water Reclamation Facility.

The project site is located within the Green Island Pump Station sewershed. The pump station's sewershed is 2.3 square miles. The City decommissioned the old pump station that had a capacity of 600 gallons per minute (gpm) and replaced it with a new pump station sized for 1,335 gpm (City of American Canyon 2016b).

[5] 1.45 mgd = [1,625 AF * (325,851 gallons pe 1 acre foot) / 1,000,000 gallons] / 365 days per year

Sewer Facilities

The closest sewer facilities to the project site are gravity mains located off Paoli Loop Road. To the west of the project, an existing 18-inch diameter force main that connects the Tower Road Pump Station with the Green Island Pump Station has been replaced with a new 12-inch diameter force main (with the exception of the existing 18-inch diameter forced main from Tower Road to within the Airport).

c. Storm Drainage

An overview of the natural drainage systems and man-made drainage systems are provided in Section 4.10, *Hydrology and Water Quality* (see subsection 4.10.1). Major storm drainage infrastructure within the City is owned and operated by the City of American Canyon and maintained by the City's Department of Public Works. Storm drainage infrastructure includes drainpipes, concrete channels, culverts, and swales, which convey storm drainage to Rio Del Mar Creek, American Canyon Creek or North Slough before joining Napa River in the west, and then to San Francisco Bay.

The City maintains a Storm Drainage Master Plan and engineering standards that guide the development of the municipal storm drainage system (City of American Canyon 1996). The City requires stormwater discharges to comply with San Francisco Bay Regional Water Quality Control Board (San Francisco Bay RWQCB) permit requirements and establishes non-point source pollution control measures as required by federal and State law. Stormwater pollution prevention measures for new development projects, such as bioswales, detention ponds, erosion, and sedimentation control, are incorporated in the planning, design, construction, and operation of projects with the potential to create pollutants in stormwater runoff.

d. Solid Waste and Recycling

Residential and commercial trash and recycling services in the City of American Canyon are provided by American Canyon Recology through a franchise waste hauling agreement with the City of American Canyon. Recology transports solid waste from American Canyon to the Devlin Road Recycling & Transfer Facility (DRRTF) where it is loaded into trucks and sent to Potrero Hills Landfill (PHLF) in Suisun (Solano County).

The DRRTF is a 35-acre regional transfer station operated by the Napa-Vallejo Waste Management Authority (NVWMA), a joint powers agency. NVWMA members include the cities of Napa, American Canyon, and Vallejo (in Solano County), and County of Napa. The DRRTF is permitted by the Napa County Local Enforcement Agency as Large Volume Transfer Processing Facility. DRRTF receives solid waste primarily from NVWMA member jurisdictions and a much smaller portion of the waste stream is received from twenty to thirty non-member jurisdictions in the surrounding area. The DRRTF is permitted to receive 1,440 tons of solid waste per day (County of Napa 2008).

According to the Solid Waste Facility Permit for the PHLF, the peak tonnage of incoming waste is not to exceed 4,330 tons per day. The maximum permitted capacity of the landfill is 83.1 million cubic yards or 87.1 million tons. According to the California Department of Resources Recycling and Recovery (CalRecycle), the remaining capacity of the landfill is 13.9 million tons (CalRecycle 2022a).

PHLF is designated as a Class III landfill. This means that the landfill can accept only nonhazardous waste for disposal. The San Francisco Bay Regional Water Quality Control Board (RWQCB) may also, at its discretion, allow Class III landfills to accept certain types of "designated wastes." Designated waste is defined (in the California Water Code, Section 13173) as either: (1) non-hazardous waste

that consists of or contains pollutants that, under ambient environmental conditions at a waste management unit could be released in concentrations exceeding applicable water quality objectives, or that could reasonably be expected to affect beneficial uses of the waters of the state as contained in the appropriate state water quality control plan; or (2) hazardous waste that has been granted a variance from hazardous waste management requirements pursuant to Section 25143 of the Health and Safety Code.

e. Natural Gas/Electricity

The electrical and natural gas service in the City of American Canyon is provided by Pacific Gas and Electric (PG&E). The company provides natural gas and electric service to approximately 16 million people throughout a 70,000-square-mile service area in northern and central California. PG&E maintains and services all transmission and distribution lines within the region. These transmission lines traverse the City, both underground and above ground. Of note are the high-power electrical transmission lines which run northeast by southwest through the City. (California Energy Commission 2022). These lines are located approximately 1.75 miles from the project site. In addition, there are existing distribution lines on Watson Lane and Paoli Loop Road. A natural gas transmission pipeline runs north to south through the eastern part of the City (PG&E 2022). A portion of this natural gas transmission line is located adjacent to the project site, adjacent to the area that would be pre-zoned as Town Center.

f. Telecommunications

Telecommunication utilities, including phone, internet, and television, are mainly a privately owned enterprise and are offered by a variety of companies in American Canyon and the surrounding area. The number of providers offering the service, the type of service available, and the transmission speed of the service all affect the quality of telecommunications. This approach differs from that of most other utilities, which are generally publicly owned or offered by limited or individual service providers in a given area. Telecommunications providers will usually complete infrastructure and other service improvements for an area as the need arises to meet customer demand. Telecommunication services at the project site are offered by a variety of servicers, including AT&T, Comcast, and T-Mobile in the northern portion of the project site (Federal Communications Commission 2022).

4.17.2 Regulatory Setting

a. Protection of Underground Infrastructure

California Government Code Section 4216

California Government Code Section 4216 et seq. requires that persons planning to conduct any excavation first contact the regional notification center. Section 4216 includes several related requirements, including requirements for excavations near "high priority utilities,"[6] which include high-pressure natural gas pipelines and other pipelines that are potentially hazardous to workers or the public if damaged or ruptured. Underground Service Alert North (USA North) is the regional notification center for the areas where the project would be located. USA North receives planned

[6] Consistent with California Government Code Section 4216(e), high priority utilities include natural gas pipelines carrying petroleum with normal operating pressures greater than 415kPA (60 pounds per square inch gauge); petroleum pipelines; pressurized sewage pipelines; high voltage electric supply lines, conductors, or cables that have a potential to ground of greater than 60 kilovolt; and hazardous materials pipelines that are potentially hazardous to workers or the public if damaged.

excavation reports and transmits the information to all participating members that may have underground facilities at the location of excavation. The USA North members then mark or stake their facility, provide information about the location, or advise the excavator of clearance.

b. Water Supply and Quality

Federal

National Pollutant Discharge Elimination System

Pursuant to Section 402 of the Clean Water Act and the Porter-Cologne Water Quality Control Act, municipal stormwater discharges in American Canyon are regulated under the San Francisco Bay Region Municipal Regional Stormwater National Pollutant Discharge Elimination System (NPDES) Permit, MS4 Order No. 2013-001 (General Permit). In 1987, Congress amended the Clean Water Act to mandate controls on discharges from Municipal Separate Storm Sewer Systems (MS4s). Acting under the federal mandate and the California Water Code, RWQCBs require cities, towns, and counties to regulate activities that can result in pollutants entering their storm drains. All municipalities prohibit non-stormwater discharges to storm drains and require residents and businesses to use Best Management Practices (BMPs) to minimize the amount of pollutants in runoff. The Municipal Regional Permit is overseen by the San Francisco Bay RWQCB. On February 5, 2013, the State Water Board reissued the Phase II Stormwater NPDES Permit for small MS4s. Provision E.12, "Post-Construction Stormwater Management Program," mandates municipalities to require specified features and facilities–to control pollutant sources, to control runoff volumes, rates, and durations, and to treat runoff before discharge from the site–be included in development plans of projects that create or replace 5,000 square feet or more impervious surface as conditions of issuing approvals and permits. The new requirements continue a progression of increasingly stringent requirements since 1989.

Provision E.12 requires all municipal permittees to implement these requirements by June 30, 2015, to the extent allowed by applicable law. This includes projects requiring discretionary approvals that have not been deemed complete for processing and discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals. In July of 2014, the Bay Area Stormwater Management Agencies Association (BASMAA), through the BASMAA Phase II Committee, created the BASMAA Manual to assist applicants for development approvals to prepare submittals that demonstrate their project complies with the NPDES permit requirements. Applicants who seek development approvals for applicable projects should follow the manual when preparing their submittals. The manual is designed to ensure compliance with the requirements and promote integrated Low Impact Development (LID) design.

Section E.12.c of the NPDES Permit pertains to LID and how it relates to hydromodification management. This permit provision requires that stormwater discharges not cause an increase in the erosion potential of the receiving stream over the existing condition. Increases in runoff flow and volume must be managed so that the post-project runoff does not exceed estimated pre-project rates and durations, where such increased flow and/or volume is likely to cause increased potential for erosion of creek beds and banks, silt pollutant generation, or other adverse impacts on beneficial uses due to increased erosive force.

State

Sustainable Groundwater Management Act

In September 2014, the governor signed legislation requiring that California's critical groundwater resources be sustainably managed by local agencies. The Sustainable Groundwater Management Act gives local agencies the power to sustainably manage groundwater and requires groundwater sustainability plans to be developed for medium- and high-priority groundwater basins, as defined by the California Department of Water Resources. Please refer to Section 4.10, *Hydrology and Water Quality*, for more detailed descriptions of the groundwater basins at the project site.

California Water Code

The California Water Code contains regulations including, but not limited to water supply, safe drinking water, clean water, and water quality. More specifically, Division 24, Chapter 6, contains provisions for water supply reliability through water conservation and groundwater recharge, local projects, feasibility projects, management of Sacramento Valley water and habitat protection measures, and implementation of the river parkway program.

California Plumbing Code

The California Plumbing Code is codified in Title 24, California Code of Regulations, Part 5. The Plumbing Code contains regulations including, but not limited to, plumbing materials, fixtures, water heaters, water supply and distribution, ventilation, and drainage. More specifically, Part 5, Chapter 4, contains provisions requiring the installation of low flow fixtures and toilets. Existing development will also be required to reduce its wastewater generation by retrofitting existing structures with water efficient fixtures (Senate Bill [SB] 407 [2009] Civil Code Sections 1101.1 et seq.).

Urban Water Management Planning Act

In 1983, the California Legislature enacted the Urban Water Management Planning Act (Water Code, Section 10610 et seq.), which requires urban water suppliers to develop water management plans to actively pursue the efficient use of available supplies. Every five years, water suppliers are required to develop Urban Water Management Plans to identify short-term and long-term water demand management measures to meet growing water demands.

In preparing a UWMP, an urban water supplier must describe or identify the following, among other things (as set forth in Water Code Section 10631):

- "The service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning."
- "Projected population estimates" based on "data from the State, regional, or local service agency population projections within the service area," in "five-year increments to 20 years or as far as data is available."
- "Past and current water use" and "projected water use."
- "Existing and planned sources of water" for each five-year increment of the 20-year planning period.
- Specific detailed information about groundwater where it is identified as "an existing or planned source of water available to the supplier."

- "All water supply projects and water supply programs" that may be undertaken to meet "total projected water use," including "specific projects" and the "increase in water supply" expected from each project.
- An estimate of "the implementation timeline for each project or program."
- "Plans to supplement or replace" any "water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors" with "alternative sources or water demand management measures, to the extent practicable."
- "The reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable," for (i) an "average water year," (ii) a "single dry water year," and (iii) "[m]ultiple dry water years."
- "Opportunities for exchanges or transfers of water on a short-term or long-term basis."
- "Opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply."
- "Water demand management measures."

Senate Bill 610: Water Supply Assessments

As revised by Senate Bill (SB) 610 (Stats. 2002, ch. 643), Section 10910, *et seq*. of the California Water Code set forth the circumstances in which California Environmental Quality Act (CEQA) lead agencies must seek preparation of, or prepare themselves, "water supply assessments" for defined proposed "projects." At the time a lead agency determines that a proposed project requires an Environmental Impact Report (EIR), the lead agency shall identify any "public water system" that would serve the project site and shall request that any such entity prepare a WSA for the project. In the absence of such a public water system, the city or county lead agency must prepare its own WSA. SB 610 functions together with CEQA, in that a WSA must be included in "any environmental document" for any "project" subject to SB 610 (Water Code Section 10911(b); see also State CEQA Guidelines Section 15155(e); see also *Id*. Section 15361 [defines "environmental documents" to include "Negative Declarations…[and] draft and final EIRs"]).

One of the fundamental tasks of a WSA is to determine whether "total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses" (Water Code Section 10910 (c)(3), (c)(4)). In making such a determination, the authors of the WSA must address several factors. Specifically, the WSA must contain information regarding existing water supplies, projected water demand, and dry year supply and demand. In *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 433 ("*Vineyard*"), the California Supreme Court briefly summarized the key content requirements as follows:

> With regard to *existing* supply entitlements and rights, a water supply assessment must include assurances such as written contracts, capital outlay programs and regulatory approvals for facilities construction . . . but as to additional *future* supplies needed to serve the project, the assessment need include only the public water system's plans for acquiring the additional supplies, including cost and time estimates and regulatory approvals the system anticipates needing (Water Code §§ 10910, subd. (d)(2), and 10911, subd. (a)). (Original italics.)

"Existing" water supplies can be based on different kinds of legal rights or arrangements, including entitlements, water rights, and water service contracts. In many cases, these supplies are likely

already described in detail in the supplier's UWMP (Water Code Section 10631(b)). Suppliers are expressly permitted to rely on information contained in the most recently adopted UWMPs, provided that the water needed for proposed development project was accounted for therein (Water Code Section 10910(c)(2)).

In preparing a WSA, the public water system must disclose and document the quantity of water received from these various sources. Such supplies must be demonstrated by providing the following:

- Written contracts or other proof of entitlement to an identified water supply.
- Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system.
- Federal, State, and local permits for construction of necessary infrastructure associated with delivering the water supply.
- Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

A finding of insufficiency in a WSA does not require a city or county to deny or downsize a proposed development project. Rather, after identifying a shortfall, the public water system must provide its plans for acquiring "additional supplies" (or what the California Supreme Court called "future" supplies) (Water Code § 10911(a)). These plans should include information concerning the following:

1. The estimated total costs, and the proposed method of financing the costs, associated with acquiring the additional water supplies.
2. All federal, State, and local permits, approvals, or entitlements that are anticipated to be required in order to acquire and develop the additional water supplies.
3. Based on the considerations set forth in bullet points (1) and (2), the estimated timeframes within which the public water system, or the city and county . . . expects to be able to acquire additional water supplies.

These particular Water Code requirements for assessments are action-forcing, in that they require the public water system to lay out a roadmap for obtaining new water supplies once it becomes aware that existing supplies are insufficient for the proposed project together with other foreseeable planned growth.

Regardless of the information provided to a city or county in a WSA, SB 610 stops short of preventing cities and counties from approving the "projects" at issue absent "sufficient" water supplies. But where "existing water supply entitlements, water rights, or water service contracts" are "insufficient" to serve proposed projects, SB 610 does require that, in approving projects in the face of insufficient supplies, cities and counties must "include" in their "findings for the project[s]" their "determination[s]" regarding water supply insufficiency. SB 610 functions together with CEQA, in that a water supply assessment must be included in "any environmental document" for any "project" subject to SB 610. (*Id*. subd. (b); Guidelines, § 15155, subd. (e); see also id. Section 15361 [defines "environmental documents" to include "Negative Declarations. . . [and] draft and final EIRs"]).

When a project is proposed in the annexation area, the applicant may need to submit a WSA per SB 610 depending on the size of the project.

Recycled Water Policy

On February 3, 2009, by Resolution No. 2009-0011, the State Water Board adopted a Recycled Water Policy in an effort to move toward a sustainable water future. The Recycled Water Policy states "we declare our independence from relying on the vagaries of annual precipitation and move toward sustainable management of surface waters and groundwater, together with enhanced water conservation, water reuse and the use of stormwater." The following goals were included in the Recycled Water Policy:

- Increase use of recycled water over 2002 levels by at least 1 million AFY by 2020 and at least 2 million AFY by 2030.
- Increase the use of stormwater over use in 2007 by at least 500,000 AFY by 2020 and at least 1 million AFY by 2030.
- Increase the amount of water conserved in urban and industrial areas by comparison to 2007 by at least 20 percent by 2020.
- Included in these goals is the substitution of as much recycled water for potable water as possible by 2030.

The Recycled Water Policy provides direction to the RWQCBs regarding issuing permits for recycled water projects, addresses the benefits of recycled water, addresses a mandate for use of recycled water and indicates the State Water Board will exercise its authority to the fullest extent possible to encourage the use of recycled water.

The Recycled Water Policy also indicates that some groundwater basins contain salts and nutrients that exceed or threaten to exceed water quality objectives established in basin plans and states that it is the intent of this Recycled Water Policy that all salts and nutrients be managed on a basin-wide or watershed-wide basis through development of regional or subregional management plans. Finally, the Recycled Water Policy addresses the control of incidental runoff from landscape irrigation projects, recycled water groundwater recharge projects, anti-degradation, control of emerging constituents and chemicals of emerging concern and incentives for use of recycled water.

In accordance with the provisions of the Recycled Water Policy, a Constituents of Emerging Concerns Advisory Panel was established to address questions about regulating constituents of concern (COCs) with respect to the use of recycled water. The Advisory Panel's primary charge was to provide guidance for developing monitoring programs that assess potential COC threats from various water recycling practices, including groundwater recharge/reuse and urban landscape irrigation. On June 25, 2010, the Advisory Panel provided recommendations to the State Water Board and California Department of Public Health in their Final Report "Monitoring Strategies for Chemicals of Emerging Concern in Recycled Water – Recommendations of a Scientific Advisory Panel". The State Water Board used those recommendations to amend the Recycled Water Policy in 2013 (State Water Board Resolution No. 2013-003).

The April 2013 amendment provides direction to the RWQCBs on monitoring requirements for COCs in recycled water. The monitoring requirements pertain to the production and use of recycled water for groundwater recharge reuse by surface and subsurface application methods, and for landscape irrigation. The amendment identifies three classes of constituents to monitor:

- Human health-based COCs: COCs of toxicological relevance to human health.
- Performance indicator COCs: An individual COC used for evaluating removal through treatment of a family of COCs with similar physicochemical or biodegradable characteristics.

- Surrogates: A measurable physical or chemical property, such as chlorine residual or electrical conductivity, that provides a direct correlation with the concentration of an indicator compound. Surrogates are used to monitor the efficiency of COC treatment.

Only groundwater recharge reuse facilities would be required to monitor for COCs and surrogates. Surface application and subsurface application facilities would have different mandatory COCs and a different monitoring schedule. Monitoring is not required for recycled water used for landscape irrigation projects that qualify for streamlined permitting unless monitoring is required under the adopted salt and nutrient management plan. Streamlined permitting projects must meet the criteria specified in the Policy including compliance with Title 22, application at agronomic rates, compliance with any applicable salt and nutrient management plan, and appropriate use of fertilizers.

Water Conservation Act of 2009

Requirements regarding per capita water use targets are defined in the Water Conservation Act of 2009, which was signed into law in November 2009 as part of a comprehensive water legislation package. Known as SB X7-7, the legislation sets a goal of achieving a 20 percent reduction in urban per capita water use Statewide by 2020. SB X7-7 requires that retail water suppliers define in their 2010 UWMPs the gallons per capita per day targets for 2020, with an interim 2015 target.

Assembly Bill 1881

Assembly Bill (AB) 1881 expanded previous legislation related to landscape water use efficiency. AB 1881, the Water Conservation in Landscaping Act of 2006, enacted landscape efficiency recommendations of the California Urban Water Conservation Council for improving the efficiency of water use in new and existing urban irrigated landscapes in California. AB 1881 required the DWR to update the existing Model Local Water Efficient Landscape Ordinance and local agencies to adopt the updated model ordinance or an equivalent. The law also requires the California Energy Commission (CEC) to adopt performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Assembly Bill 2882

AB 2882 was passed in 2008 and encourages public water agencies throughout California to adopt conservation rate structures that reward consumers who conserve water. AB 2882 clarifies the allocation-based rate structures and establishes standards that protect consumers by ensuring a lower base rate for those who conserve water.

Local

American Canyon Municipal Code

Section 13.06.090 of American Canyon Municipal Code establishes that at the time of submission of an application for a building permit for connection to the city water system, an applicant shall be required to pay a water capacity fee, in proportion to the new connection's impact on the water system.

Section 13.10 of the American Canyon Municipal Code limits new industrial water users within the City's water service area to a net use of 650 gallons per acre per day (GPAD) and requires dual-

plumbing with purple pipe.[7] For use greater than 650 GPAD, offset options include, but are not limited to, retrofit of existing residences with low flow fixtures, purchase of otherwise developable land as permanent open space, or acquisition of other water supply resources as provided for by a water supply analysis that follows the Zero Water Footprint (ZWF) methodology (see below).

American Canyon 2020 Urban Water Management Plan

The City's 2020 Urban Water Management Plan identifies the following policies that would apply to the project:

- ZWF Policy: This policy has a goal of no loss in reliability or increase in water rates for existing water service customers due to new demand for water within the City's water service area. Developers must ensure that all new developments offset the amount of increased potable water that will be consumed by their project on a one-to-one basis. Developers are required to minimize their demand for new potable water by using water efficient fixtures, consuming recycled water for non-potable uses when available, dual plumbing buildings, installing water wise landscaping and irrigation, and other appropriate measures. Methods for offsetting the increase in potable water consumption might include contributing to the City's existing conservation programs, converting an existing public use of potable water to recycled water, contributing to projects that reduce potable water demand, increase capacity to produce recycled water, or expand the reclaimed water system, or acquiring water supply from another source.

b. Wastewater

Federal

Federal Clean Water Act

The federal Clean Water Act is described in Section 4.10, *Hydrology and Water Quality* (see Section 4.10.2)

State and Regional

Standards for wastewater treatment plant effluent are established using State and federal water quality regulations. After treatment, wastewater effluent is either disposed of or reused as recycled water. The Regional Water Quality Control Board (RWQCBs) set the specific requirements for community and individual wastewater treatment and disposal and reuse facilities through the issuance of Waste Discharge Requirements, required for wastewater treatment facilities under the California Water Code Section 13260.

The California Code of Regulations Title 22, Division 4, Chapter 3, Sections 60301 through 60355 are used to regulate recycled wastewater and are administered by the RWQCBs. Title 22 contains effluent requirements for four levels of wastewater treatment, from un-disinfected secondary recycled water to disinfected tertiary recycled water. Higher levels of treatment have higher effluent standards, allowing for a greater number of uses under Title 22, including irrigation of freeway landscaping, pasture for milk animals, parks and playgrounds, and vineyards and orchards for disinfected tertiary recycled water.

[7] Purple pipe allows for use of recycled water for landscaping.

Local

American Canyon Municipal Code

Section 14.06.020 establishes that at the time of submission of application for building permit for connection to the city wastewater collection system, an applicant shall pay a wastewater capacity fee in proportion to use of the capacity of the wastewater system.

c. Stormwater

Federal

Federal Clean Water Act

The federal Clean Water Act is described in Section 4.10, *Hydrology and Water Quality*. Pertinent discussions about stormwater are included in the following subsections: *CWA Section 402, National Pollutant Discharge Elimination System* and *Phase II Municipal Storm Water Permit*.

State

General Construction Activity Storm Water Permit

The California Construction Stormwater Permit (Construction General Permit) is discussed in Section 4.10, *Hydrology and Water Quality* (see subsection 4.10.2).

Local

American Canyon Municipal Code

Section 14.28.082 of the American Canyon Municipal Code identifies that the City may establish volume and rate of stormwater controls from new developments and redevelopment as may be appropriate to minimize peak flows or total runoff volume, and to mimic the pre-development site hydrology. This section also includes the requirement that qualifying projects prepare a SCP that meets the criteria in the BASMAA Post Construction Manual.

d. Solid Waste

Federal

Title 40 of the Code of Federal Regulations

Title 40 of the Code of Federal Regulations, Part 258 (Resource Conservation and Recovery Act, Subtitle D), contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the Federal landfill criteria.

State

California Code of Regulations Tile 14

The California Code of Regulations Title 14, Division 7, outlines current CalRecycle regulations pertaining to non-hazardous waste management in California, which includes minimum standards for solid waste handling and disposal; compostable materials handling operations and facilities

regulatory requirements; standards for handling and disposal of asbestos containing waste; resource conservation programs; enforcement of solid waste standards and administration of solid waste facility permits; special waste standards; used oil recycling program; electronic waste recovery and recycling; mandatory commercial recycling; and short-lived climate pollutants.

Assembly Bill 341

The purpose of Assembly Bill (AB) 341 of 2011 (Public Resource Code [PRC] Chapter 476, Statutes of 2011) is to reduce greenhouse gas emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California. In addition to Mandatory Commercial Recycling, AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

Senate Bill 1383

SB 1383 of 2016 (PRC Chapter 395, Statutes of 2016) established the following goals: a 50-percent reduction in the level of the statewide disposal of organic waste from 2014 levels by 2020, and a 75-percent reduction in the level of the statewide disposal of organic waste from 2014 levels by 2025. This bill also authorized CalRecycle to adopt regulations, to take effect on or after January 1, 2022, to achieve these targets.

Assembly Bill 939

AB 939 (PRC 41780) requires cities and counties to prepare integrated waste management plans and to divert 50 percent of solid waste from landfills beginning in calendar year 2000 and each year thereafter. AB 939 also requires cities and counties to prepare source reduction and recycling elements as part of the integrated waste management plans. These elements are designed to develop recycling services to achieve diversion goals, stimulate local recycling in manufacturing, and stimulate the purchase of recycled products.

Assembly Bill 1826

AB 1826 of 2014 (PRC Chapter 727, Statutes of 2014) requires businesses that generate a specified amount of organic waste per week to arrange for recycling services for that waste, and that jurisdictions implement a recycling program to divert organic waste from businesses subject to the law. The jurisdictions must report to CalRecycle on their progress in implementing an organic waste recycling program. As of January 1, 2017, businesses that generate four cubic yards or more of organic waste per week shall arrange for organic waste recycling services.

Senate Bill 1016

SB 1016 requires that the 50 percent solid waste diversion requirement established by AB 939 be expressed in pounds per person per day. SB 1016 changed the CalRecycle review process for each municipality's integrated waste management plan. After an initial determination of diversion requirements in 2006 and establishing diversion rates for subsequent calendar years, the Board reviews a jurisdiction's diversion rate compliance in accordance with a specified schedule. Since January 1, 2018, the Board is required to review a jurisdiction's source reduction and recycling element and hazardous waste element once every two years.

Local

American Canyon Municipal Code

Section 8.20 of the American Canyon Municipal Code includes requirements for mandatory municipal solid waste, recycling, and composting material disposal reductions. Section 8.20.030 includes the requirements for commercial businesses, which would apply to the project. Section 8.20.100 requires new buildings to comply with California Green Building Standards (CALGreen), including the requirements for new commercial buildings to provide readily accessible areas identified for blue container and green container material storage and collection, consistent with the three-container collection program offered by the city, as well as compliance with CALGreen requirements for diverting construction and demolition debris.

e. Electric Power and Natural Gas

State

California Energy Commission

As the State's primary energy policy and planning agency, the CEC collaborates with State and federal agencies, utilities, and other stakeholders to develop and implement State energy policies. Since 1975, the CEC has been responsible for reducing the State's electricity and natural gas demand, primarily by adopting new Building and Appliance Energy Efficiency Standards that have contributed to keeping California's per capita electricity consumption relatively low. The CEC is also responsible for the certification and compliance of thermal power plants 50 megawatts and larger, including all project-related facilities in California (CEC 2022).

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates investor-owned electric and natural gas utilities operating in California. The energy work responsibilities of the CPUC are derived from the California State Constitution, specifically Article XII, Section 3 and other sections more generally, numerous State legislative enactments and various Federal statutory and administrative requirements. The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from PG&E and other natural gas utilities across California (CPUC 2022a).

Local

American Canyon Municipal Code

Section 18.40.120 of the American Canyon Municipal Code requires that all utilities be installed underground in accordance with the provisions of the American Canyon Municipal Code. It also requires that all underground utilities be installed before preparation of subgrade for paving or any other site improvements that may affect the orderly installation of the underground utilities.

American Canyon General Plan

The City of American Canyon General Plan sets forth the following goals and policies relevant to public services and utilities:

Goal 5: It shall be the goal of American Canyon to establish and maintain a secure water supply and treatment, distribution and storage system to serve the land uses proposed under the general plan.

Policy 5.2.5: In the event that sufficient capacity is not available to serve a proposed project, the City shall not approve the project until additional capacity or adequate mitigation is provided.

Goal 5C: Establish and maintain adequate planning, construction, maintenance, and funding for storm drain and flood control facilities to support permitted land uses and preserve the public safety; upgrading existing deficient systems and expanding, where necessary, to accommodate new permitted development and to protect existing development in the City. Pursue public funding sources (i.e., grants) to reduce fiscal impacts of implementation to the City.

Policy 5.10.3: Require that adequate storm drain and flood control facilities be constructed coincident with new development.

Policy 5.10.12: Require that new development be designed to prevent the diversion of floodwaters onto neighboring parcels.

Policy 5.10.18: Require that development projects maximize the use of pervious surface materials (grass, ground cover, and other) that minimize stormwater runoff.

Goal 5D: Maintain the quality of surface and subsurface water resources within the City of American Canyon.

Policy 5.12.2: Incorporate features in new drainage detention facilities which enhance the water quality of discharges from the facility.

Policy 5.13.1: Require that development activities comply with the State General Storm Water Permit for Construction Activities with measures that protect surface water quality to the maximum extent practicable.

Goal 6A: Maintain a high level of fire protection and emergency services to City/District businesses and residents.

Goal 6B: Ensure a high level of police protection for the City's residents, businesses, and visitors.

Policy 6.7.1: Work with the Sheriff's Department to ensure that enough personnel are added to the department to serve the needs of a growing population and a developing City.

4.17.3 Impact Analysis

a. Significance Thresholds and Methodology

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on utilities and service systems if it would:

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 has 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; or
5. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Methodology

This analysis considers the existing capacity of utilities serving the City, estimates qualitatively and quantitively the potential additional demand on utilities, and identifies whether the existing system can serve the demand of the existing demand plus the project's estimated demand.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

IMPACT UTL-1 THE PROJECT WOULD INCREASE DEMAND FOR WATER, WASTEWATER, ELECTRIC POWER, TELECOMMUNICATIONS, AND STORMWATER DRAINAGE; HOWEVER, NO ADDITIONAL RELOCATION OR CONSTRUCTION OF UTILITY SERVICES WILL BE REQUIRED TO SERVICE THE PROJECT BEYOND CONNECTIONS TO EXISTING UTILITIES. THE PROJECT WOULD NOT INCREASE DEMAND ON NATURAL GAS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Water and Wastewater

The Newell Drive Extension would not induce water demand or wastewater. Development facilitated by the project would require installation of potable and recycle water connections, fire hydrants, and connections to sewer.

Such facilities would be installed during individual project construction and generally within the disturbance area of such projects or the rights-of-way of previously disturbed roadways; therefore, the construction of these infrastructure improvements is within the anticipated project disturbance area and would not otherwise cause significant environmental effects beyond those already identified throughout this EIR.

The City of American Canyon has several policies to address and minimize additional potable water demand and wastewater. Sections 13.06.090 and 14.06.020 of the American Canyon Municipal Code would require any applicants of future development on the project site to pay a water capacity fee and wastewater capacity fee, respectively in proportion to the new connection's impact on the water and wastewater system. The payment of this fee would help ensure that the City would have sufficient capacity within its water and wastewater system to accommodate the project.

In addition, and as described in further detail in Impact UTIL-2, the project would implement the Zero Water Footprint (ZWF) policy to cause a net zero potable water demand increase. Furthermore, as described in Impacts UTIL-2 and UTIL-3, there would be sufficient water capacity and wastewater treatment capacity to accommodate the project's demand.

The project would include connections to the existing water and wastewater system but would not create a substantial water demand (due to implementation of the American Canyon Municipal Code and policies), such that new or expanded water or wastewater facilities would be needed. The water connections associated with the project would not cause significant environmental effects beyond those already identified throughout this EIR. As such, impacts related to potential new water and wastewater facilities would be less than significant.

Stormwater

The project would extend Newell Drive and accommodate construction of 494,942 square feet of commercial development; 696,888 square feet of industrial development; and 189,698 square feet of visitor-servicing/Hotel uses. The project would increase the amount of impervious surface coverage on the project site and would create the potential for increased runoff leaving the project site that may create potential flooding conditions in downstream waterways.

As discussed in Section 4.10, *Hydrology and Water Quality*, runoff associated with the project would be regulated by Section 14.28 of the American Canyon Municipal Code, which ensure compliance with the Phase II MS4 Permit. Compliance with these regulations would ensure that future development and the Newell Drive Extension mimic the pre-development site hydrology, which would ensure that there is proper stormwater drainage on the project site and would minimize any operational impacts related to water quality or flooding.

The project would require new or expanded stormwater facilities pursuant to the regulatory requirements in Section 14.28 of the American Canyon Municipal Code. There would be no additional impacts related to installation of these facilities beyond those already disclosed in this EIR. Therefore, impacts related to potential new stormwater facilities would be less than significant.

Electricity

The project would require connections to existing electrical transmission and distribution systems in the City to serve development facilitated by the project. This service would be provided in accordance with the rules and regulations of PG&E and under the authority of the CPUC. Dry utilities for the project site are served with overhead utility lines on Paoli Loop and Watson Lane. In accordance with existing Engineering standards, new utilities on Newell Drive would be placed underground. Existing overhead utilities within Paoli Loop would be placed underground at the time Paoli Loop is improved to its ultimate width. Based on availability of existing electrical infrastructure, the project would connect to existing infrastructure. Therefore, there would be adequate electrical facilities to serve development facilitated by the project and impacts related to potential new electrical facilities would be less than significant.

Natural Gas

As described in Section 4.8, *Greenhouse Gas Emissions*, the project would not use natural gas, as required by Mitigation Measure GHG-3. As such, the project would not place demand on natural gas facilities and there would be no impact related to natural gas facilities.

Telecommunications

Implementation of the project would require connections to existing utility infrastructure to meet the needs of future development. Based on the availability of existing telecommunications infrastructure along Watson Lane, Paoli Loop Road, the northern boundary of the project site, and

bisecting the middle of the project site from east to west, construction of new telephone and cable lines would not be required, and all sites would be able to connect to existing infrastructure. Development facilitated by the project would be required to adhere to applicable laws and regulations related to the connection to existing telecommunication infrastructure. Therefore, there would be adequate telecommunications facilities to serve the development facilitated by the project and impacts related to potential new telecommunications facilities would be less than significant.

Conflicts with Existing Utilities

An existing underground natural gas transmission line is located along the private segment of Watson Lane. Project excavation and construction, including the Newell Drive extension may conflict with existing underground utilities, including the natural gas transmission line located along Watson Lane. As required by Government Code Section 4216, applicants for future development and the Newell Drive Extension, would be required to contact USA North to avoid underground utilities during construction. As such, impacts on underground utilities would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2:	Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

IMPACT UTL-2 THE PROJECT WOULD INCREASE DEMAND FOR WATER; HOWEVER, WITH ADHERENCE TO THE ZWF POLICY, WATER SUPPLIES WOULD BE SUFFICIENT TO SERVE THE PROJECT AND REASONABLY FORESEEABLE FUTURE DEVELOPMENT IN NORMAL, DRY, AND MULTIPLE DRY YEARS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Future development facilitated by the project would create additional demand for water in the City of American Canyon. Water demand for the project was estimated using water demand rates for land use types identified in the Broadway District Specific Plan EIR (City of American Canyon 2016c). Each development type has its own associated water use factor by unit, which were used to calculate projected water demand volumes for each type of development. Table 4.17-2 summarizes the estimated water demand from the project. Overall, the project is estimated to increase water demand by 0.82 mgd or 914 AFY. The City's UWMP identifies the existing and projected supply and water demand for normal, dry, and multiple dry years. These projections are summarized in Table 4.17-3.

The City's Urban Water Management Plan considers the reliability of meeting customer demand by analyzing plausible hydrological variability, regulatory variability, climate conditions, and other factors that could affect the City's water supply and its customers' water uses (City of American Canyon 2022). Water demand projections are based on future population projections and the implementation of required policies (City of American Canyon 2022).

Table 4.17-2 Projected Water Demand

Development Type	Estimated Project Buildout [a]	Water-use factor [b]	Projected Water Demand		
			gpd	mgd	AFY
Commercial	494,942 sf	0.21 gpd/sf	103,938	0.10	116
Industrial	696,888 sf	1 gpd/sf	696,888	0.70	781
Hotel	200 rooms[c]	75 gpd/hotel room	15,000	0.02	17
Total			**815,826**	**0.82**	**914**

Source: City of American Canyon 2016c

Notes:

a. gpd = gallons per day; sf = square foot; mgd = million gallons per day; AFY = acre feet per year

b. The water use factors are from the Draft EIR for the Broadway District Specific Plan EIR (City of American Canyon 2016c).

c. No proposed hotel has been identified at this time. For the purposes of this analysis, a conservative assumption is made to estimate potential water use. The 200 hotel rooms is estimated based on the Watson Ranch Specific Plan, south of the project, which includes a 200-room hotel. This is a conservative assumption.

Table 4.17-3 Projected Water Supply and Demand

	2025	2030	2035	2040
Normal Years				
Supply Totals (af/yr)	4,959	4,959	5,575	5,575
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	**1,416**	**1,174**	**994**	**753**
Single-Dry Year				
Supply Totals (af/yr)	1,897	1,897	2.132	2,132
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	**-1,646**	**-1,888**	**-2,448**	**-2,689**
Multiple Dry Years (First Year)				
Supply Totals (af/yr)	3,359	3,359	3,776	3,776
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	**-184**	**-426**	**-804**	**-1,046**
Multiple Dry Years (Second Year)				
Supply Totals (af/yr)	3,359	3,359	3,776	3,776
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	**-184**	**-426**	**-804**	**-1,046**
Multiple Dry Years (Third Year)				
Supply Totals (af/yr)	3,251	3,251	3,655	3,655
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	**-291**	**-534**	**-925**	**-1,167**
Multiple Dry Years (Fourth Year)				
Supply Totals (af/yr)	3,251	3,251	3,655	3,655
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	**-291**	**-534**	**-925**	**-1,167**
Multiple Dry Years (Fifth Year)				
Supply Totals (af/yr)	3,251	3,251	3,655	3,655
Demand Totals (af/yr)	3,543	3,785	4,580	4,822
Difference	**-291**	**-534**	**-925**	**-1,167**

Source: City of American Canyon 2022

According to the UWMP, the City's combined projected water supplies are sufficient to meet projected demands during normal water year conditions. Under single-dry water year and multi-dry water year conditions, the supply is insufficient to meet demands. The City has a Water Shortage Contingency Plan (WSCP), which details the stages of actions to be taken during a reduction in available water supply. These actions are broken up based on six possible stages of water shortage. Such actions include limiting landscape irrigation, providing rebates on plumbing fixtures and other water-saving devices, prohibiting use of potable water for washing hard surfaces, and restricting water usage for decorative features such as fountains (City of American Canyon 2022).

The project would be required to comply with the ZWF Policy. Under this policy, developers must ensure that new development will offset the increased potable water demand that would be consumed by their project on a one-to-one basis. Developers are required to minimize demand for new potable water by using water efficient fixtures; using recycled water for non-potable uses when available; using recycled water for toilet flushing via dual plumbing at commercial and industrial buildings; installing water wise landscaping and irrigation; and other appropriate measures (City of American Canyon 2022). Methods for offsetting any increase in potable water consumption may include contributing to the City's existing conservation programs; converting an existing public use of potable water to recycled water; contributing to projects that reduce potable water demand; increasing capacity to produce recycled water; expanding the reclaimed water system; or acquiring water supply from another source.

In addition, the American Canyon Municipal Code Chapter 13.10 (New Water and Sewer Connections and Services) limits new industrial water users within the City's water service area to a net use of 650 gallons per acre per day and requires dual plumbing with purple pipe.[8] For use greater than 650 gallons per acre per day, offset options include but are not limited to, retrofit of existing residences with low flow fixtures, purchase of otherwise developable land as permanent open space, or acquisition of other water supply resources as provided for by a water supply analysis that follows the ZWF methodology (City of American Canyon 2022).

Compliance with the ZWF Policy and American Canyon Municipal Code Chapter 13.10 would ensure that the project would have no net increase in water demands. Thus, impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

[8] Purple pipe allows for use of recycled water for landscaping.

Threshold 3:	Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

IMPACT UTL-3 THE PROJECT WOULD INCREASE DEMAND FOR WASTEWATER TREATMENT BUT THERE IS ADEQUATE WASTEWATER TREATMENT CAPACITY TO SERVE THE PROJECT'S PROJECTED DEMAND IN ADDITION TO EXISTING COMMITMENTS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The amount of wastewater generated by the project was estimated based on the estimated water demand calculated in Impact UTIL-2 and the principle that water demand is 120 percent of wastewater generation (due to evaporation and system losses, meaning that not all water that is used ends up going to the wastewater treatment plan). The total wastewater demand due to the project is estimated to be approximately 0.68 mgd. However, this is a conservative calculation that does not account for the reductions in wastewater demand from implementing the ZWF Policy. It is expected that the project's demand on wastewater would be substantially less than 0.68 mgd. Nonetheless, this number is used to provide a conservative analysis.

The WFR had an existing wastewater treatment capacity of 2.5 mgd in 2020 at average dry weather flow conditions. In 2020, the City treated 1,625 AF of wastewater, which is equivalent to 1.45 mgd (City of American Canyon 2022). In 2020 there was 1.05 mgd of remaining capacity for wastewater treatment. Therefore, the WFR would have enough capacity to treat wastewater induced by the project. Impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 4:	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?
Threshold 5:	Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

IMPACT UTL-4 THE PROJECT WOULD NOT GENERATE SOLID WASTE IN EXCESS OF STATE OR LOCAL STANDARDS, WOULD NOT EXCEED THE CAPACITY OF LOCAL INFRASTRUCTURE, AND WOULD NOT IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Implementation of the project would generate additional solid waste. Project construction would create construction debris, such as scrap lumber and flooring materials. Project operation would create typical wastes associated with industrial, commercial, and hotel development.

As described in Section 4.13.1, *Setting*, the DRRTF is permitted to receive 1,440 tons of solid waste per day (County of Napa 2008). Between 2020 and 2021, the City of American Canyon disposed a total of approximately 17,128 tons (CalRecycle 2022b). Per capita waste disposal averaged averages 20.50 pounds per employee per day (CalRecycle 2022c). As described in Chapter 2, *Project Description,* the project is expected to generate 1,650 new employees. Total waste generation based on the number of employees would be approximately 17 tons per day, which would

represent approximately 1.2 percent of the permitted daily solid waste allowed at the DRRTF.[9] While it is anticipated that the project would increase solid waste generation, it is expected that solid waste facilities would have enough capacity.

AB 939 requires the City to divert 50 percent of solid waste from landfills, and SB 1383 would require the City to reduce organic waste disposal by 75 percent by 2025. New development would be required to comply with Section 8.20 of the American Canyon Municipal Code, which includes requirements for mandatory municipal solid waste, recycling, and composting material disposal reductions, as well as compliance with CALGreen requirements for diverting construction and demolition debris. As discussed above, local infrastructure would have the capacity to accommodate solid waste generated by development facilitated by the project. Therefore, impacts on solid waste infrastructure would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.17.4 Cumulative Impacts

The geographic scope of the cumulative utilities and service systems analysis is the service area for the utilities. Cumulative development projects would all place a demand on water; wastewater utilities and treatment; stormwater utilities; electricity and natural gas utilities; telecommunication utilities; and solid waste facilities.

Cumulative projects would be required to comply with similar policies as identified for the project. For example, other cumulative projects would also be required to pay a water capacity fee and wastewater capacity fee in proportion to the new connection's impact on the water and wastewater system. Cumulative projects in the City would also be required to implement the ZWF policy. As such, cumulative water and wastewater impacts would be less than significant.

Cumulative projects would be required to comply with Section 14.28 of the American Canyon Municipal Code (for projects in the City of American Canyon) and Section 16.28 of the Napa County Municipal Code (for projects in unincorporated Napa County). Section 16.28 of the Napa County Municipal Code includes similar requirements as Section 14.28 of the American Canyon Municipal Code. Implementation of both municipal codes would ensure that there is proper stormwater drainage on cumulative project sites. Through compliance with Section 14.28 of the American Canyon Municipal Code and Section 16.28 of the Napa County Municipal Code, cumulative projects would not require additional stormwater utilities beyond those identified for each cumulative project. As such, cumulative stormwater utility impacts would be less than significant.

Cumulative projects within the City are located in a built out area where they could connect to existing electricity, natural gas, and telecommunication utilities. Because cumulative projects would connect to existing electricity, natural gas, and telecommunication utilities in an already built out area, cumulative projects would not result in significant environmental effects and cumulative impacts would be less than significant.

[9] 0.07 percent = (17 tons per day / 1,440 tons per day) * 100

In addition, cumulative projects in the City would be required to comply with Section 8.20 of the American Canyon Municipal Code to minimize solid waste generation. Cumulative projects in unincorporated Napa County would be required to comply with CALGreen requirements for diverting construction and demolition debris, pursuant to Chapter 15.14 of the Napa County Municipal Code (which adopts CALGreen). In addition, cumulative projects in unincorporated Napa County would be required to comply with the County's Integrated Waste Management Plan. Because each cumulative project would minimize solid waste generation, in compliance with federal, state, and local regulations, cumulative impacts on solid waste facilities would be less than significant.

4.18 Wildfire

This section summarizes the wildfire risks in and near the project site and analyzes the impacts related to wildfire risks due to the project.

4.18.1 Setting

a. Overview of Wildfire

Wildfires are a regular feature of the ecosystem in large parts of California and many of the State's native species have evolved to cope with the natural fire cycle, although increasing development into wildfire-prone areas makes wildfires a hazard of concern. A wildfire is an uncontrolled fire in an area of combustible vegetation that is generally extensive in size. Wildfires differ from other fires in that they take place outdoors in areas of grassland, woodlands, brush land, scrubland, peatland, and other wooded areas that act as a source of fuel, or combustible material. Buildings may become involved if a wildfire spreads to adjacent communities.

Wildland-urban interface fires are hazards because they threaten areas located near the border between urban and wildlands. The primary factors that increase an area's susceptibility to wildfire include slope and topography, vegetation type and condition, and weather and atmospheric conditions. Factors such as narrow, winding roads and vegetation also can slow response to fire, increasing risk of spread. Wildfires that burn exclusively in natural areas generally pose little risk to lives or property, although the smoke from such fires may cause respiratory problems for people nearby. The fire season in the State of California is starting earlier and ending later each year, with climate change considered to be a key factor for this phenomenon (California Department of Forestry and Fire Protection [CalFire] 2022a).

b. Wildfire Factors

Slope and Aspect

According to CalFire, sloping land increases susceptibility to wildfire because fire typically burns faster up steep slopes (CalFire 2018). Additionally, steep slopes may hinder firefighting efforts. Following severe wildfires, sloping land is also more susceptible to landslide or flooding from increased runoff during substantial precipitation events. Aspect is the direction that a slope faces, and it determines how much radiated heat the slope will receive from the sun. Slopes facing south to southwest will receive the most solar radiation. As a result, such slopes are warmer and the vegetation drier than on slopes facing a northerly to northeasterly direction, increasing the potential for wildfire ignition and spread (CalFire 2018).

Generally, the urbanized area of the City is located west of Newell Drive/Flosden Road. Topography in this area of the City is nearly flat with a slight westward slope towards the Napa-Sonoma Marshes Wildlife Area (U.S. Geological Survey [USGS] 2022). The La Vigne neighborhood, American Canyon High School, and Canyon Estates neighborhood are located east of Newell Drive/Flosden Road, closer to the hillside areas just outside of the City. In this area the topography is slightly sloping upwards to the rolling hills east of the City.

Average slope on the project site is minimal and ranges from approximately 2 percent to 4 percent; however, western facing slopes are present east of the project site in the Newell Open Space Preserve.

Vegetation

Vegetation is "fuel" to a wildfire and it changes over time. The relationship between vegetation and wildfire is complex, but generally some vegetation is naturally fire resistant, while other types are very flammable. For example, cured grass is much more flammable than standing trees (CalFire 2018). Grass is considered an open fuel, in which oxygen has free access to promote the spread of fire. Additionally, weather and climate conditions, such as drought, can lead to increasing dry vegetation with low moisture content, increasing its flammability. In addition, wildfire behavior depends on the type of fuel present, such as ladder, surface, and aerial fuels. Ladder fuels provide a path for a surface fire to climb upward, into the crowns of trees. Surface fuels include grasses, logs, and stumps low to the ground. Aerial fuels include limbs, foliage, and branches not in contact with the ground (CalFire 2022b).

Naturally occurring (native and exotic non-native) vegetation cover within the City, consists of wetlands, and annual grasslands at the western edge of the City along the Napa-Sonoma Marshes Wildlife Area. This vegetation cover does not present a high risk of wildland fire fuel because grasses do not represent a large volume of fuel. Along the eastern hills east of the city, the two dominant vegetation communities are Oak Woodlands and Annual/Native Grasslands. Both of these vegetation communities, as well as the other minor vegetation communities mapped within the hillside area are susceptible to wildfire.

The project site is surrounded by agricultural and industrial lands directly to the north and east, which include large dirt patches, dry grasses, field crops, and scattered trees and shrubs. Further east of the project site a mix of grasses, oak, and chapparal vegetation can be found in the Newell Open Space Preserve and Lynch Canyon Open Space. The project site itself includes grasslands.

Weather and Atmospheric Conditions

Wind, temperature, and relative humidity are the most influential weather elements in fire behavior and susceptibility (CalFire 2018). Fire moves faster under hot, dry, and windy conditions. Wind may also blow embers ahead of a fire, causing its spread. Drought conditions also lead to extended periods of excessively dry vegetation, increasing the fuel load and ignition potential.

According to the Western Regional Climate Center, average annual precipitation in American Canyon is 20.26 inches. Generally, in an average or typical year, most precipitation is received from October through April (Western Regional Climate Center 2016). May through September are the driest parts of the year and coincide with what has traditionally been considered the fire season in California. However, increasingly persistent drought and climatic changes in California have resulted in drier winters and fires during the autumn, winter, and spring months are become more common.

Power Lines

Above-ground power lines have the potential to contribute to wildfire risk, especially when they are near or traverse wilderness areas. In some instances, high winds can blow nearby trees and branches into powerlines, sparking fires. Wind can also snap wooden poles, causing live wires to fall onto nearby grass or other fuel, igniting it. While the California Public Utilities Commission estimates only about 10 percent of California's wildfires are triggered by power lines, the frequency and severity of wildfires has spurred the agency to make new requirements for power line safety practices.

PG&E transmission lines traverse the City, both underground and above ground. Of note are the high-power electrical transmission lines which run northeast by southwest through the City (California

Energy Commission 2022). These lines are located approximately 1.75 miles from the project site. In addition, there are existing distribution lines on Watson Lane and Paoli Loop Road.

c. Wildfire Hazards

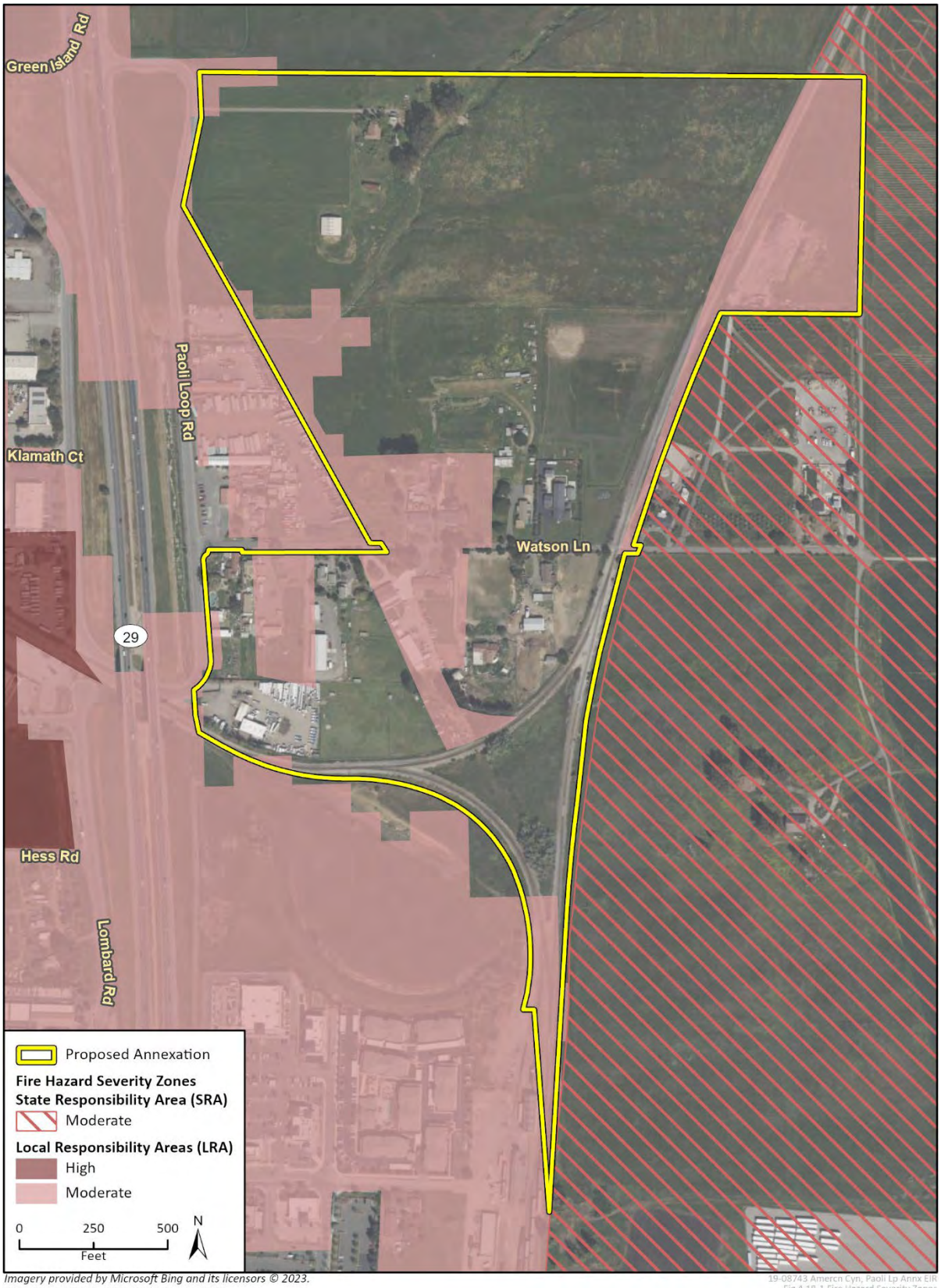
Once a fire is started, the spread and behavior of a fire become a function of fuel characteristics, terrain, and weather conditions. Fires are typically classified by type and intensity. Fire types may include understory fires, crown fires, surface fires, and broadcast fires, among others. Fire intensity, or severity, is the heat energy released by a fire either during a smoldering or raging fire event (CalFire 2022b).

Wildfire activity is closely related to temperature and drought conditions, and in recent decades, increasing drought frequency and warming temperatures have resulted in increased fire activity and the largest, most destructive, and deadliest wildfires in the State's history. Climate change will continue to produce conditions that facilitate a longer fire season, which, when coupled with human-caused changes in the seasonality of ignition sources, will produce more, longer, and bigger fires during more times of the year. According to California's Fourth Climate Change Assessment, Statewide Summary Report (OPR 2018), if greenhouse gas emissions continue to rise, the frequency of extreme wildfires burning over 25,000 acres could increase by 50 percent by 2100, and the average area burned Statewide could increase by 77 percent by the end of the century.

CalFire has mapped areas of significant fire hazards in the state through its Fire and Resources Assessment Program. These maps place areas of the state into different Fire Hazard Severity Zones (FHSZ) based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather. Typically, these classifications include Non-Wildland, Non-Urban, Moderate, High and Very High. As part of this mapping system, land where CalFire is responsible for wildland fire protection and generally located in unincorporated areas is classified as a State Responsibility Area (SRA), which are managed by CalFire. Where local fire protection agencies are responsible for wildfire protection, the land is classified as a Local Responsibility Area (LRA) (CalFire 2020). CalFire responds to wildland fires from several fire stations, depending on their proximity and availability.

CalFire maps three zones on SRA: 1) Moderate FHSZ; 2) High FHSZ; and 3) Very High FHSZ. Each of the zones influence how people construct buildings and protect property to reduce risk associated with wildland fires. Under state regulations, areas within very high fire hazard risk zones must comply with specific building and vegetation management requirements intended to reduce property damage and loss of life within these areas. As shown in Figure 4.18-1, the project site is located within an LRA, with portions of the project site designated as a Moderate FHSZ. Please note that Figure 4.18-1 includes a correction to CalFire mapping. CalFire mapping indicates that the northeastern corner (the area that is pre-zoned as Town Center) is within an SRA; however, mapping from the American Canyon Fire Protection District (ACFPD) indicates that the entirety of the project site is within the ACFPD jurisdictional boundary (ACFPD 2022a). For that reason, the northeastern corner of the project site is shown to be within an LRA. Furthermore, the project site is not located in a High or Very High FHSZ. The project site is bordered to the east by areas within an SRA designated as a Moderate FHSZ.

Figure 4.18-1 SRA Fire Hazard Severity Zones



Imagery provided by Microsoft Bing and its licensors © 2023.
Additional data provided by CAL FIRE, 2007.

19-08743 Amercn Cyn, Paoli Lp Annx EIR
Fig 4.18-1 Fire Hazard Severity Zones

4.18.2 Regulatory Setting

a. Federal Regulations

The Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 requires a state-level mitigation plan as a condition of disaster assistance. There are two different levels of state disaster plans: "Standard" and "Enhanced." States that develop an approved Enhanced State Plan can increase the amount of funding available through the Hazard Mitigation Grant Program. The Act also established new requirements for local mitigation plans.

National Fire Plan

The National Fire Plan was developed in August 2000, following a historic wildfire season. Its intent is to establish plans for active response to severe wildfires and their impacts to communities while ensuring sufficient firefighting capacity. The plan addresses firefighting, rehabilitation, hazardous fuels reduction, community assistance, and accountability.

b. State Regulations

California Board of Forestry

The Board of Forestry maintains fire safe road regulations, as part of Title 14 of the California Code of Regulations (CCR). This includes requirements for road width, surface treatments, grade, radius, turnarounds, turnouts, structures, driveways, and gate entrances. These regulations are intended to ensure safe access for emergency wildland fire equipment and civilian evacuation.

California Fire Code

The California Fire Code (Fire Code) is Chapter 9 of CCR Title 24. It establishes the minimum requirements consistent with nationally-recognized best practices to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structure, and premises, and to provide safety and assistance to firefighters and emergency responders during emergency operations. The Fire Code is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The Fire Code regulates the use, handling and storage requirements for hazardous materials at fixed facilities. The Fire Code and the California Building Code (CBC) use a hazard classification system to determine what protective measures are required to protect property and life from fire hazards. These measures may include construction standards, separations from property lines and specialized equipment. To ensure that these safety measures are met, the Fire Code employs a permit system based on hazard classification. The provisions of the Fire Code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout California.

More specifically, the Fire Code is included in Title 24 of the CCR. Title 24, part 9, Chapter 7 addresses fire-resistance-rated construction; CBC (Part 2), Chapter 7A addresses materials and construction methods for exterior wildfire exposure; Fire Code Chapter 8 addresses fire related

Interior finishes; Fire Code Chapter 9 addresses fire protection systems; and Fire Code Chapter 10 addresses fire related means of egress, including fire apparatus access road width requirements. Fire Code Section 4906 also contains existing regulations for vegetation and fuel management to maintain clearances around structures. These requirements establish minimum standards to protect buildings located in all FHSZs within SRAs and Wildland-Urban Interface Fire Areas. This Fire Code includes provisions for ignition-resistant construction standards for new buildings.

The City adopted the most recent 2019 California Fire Code under Ordinance No. 2019-03.

California Fire Plan

The Strategic Fire Plan for California is the State's road map for reducing the risk of wildfire. The most recent version of the Plan was finalized in August 2018 and directs each CalFire Unit to prepare a locally specific Fire Management Plan (CalFire 2018). In compliance with the California Fire Plan, individual CalFire units are required to develop Fire Management Plans for their areas of responsibility. These documents assess the fire situation within each of the 21 CalFire units and six contract counties. The plans include stakeholder contributions and priorities, and identify strategic areas for pre-fire planning and fuel treatment as defined by the people who live and work with the local fire problem. The plans are required to be updated annually.

California Office of Emergency Services

The California Office of Emergency Services (OES) prepares the State of California Multi-Hazard Mitigation Plan (SHMP). The SHMP identifies hazard risks, and includes a vulnerability analysis and a hazard mitigation strategy (OES 2018). The SHMP is federally required under the Disaster Mitigation Act of 2000 in order for the State to receive Federal funding. The Disaster Mitigation Act of 2000 requires a State mitigation plan as a condition of disaster assistance (Federal Emergency Management Agency 2022).

State Emergency Plan

The foundation of California's emergency planning and response is a statewide mutual aid system, which is designed to ensure that adequate resources, facilities, and other support is provided to jurisdictions whenever their own resources prove to be inadequate to cope with an emergency situation.

The California Disaster and Civil Defense Master Mutual Aid Agreement (California Government Code Sections 8555–8561) requires signatories to the agreement to prepare operational plans to use within their jurisdiction, and outside their area. These operational plans include fire and non-fire emergencies related to natural, technological, and war contingencies. The State of California, all State agencies, all political subdivisions, and all fire districts signed this agreement in 1950.

Section 8568 of the California Government Code, the "California Emergency Services Act," (Act) states that "the State Emergency Plan shall be in effect in each political subdivision of the state, and the governing body of each political subdivision shall take such action as may be necessary to carry out the provisions thereof." The Act provides the basic authorities for conducting emergency operations following the proclamations of emergencies by the Governor or appropriate local authority, such as a City Manager. The provisions of the act are further reflected and expanded on by appropriate local emergency ordinances. The Act further describes the function and operations of government at all levels during extraordinary emergencies, including war.

All local emergency plans are extensions of the State of California Emergency Plan. The State Emergency Plan conforms to the requirements of California's Standardized Emergency Management System (SEMS), which is the system required by Government Code 8607(a) for managing emergencies involving multiple jurisdictions and agencies. The SEMS incorporates the functions and principles of the Incident Command System (ICS), the Master Mutual Aid Agreement, existing mutual aid systems, the operational area concept, and multi-agency or inter-agency coordination. Local governments must use SEMS to be eligible for funding of their response-related personnel costs under state disaster assistance programs. The SEMS consists of five organizational levels that are activated as necessary, including: field response, local government, operational area, regional, and state. OES divides the state into several mutual aid regions. The City is located in Mutual Aid Region II, which includes Del Norte, Humboldt, Mendocino, Sonoma, Lake, Napa, Marin, Solano, Contra Costa, San Francisco, San Mateo, Alameda, Santa Clara, Santa Cruz, San Benito, and Monterey counties (OES 2019).

Government Code Sections 65302 and 65302.5, Senate Bill 1241 (Kehoe) of 2012

Senate Bill (SB) 1241 requires cities and counties to address fire risk in SRAs and Very High FHSZs in the safety element of their general plans. The bill also amended CEQA to direct amendments to the *CEQA Guidelines* Appendix G environmental checklist to include questions related to fire hazard impacts for projects located in or near lands classified as SRAs and Very High FHSZs. In adopting these Guidelines amendments, the Governor's Office of Planning and Research recognized that generally, low-density, leapfrog development may create higher wildfire risks than high-density, infill development. [1] Zoning around the project site is low density housing, allowing up to six dwelling units per acre.

California Public Utilities Commission General Order 166

General Order 166 Standard 1.E requires that investor-owned utilities (IOU) develop a Fire Prevention Plan which describes measures that the electric utility will implement to mitigate the threat of power-line fires generally. Additionally, this standard requires that IOUs outline a plan to mitigate power line fires when wind conditions exceed the structural design standards of the line during a Red Flag Warning in a high fire threat area. Fire Prevention Plans created by IOUs are required to identify specific parts of the utility's service territory where the conditions described above may occur simultaneously. Standard 11 requires that utilities report annually to the California Public Utilities Commission regarding compliance with General Order 166. In compliance with Standard 1.E of this General Order, Pacific Gas and Electric Company adopted a Fire Prevention Plan dated October 31, 2018.

c. Local Regulations

Napa County Operational Area Multi-Jurisdictional Hazard Mitigation Plan

In 2020, the Napa County prepared an updated Multi-Jurisdictional Hazard Mitigation Plan (HMP) to guide County and City Officials and Special Districts Managers in protecting the people and property within the County from the effects of natural disasters and hazards events. The HMP provides an explanation of prevalent hazards within the County and how hazards may affect the County and

[1] "Leapfrog development" describes the construction of new development at a distance from existing developed areas, with undeveloped land between the existing and new development.

participating cities and special districts differently based upon proximities to natural hazards. The HMP also identifies risks to vulnerable assets, both people and property. Most importantly, the mitigation strategy presented in the HMP responds to the identified vulnerabilities within each community and provides prescriptions or actions to achieve the greatest risk reduction based upon available resources.

The City of American Canyon (Resolution No. 2020-44) and the American Canyon Fire Protection District adopted the HMP on June 2, 2020 (Resolution No. 2020-08). The HMP includes an Annex that details the hazard mitigation planning elements specific to the City of American Canyon. The Annex identifies that American Canyon is required to update building codes to meet the minimum standards to those required in the California Building Code last updated in 2019, which reduce risk from wildfire. Chapter 16.02 of the American Canyon Municipal Code adopts the 2019 California Building Code.

Sonoma-Lake-Napa Unit Strategic Fire Plan

The CalFire Strategic Fire Plan for the Sonoma-Lake-Napa Unit, last updated in 2020, applies to Napa County as well as neighboring Sonoma and Lake counties. This plan documents an assessment of wildfire hazards in the Sonoma-Lake-Napa Unit and identifies strategic targets to minimize fire risks, such as fire prevention and vegetation management.

American Canyon Fire Protection District Long-Range Master Plan

The ACFPD Long-Range Master Plan, (LRMP) guides the efficient future growth and development of the Fire District to provide the community of American Canyon with the highest possible level of service balanced with long term financial sustainability. Adopted in October 2022, (Resolution 2022-26) the LRMP identifies recommendations to improve long-range planning and delivery of fire and emergency services to the community (ACFPD 2022b).

The Plan recommendations relate to operations, procedures, and community involvement, to deliver desired levels of service at the most efficient cost. To maintain long-range service levels, the LRMP recommends construction of a new relocated Fire Station 211.

American Canyon Municipal Code

Chapter 8.08 of the American Canyon Municipal Code contains ordinances relating to fire regulations including fire protection district regulations and the authority of the designated fire chief to enforce the Uniform Fire Code within city limits.

Section 18.40.120 of the American Canyon Municipal Code requires that all utilities be installed underground in accordance with the provisions of the American Canyon Municipal Code. It also requires that all underground utilities be installed before preparation of subgrade for paving or any other site improvements that may affect the orderly installation of the underground utilities.

Ordinance 2022-02

The ACFPD Board adopted the most recent 2022 California Fire Code under Ordinance No. 2022-02. Section 4904 of the California Fire Code calls for a fire protection plan that addresses water supply, access, building ignition and fire-resistance factors, fire protection systems and equipment, defensible space, and vegetation management for any new residential building within a wildland-urban interface fire area.

City of American Canyon General Plan

The City of American Canyon General Plan sets forth the following goals relevant to wildfire:

Goal 6A: Maintain a high level of fire protection and emergency services to City/District businesses and residents.

Objective 6.3: Ensure that the Fire District's facility, manpower and equipment needs keep pace with the City's growth.

> **Policy 6.3.1**: Require that City planning staff work closely with Fire District officials to ensure that fire facilities and personnel are expanded commensurably to serve the needs of the City's growing population and development base.
>
> **Policy 6.3.2**: Identify possible locations on the Land Use Map for a future fire station. These locations should be optimally sited to maintain adequate response times to all City and District residents in addition to being based on growth patterns.
>
> **Policy 6.3.3**: Continue to respond to 90% of all calls within five minutes or less.

Objective 6.4: Utilize proactive measures to ensure protection of life and property of City and District residents and to maximize use of available resources.

4.18.3 Impact Analysis

a. Methodology and Thresholds of Significance

Significance Thresholds

Based on Appendix G of the *CEQA Guidelines* a project may be deemed to have a significant impact on wildfire if it would:

1. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, substantially impair an adopted emergency response plan or emergency evacuation plan
2. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire
3. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment
4. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes
5. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires

Methodology

The assessment of impacts related to wildfire hazards and risks were evaluated using FHSZ mapping for Napa County, aerial imagery, and topographic mapping. Additionally, weather patterns related

to prevailing winds and precipitation trends were evaluated as they relate to the spread and magnitude of wildfire.

In addition, on October 10, 2022, the State's Office of the Attorney General issued guidance for analyzing wildfire impacts in a document titled *Best Practices for Analyzing and Mitigating Wildfire Impacts of Development Projects under the California Environmental Quality Act* (State's Office of the Attorney General 2022). The analysis in this section used this guidance from the State's Office of the Attorney General. This analysis used the following guidance from State's Office of the Attorney General in considering the potential impacts of the project.

- Project Density. Project density influences how likely a fire is to start or spread, and how likely it is that the development and its occupants will be in danger when a fire starts.
- Project Location: Project placement in the landscape relative to fire history, topography, and wind patterns also influences wildfire risk.
- Water Supply and Infrastructure: The analysis should consider the adequacy of water supplies and infrastructure to address firefighting within the project site.
- Evacuation and Emergency Access: Local governments should consider placing developments close to existing road and evacuation infrastructure, and where appropriate, constructing additional roads to facilitate evacuations.
- Fire Hardening Structures: Home hardening has been shown to be an extremely effective measure for preventing structure loss during a wildfire. Local governments should require developers to upgrade building materials and use installation techniques to increase the development's resistance to heat, flames, and embers beyond what is required in applicable building codes.

b. Project Impacts and Mitigation Measures

Threshold 1:	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Impact WF-1 THE PROJECT WOULD NOT IMPAIR AN EMERGENCY RESPONSE PLAN AND IMPACTS WOULD BE LESS THAN SIGNIFICANT.

One parcel of the project east of the railroad line, pre-zoned as Town Center is within an LRA with a moderate fire risk. The project site is not located in a designated High FHSZ or Very High FHSZ (CalFire 2022d).

The Napa County's Emergency Operations Plan (EOP) provides a framework for Napa County to use in performing emergency functions before, during, and after an emergency event (County of Napa 2020). The EOP aims to protect and preserve life, property, and the environment in Napa County, as well as the City. The project would not conflict with this plan and would not impair evacuation, as described in detail below.

The City of American Canyon has identified evacuation procedures in the event of a natural disaster, including a wildfire. During an emergency, individuals would receive notifications from emergency sirens, alarms, or local radio stations. In addition, the City has partnered with the Napa County Office of Emergency Services to provide residents with official evacuation order notifications supported by Zonehaven, a California-based company under contract with Napa County thanks to funding from the Napa Valley Community Foundation. Future development on the project site is

located in evacuation zone NPA-E257 (City of American Canyon 2022). The City of American Canyon identifies the following three different evacuation alerts that would be provided to residents and employees in the City of American Canyon:

- Evacuation Advisory: This is a precautionary notice designed to give residents time to prepare for a possible evacuation.
- Voluntary Evacuation: This is a notice where people are strongly urged to leave the area and if a person chooses to remain, they should be prepared to take action immediately if danger approaches.
- Mandatory Evacuation: This is a notice where danger is imminent and a person should find their emergency supply kit and leave the area immediately.

The roadway that would primarily be used for evacuation in the event of a wildfire would be SR 29. Future development on the project site would include streets to access the site, as well as to connect to Paoli Loop Road and the future Newell Drive Extension, which would provide access to SR 29. The City would review and approve future projects to ensure that emergency access meets City standards. Development facilitated by the project, as well as all development in the city, must comply with road standards, and are reviewed by the American Canyon Fire Protection District to ensure development would not interfere with evacuation routes or impede the effectiveness of evacuation plans. In addition, the project would include a new roadway, the Newell Drive Extension, which would provide an additional roadway for evacuation.

Because the risk for a wildfire is moderate, because the City would review the project to ensure that emergency access meets City standard, because the project site is located near a roadway that can be used for evacuation, and because the project would add a new roadway that would provide another route for evacuation, impacts related to impairing an adopted emergency response plan or emergency evacuation plan would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 2:	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?
Threshold 5:	Would the proposed project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Impact WF-2 THE PROJECT COULD EXPOSE EMPLOYEES AND STRUCTURES TO WILDFIRE RISK; HOWEVER, WILDFIRE RISKS WOULD BE REDUCED WITH MITIGATION AND IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION.

Once annexed, the project site would be located on LRA lands. One parcel east of the railroad lines is classified as a moderate fire risk. In addition, the project site is adjacent to areas within an SRA with a moderate fire risk. The project would have multiple connections to Newell Drive, Paoli Loop,

and SR-29. As such, adequate emergency response and evacuation routes would be available in the event of an emergency.

Wildfire risk in American Canyon is generally concentrated on the hillside area east of the City. This area is largely undeveloped and contains large tracts of vegetation cover that can act as fire fuel. This area is also adjacent to large areas of vegetation cover and open space outside the City limits, which further increases the potential for wildfires. To the west of the project site, there are existing developed areas. To the north, south, and east of the project site, there are undeveloped areas, including agricultural areas. Beyond the agricultural areas to the east of the project site are hills with vegetation that could act as fuel for wildfires. A total of 526 acres of land burned in 2019 during a wildfire known as the American Fire incident (CalFire 2019; ACFPD 2019). This fire was located east of the City, approximately 1.2 miles from where future development on the project site is proposed.

Prevailing winds in American Canyon generally blow from the west during the summer months, which is typically fire season, moving west to east across the City (Western Regional Climate Center 2022). Therefore, the prevailing winds would move wildfire in the hillside area and the related smoke and air pollutants, eastward, away from the urbanized areas of the City. Additionally, fire tends to burn and spread uphill, and the hillside area generally slopes uphill toward the east, away from the developed areas of the City. The topography of the annexation area is relatively flat with hills to the east (USGS 2022). Given prevailing wind patterns, it is likely that a fire would move away from the project site.

Construction of the project would use equipment with combustion engines, which are known to create fires. As such, there is a potential wildfire risk, especially during dry months, that could result in a potential significant impact. Therefore, Mitigation Measure WF-1 would be required to reduce wildfire risk from construction activities.

The project site is in proximity to agricultural and undeveloped areas with flammable vegetation. As such, operation of future development from the project could result in potentially significant wildfire impacts, including exposure of people to pollutant concentrations from a wildfire or a significant risk from a wildfire.

New structures would be constructed following the current fire and building codes and safety standards. Construction of future development would be subject to the California Fire Code, which includes safety measures to minimize the threat of fire, including ignition-resistant construction with exterior walls of noncombustible or ignition resistant material from the surface of the ground to the roof system and sealing any gaps around doors, windows, eaves and vents to prevent intrusion by flame or embers. In addition, American Canyon Municipal Code Section 16.02.130 requires installation of fully automatic fire sprinkler systems for new buildings. The Board of Forestry, via California Code of Regulations Title 14, sets forth the minimum development standards for emergency access, fuel modification, setback, signage, and water supply, which help prevent loss of structures and life by reducing wildfire hazards. These codes and regulations would reduce the risk of loss, injury, or death from wildfire for new developments facilitated by the project. In addition, any electrical lines associated with future development would be undergrounded, pursuant to Section 18.40.120 of the American Canyon Municipal Code.

Due to the moderate wildfire risk and the history of wildfires in the area, further mitigation would be required to address risks from wildfire. Implementation of Mitigation Measure WF-2 would ensure that there is proper water; implementation of Mitigation Measure WF-3 would require future development to use construction methods and materials that would harden the proposed

residences from future wildfires; and implementation of Mitigation Measure WF-4 would require use of fire-resistant vegetation for landscaping.

Mitigation Measures

WF-1 Wildfire Risk Reduction During Construction

Prior to issuance of a grading or building permit, whichever occurs first, the applicant shall submit documentation that they will implement the following measures to reduce risk of loss, injury, or death from wildfire during construction:

1. Construction equipment powered by internal combustion engines shall be equipped with spark arresters. The spark arresters shall be maintained pursuant to manufacturer recommendations to ensure adequate performance.
2. Certain project construction activities with potential to ignite wildfires during red-flag warnings issued by the National Weather Service for the project site location shall be prohibited. Example activities that shall be prohibited during red-flag warnings include welding and grinding outside of enclosed buildings.
3. Fire extinguishers shall be required to be onsite during construction. Fire extinguishers shall be maintained to function according to manufacturer specifications. Construction personnel shall receive training on the proper methods of using a fire extinguisher.

WF-2 Fire Suppression Requirements

Prior to issuance of improvement plans, the applicant shall submit plans that demonstrate all fire hydrants on the project site satisfy the Fire District's minimum fire flow requirements.

WF-3 California Building Code Chapter 7A Compliance

Prior to issuance of a building permit, the applicant shall submit plans that demonstrate compliance with Chapter 7A of the California Building Code.

WF-4 Fire Resistant Vegetation and Landscaping

Prior to issuance of a building permit, the applicant shall submit landscape plans prepared by a registered Landscape Architect that are consistent with applicable Building and Fire Codes at the time the building permit is issued.

Significance After Mitigation

With implementation of Mitigation Measures WF-1 through WF-4 the risk of loss of structures and the risk of injury or death due to wildfires would be reduced. These measures would make structures more fire resistant and less vulnerable to loss in the event of a wildfire. These mitigation measures would also reduce the potential for construction to inadvertently ignite a wildfire and require the use of fire-resistant native vegetation. Given the moderate risk for wildfires at the project site and that mitigation would be implemented to reduce the risk, impacts would be less than significant with mitigation.

Threshold 3:	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Impact WF-3 THE PROJECT WOULD INCLUDE THE INSTALLATION OF UTILITIES AND A ROADWAY EXTENSION (NEWELL DRIVE EXTENSION). HOWEVER, IMPACTS WOULD BE LESS THAN SIGNIFICANT BECAUSE THE NEWELL DRIVE EXTENSION WOULD ALLOW FOR SIMULTANEOUS EGRESS AND INGRESS DURING AN EVACUATION, WHICH WOULD NOT EXACERBATE A FIRE RISK.

As discussed in Section 4.17, *Utilities and Service Systems*, the project would require utility connections to existing utilities. The only utility that poses a potential wildfire risk are electrical lines; however, any electrical lines associated with future development would be undergrounded, pursuant to Section 18.40.120 of the American Canyon Municipal Code. As such, the project would not exacerbate fire risk from the installation of electrical lines. Furthermore, the project would extend Newell Drive along the northern portion of the project site. The Newell Drive extension would provide egress in the case of a wildfire or other emergency. Newell Drive would be designed in such a way to allow for simultaneous egress and ingress during an evacuation which would not exacerbate a fire risk.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

Threshold 4:	If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Impact WF-4 THE PROJECT SITE IS RELATIVELY FLAT AND NOT DOWNSLOPE FROM A HILLSIDE THAT COULD RESULT IN A LANDSLIDE FOLLOWING A WILDFIRE. THERE WOULD BE ADEQUATE DRAINAGE ON THE PROJECT SITE TO PREVENT FLOODING. WILDFIRE RISKS FROM FLOODING OR LANDSLIDES WOULD BE LESS THAN SIGNIFICANT.

The project site is located on LRA lands with one parcel east of the railroad classified as having a moderate fire risk. In addition, the project site is adjacent to areas within an SRA with a moderate fire risk. The project site is not on lands classified as having a high or very high fire hazard risk. Topography in the project site is relatively flat with hills to the east.

Severe wildfires damage the forest or shrub canopy, the plants below, as well as the soil. In general, this can result in increased runoff after intense rainfall, which can put residences and other structures below a burned area at risk of localized floods and landslides. The project site is mostly flat. Vegetative wildfire fuels are currently present in the agricultural areas to the north and east of the project site. The nearest slope that may result in a landslide is approximately 0.5 mile to the east. Therefore, the project site is far enough from the slope and would not be impacted from a landslide. Additionally, as discussed in Section 4.10, *Hydrology and Water Quality* of the Draft EIR, the project site would not be in a designated flood zone. Furthermore, future projects would be

required to develop a Stormwater Control Plan, which would further minimize adverse impacts of flooding following a wildfire. The project site's flat grade, distance from any hillside, and adequate drainage would prevent exposure of people or residences to downslope landslides and flooding. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation measures would be required.

Significance After Mitigation

Impacts would be less than significant without mitigation.

4.18.4 Cumulative Impacts

The geographic scope for cumulative wildfire impacts is the areas surrounding the project site, including the City and unincorporated Napa County. This geographic scope is appropriate for wildfire because wildfires can cause impacts to large areas.

Development that is considered part of the cumulative analysis include projects involving primarily residential, mixed-use, commercial, and industrial uses near the project site. Cumulative development in the project vicinity could contribute to increased wildfire and evacuation impacts. Together, cumulative projects cover a substantial area, primarily within or along the edges of previously developed areas. Cumulative impacts to wildfire could be potentially significant by providing additional fuel for wildfire.

However, development of the project site would convert existing non-native vegetation to industrial and commercial uses that are less susceptible to wildfire. In addition, it should be noted that only one parcel the project site is in an area that is identified as having a moderate fire risk. Project development and infrastructure would be subject to statewide standards for fire safety in the California Fire Code. Additionally, Mitigation Measures WF-1 through WF-4 would reduce wildfire impacts of the project. The project would also include the Newell Drive Extension, which would improve emergency evacuation for the City and the County, if a wildfire to occur. Overall, due to the following, the project would have a less than cumulatively considerable contribution to a cumulative wildfire impact:

- The project site is in a low wildfire risk, except for one parcel in a moderate wildfire risk.
- The project would replace existing wildfire fuels with urban, less flammable development.
- The project would extend Newell Drive, which would provide an additional emergency evacuation route.
- The project would implement the California Fire Code, Napa County HMP, and Mitigation Measures in this EIR.

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4.19 Effects Found Not to be Significant

During evaluation of the project, certain impact areas included in the California Environmental Quality Act (CEQA) Appendix G checklist were found to have a less than significant impact or no impact. As allowed under CEQA Guidelines Section 15128, this section discusses why impacts to these environmental topics were determined to have no impact and therefore are not discussed in detail in the Environmental Impact Report (EIR) as individual sections.

4.19.1 Mineral Resources

Would the project:

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

There are no mineral resources, existing mines, major mineral deposits, or critical minerals within the project site (United States Geological Survey 2022). According to the City's current General Plan, there are no known mineral resources in economically viable quantities within the City's Planning Area (City of American Canyon 1994). According to the State Department of Conservation, Division of Mine Reclamation, there are three quarries designated as active within Napa County (Department of Conservation 2022). However, none of the quarries are within the project vicinity. The quarry nearest to the project site is the Napa Quarry and it is located approximately 4.5 miles north. There are no active mineral extraction operations on the project site. Therefore, no impacts to mineral resources would occur.

4.19.2 Public Services (Schools)

Setting

Napa Valley Unified School District (NVUSD) provides elementary school (Kindergarten through 12th grade), Transitional Kindergarten, independent study, and one adult education program that serve the residents of the City. There are 27 schools in NVUSD, five of which are in the City: American Canyon High, American Canyon Middle, Canyon Oaks Elementary, Donaldson Way Elementary, and Napa Junction Elementary (National Center for Education Statistics [NCES] 2022a). Table 4.19-1 identifies the enrollments and staffing for the 2020-2021 school year for the schools in American Canyon. Table 4.19-2 shows enrollment trends for these five schools. As shown in Table 4.14-3, enrollment at all middle and elementary schools has decreased and enrollment at American Canyon High school has increased between the 2017-2018 and 2020-2021 school years.

Table 4.19-1 2020-2021 Enrollment for NVUSD Schools in American Canyon

School Name	Grades	Enrollment
American Canyon High	9-12	1,707
American Canyon Middle	6-8	1,011
Canyon Oaks Elementary	K-5	674
Donaldson Way Elementary	K-5	524
Napa Junction Elementary	K-5	420

"K" = Kindergarten

Source: NCES 2022b, 2022c, 2022d, 2022e, 2022f

Table 4.19-2 Enrollment Trends for NVUSD Schools in American Canyon

School Name	2017-2018	2018-2019	2019-2020	2020-2021	Percent Change 2017-2018 to 2020-2021
American Canyon High	1,572	1,617	1,670	1,707	8.6%
American Canyon Middle	1,041	1,013	1,025	1,011	-2.9%
Canyon Oaks Elementary	682	682	681	674	-1.2%
Donaldson Way Elementary	602	591	574	524	-13.0%
Napa Junction Elementary	446	409	417	420	-5.8%

Source: California Department of Education 2022; NCES 2022b, 2022c, 2022d, 2022e, 2022f

Regulatory Setting

California Code of Regulations

The California Code of Regulations, Title 5 Education Code, governs all aspects of education within the State. California State Assembly Bill 2926 (AB 2926) – School Facilities Act of 1986 – was enacted by the State of California in 1986 and added to the California Government Code (Section 65995). It authorizes school districts to collect development fees, based on demonstrated need, and generate revenue for school districts for capital acquisitions and improvements. It also established that the maximum fees which may be collected under this and any other school fee authorization are $1.50 per square foot for residential development and $0.25 per square foot for commercial and industrial development. AB 2926 was expanded and revised in 1987 through the passage of AB 1600, which added Section 66000 et seq. of the Government code. Under this statute, payment of statutory fees by developers serves as total mitigation under CEQA to satisfy the impact of development on school facilities. However, subsequent legislative actions have alternatively expanded and contracted the limits placed on school fees by AB 2926.

California Senate Bill 50

As part of the further refinement of the legislation enacted under AB 2926, the passage of SB 50 in 1998 defined the Needs Analysis process in government Code Sections 65995.5-65998. Under the provisions of SB 50, school districts may collect fees to offset the costs associated with increasing school capacity as a result of development. SB 50 generally provides for a 50/50 State and local school facilities match. SB 50 also provides for three levels of statutory impact fees. The application level depends on whether State funding is available; whether the school district is eligible for State

funding; and whether the school district meets certain additional criteria involving bonding capacity, year-round schools, and the percentage of moveable classrooms in use.

California Government Code sections 65995-65998 sets forth provisions to implement SB 50. Specifically, in accordance with section 65995(h), the payment of statutory fees is "deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization…on the provision of adequate school facilities." The school district is responsible for implementing the specific methods for mitigating school impacts under the Government Code.

Pursuant to Government Code section 65995(i), "A State or local agency may not deny or refuse to approve a legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in section 56021 or 56073 on the basis of a person's refusal to provide school facilities mitigation that exceeds the amounts authorized pursuant to this section or pursuant to section 65995.5 or 65995.7, as applicable."

California Education Code section 17620(a)(1) states that the governing board of any school district is authorized to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities. NVUSD has developed an impact fee schedule with requires a payment of $0.66 per square foot of commercial and industrial development.

City of American Canyon General Plan

The City's Public Services and Facilities Element of the General Plan address the following goal related to schools:

Goal 6: Promote a high level of education quality for the City's residents.

Impact Analysis

Would the project:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The project would introduce new commercial, industrial, and town-center uses into the area. The project is not expected to induce substantial residential population growth since residences are not proposed as part of the project. Thus, the project would not substantially increase the number of school-aged children in American Canyon. To offset a future project's potential impact to schools, Government Code 65995 (b) establishes the base amount of allowable developer fees a school district can collect from development projects located within its boundaries. The fees obtained by NVUSD are used to maintain the desired school capacity and the maintenance and/or development of new school facilities. Prior to issuance of a building permit, the applicant would be required to pay the NVUSD school impact fee.

Pursuant to Section 65995 (3)(h) of the California Government Code (Senate Bill 50, chaptered August 27, 1998), the payment of statutory fees "is deemed to be full and complete mitigation of

the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization." Therefore, existing laws and regulations would require funding for the provision or expansion of new school facilities to offset impacts from the project and impacts would be less than significant. In addition, because cumulative projects would also be required to pay impact fees to fund school facilities, cumulative impacts would be less than significant.

5 Other CEQA Required Discussions

This section discusses other issues for which the California Environmental Quality Act (CEQA) requires analysis in addition to the specific issue areas discussed in Section 4, *Environmental Impact Analysis*. These additional issues include the project's potential to induce growth and create significant and irreversible impacts on the environment. *CEQA Guidelines* Section 15126(b) requires a discussion of the significant environmental effects which cannot be avoided if the project is implemented. The project would not result in any significant unavoidable impacts and for that reason, is not discussed further.

5.1 Growth Inducement

CEQA Guidelines Section 15126(d) requires a discussion of a project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. A project's growth inducing potential is therefore considered significant if project-induced growth could result in significant physical effects in one or more environmental issue areas.

5.1.1 Population Growth and Economic Growth

As discussed in Section 4.13, *Population and Housing*, the project would not result in any direct population growth because no residences would be developed as a part of this project. The project could, however, result in indirect population growth and economic activity due to temporary and permanent employment from commercial, industrial, and visitor-serving/hotel uses. As described in Section 4.13, *Population and Housing*, construction would be temporary and not require construction workers to permanently relocate to American Canyon, especially given the available labor force in the city and region. Likewise, the estimated 1,650 employees (see Section 2, *Project Description)* generated from new commercial, industrial, and visitor-serving/hotel uses would be drawn from the local and regional workforce. In addition, the City has planned for the addition of new residences to the City. For example, the Watson Ranch Specific Plan would add 1,253 new residences to the City (City of American Canyon 2018b) and the Broadway District Specific Plan would add 1,200 new residences to the City (City of American Canyon 2020). The project would provide future employment opportunities to future residents in American Canyon. Therefore, the project would not induce uncontrolled population or economic growth and associated environmental impacts.

5.1.2 Removal of Obstacles to Growth

Development of vacant lands within the project site would require new utility connections, including connections to water, hydrants, sewers, electricity, telecommunications, or other utilities like stormwater facilities. However, these connections would generally occur within individual project site footprints or rights-of-way that were previously disturbed, minimizing the impact of development on existing infrastructure and services. As described in Section 4.17 *Utilities and Service Systems*, development in those areas would use existing facilities and major infrastructure extensions would not occur in or be designed to serve areas beyond the sites analyzed in this

environmental impact report (EIR). Additionally, the extension of Newell Drive would not induce unplanned growth since its construction would serve approved or pending development, such as the project and Watson Ranch.

5.2 Significant Irreversible Environmental Effects

CEQA Guidelines Section 15126(c) requires a discussion of significant irreversible environmental changes that would be involved in the project, should the project be implemented. This section addresses non-renewable resources, the commitment of future generations to the proposed uses (roadway improvements), environmental accidents, and irreversible impacts associated with the project.

The project would irreversibly increase local demand for non-renewable energy resources such as petroleum products. However, increasingly efficient building design would offset this demand to some degree by reducing energy demands of the project. As described in Section 4.6, *Energy*, development facilitated by the project would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, *California's Energy Efficiency Standards for Residential and Nonresidential Buildings*) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated buildings, and the Green Building Standards Code requires solar access, natural ventilation, and stormwater capture. Consequently, development facilitated by the project would not use unusual amounts of energy or construction materials and impacts related to consumption of non-renewable and renewable resources would be less than significant. Consumption of these resources would occur with any development in the region and is not unique to the project.

Furthermore, as discussed in Section 4.9, *Hazards and Hazardous Materials*, regulatory requirements, including those from the Napa County Division of Environmental Health would minimize potential accidents related to the spills of hazardous materials. Therefore, the project would not lead to significant irreversible environmental changes due to environmental accidents.

The Newell Drive Extension would serve planned development (City of American Canyon 2018a) consistent with planning in the Circulation Element of the General Plan. In addition, the project's vehicle miles traveled (VMT) impacts would be less than significant because the project would add new employment opportunities to an area that has fewer jobs than housing, and future employees would be able to reduce their trip distance and overall VMT by working closer to their residence. Overall, impacts related to the trips associated with the project were found to be less than significant, including traffic noise impacts, operational air quality impacts, and greenhouse gas emissions.

6 Alternatives

As required by California Environmental Quality Act (CEQA) Guidelines Section 15126.6, this environmental impact report (EIR) examines a range of reasonable alternatives to the project that would attain most of the basic project objectives but would avoid or substantially lessen the significant adverse impacts.

As discussed in Section 2, *Project Description*, the project objectives are to:

1. Promote economic growth in American Canyon by attracting new industries.
2. Promote development that generates net positive tax revenues for the City by generating more in new tax revenues than are consumed by City expenditures on services provided to the development.
3. Create new employment opportunities for residents of Napa County and the surrounding region.
4. Extend Newell Drive which would augment north-south travel parallel to SR 29.
5. Improve American Canyon's jobs-housing ratio by adding new employment opportunities.
6. Further the goals and policies of the City of American Canyon General Plan by developing land contemplated to support urban development to its highest and best use.
7. Preserve the most biologically sensitive portions of the project site as open space.
8. Install circulation improvements along Paoli Loop and Watson Lane that provide efficient ingress and egress to the project while also ensuring these facilities operate at acceptable levels.
9. Promote public safety by incorporating security measures into the project design.
10. Mitigate impacts on the environment through implementation of feasible mitigation measures.

This analysis presents four alternatives, including the CEQA-required "no project" alternative, that involve changes to the project that may reduce the project-related environmental impacts identified in this EIR. These alternatives have been developed to provide a reasonable range of options that would help decision-makers and the public understand the general implications of revising or eliminating certain components of the proposed project. The following alternatives are evaluated in this EIR:

- Alternative 1: No Project
- Alternative 2: At-Grade Newell Drive Crossing
- Alternative 3: Reduced Buildout
- Alternative 4: Watson Lane Reconfiguration

Table 6-1 provides a comparison of the project characteristics and of each of the alternatives considered. More detailed descriptions of the alternatives are included in the impact analysis for each alternative. The potential environmental impacts of each alternative are compared with those of the project in Sections 6.1 through 6.4. Each alternative incorporates components of the project and relies on the existing analysis to the extent those components are covered. Each alternative was chosen to reduce at least one significant impact that was associated with the project. Alternatives 2

through 4 reduce impacts related to construction, such as air quality, energy, greenhouse gas emissions, and noise. Alternative 3 has reduced impacts related to ground disturbance as well, such as impacts on biological resources, cultural resources, geology and soils, and tribal cultural resources.

Table 6-1 Comparison of the Alternatives

	Project	Alternative 1: No Project	Alternative 2: At-Grade Newell Drive Crossing	Alternative 3: Reduced Buildout	Alternative 4: Watson Lane Reconfiguration
Total allowable non-residential area (square feet)	1,321,528	0	1,321,528	660,764	1,321,528
Change in total area compared to project (square feet)	n/a	-1,321,528	0	660,764	0
Total employees	1,650	0	1,650	825	1,650
Change in employee compared to project	n/a	-1,650	0	825	0

6.1 Alternative 1: No Project Alternative

6.1.1 Description

The No Project Alternative assumes that the project site is not annexed into the City of American Canyon and existing land uses and Napa County zoning and land use designations remain. Current uses on the sites would continue under this alternative. No additional development would be assumed on the project site nor within the city. In addition, the Newell Drive extension would not be constructed. This alternative would not accomplish any of the project objectives.

6.1.2 Impact Analysis

Under the No Project Alternative, the project site would not be annexed into the City and no buildout would occur. The No Project Alternative would avoid all the project's significant impacts as well as the need to implement any mitigation measures. While this Alternative would reduce all impacts, it would not advance any of the project objectives, including those related to promoting economic growth in American Canyon, promoting development that generates net positive tax revenues, creating employment opportunities, extended Newell Drive, and other project objectives.

6.2 Alternative 2: At-Grade Newell Drive Crossing

6.2.1 Description

Alternative 2 assumes that the Newell Drive extension would utilize an at-grade crossing instead of an overcrossing at the Union Pacific Railroad (UPRR) in the northeastern corner of the project site. An at-grade crossing would require approval from the California Public Utilities Commission pursuant to California Public Utilities Code Section 1201.

Development would occur with the same intensity and land uses as described in Section 2, *Project Description* and buildout totals would remain unchanged. Alternative 2 would increase the total

developable industrial and Town Center square footage, since an at-grade crossing requires less area, but this increase in development area would not be substantial and would not alter the programmatic analysis of this alternative. Therefore, the estimated change in square footage is not quantified.

Alternative 2 would achieve all project objectives while reducing the intensity of construction required for an overcrossing as compared to an at-grade crossing. In addition, an at-grade railroad crossing would cost less than a grade-separated crossing which makes extending Newell Drive more feasible. However, an at-grade crossing would reduce the utility of Newell Drive by halting traffic during times of railroad use. Buildout of Alternative 2 would result in the same buildout as the project (refer to Table 6-1) but would decrease construction intensity of the Newell Drive extension. Alternative 2 would accomplish all the project objectives.

6.2.2 Impact Analysis

a. Aesthetics

Alternative 2 would have slightly less aesthetics impacts because it results in less overhead roadway structure. Alternative 2 offers no change from the project with respect to the American Canyon Municipal Code and the General Plan goals and policies, which would be required for future development projects. Development would occur at a similar intensity and in the same location as the project and impacts to scenic vistas, scenic highways, and scenic quality, would remain the same under Alternative 2. Like the project, impacts to light and glare would be reduced with compliance with Mitigation Measure AES-1 and AES-2, which requires a lighting plan during construction and operation. Overall, the impacts on aesthetics would be reduced by Alternative 2. Nonetheless, Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

b. Agriculture and Forestry Resources

Neither the overcrossing for the project or the at-grade crossing for Alternative 2 would be located on agricultural or forestry lands. Alternative 2 would have the same no impact CEQA conclusion as the project.

c. Air Quality

Under Alternative 2, temporary construction-related air quality impacts from grading and construction would be reduced due to the reduced intensity of construction for an at-grade crossing compared to an overcrossing. Construction of an overcrossing requires more intensive construction activities and associated criteria air pollutants than an at-grade crossing. Nonetheless, long-term air quality impacts from building operation (energy usage, maintenance) would be the same as the project. Similarly, odor impacts from Alternative 2 would be similar to the impacts of the project. Mitigation Measures AQ-1, AQ-2, and AQ-3 would also be required under Alternative 2 to reduce construction-related criteria air pollutants impacts, as well as toxic air contaminant and particulate matter impacts. Overall, the impacts on air quality from construction would be reduced by Alternative 2. Nonetheless, Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

d. Biological Resources

Under Alternative 2, the intensity of development would remain the same as under the project but the intensity of construction for the Newell Drive overcrossing would be reduced. Ground disturbance would be reduced for Alternative 2 because an at-grade crossing would disturb less area than an overcrossing. Nonetheless, Alternative 2 would be expected to impact the same biological resources as the project (special status wildlife species, migratory birds, waters, and wildlife movement). Like the project, Mitigation Measures BIO-1 through BIO-7 would be required to reduce impacts from Alternative 2. Overall, the impacts on biological resources would be reduced by Alternative 2. Nonetheless, Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

e. Cultural Resources

Under Alternative 2, the intensity of development would remain the same as under the project but the intensity of construction for the Newell Drive overcrossing would be reduced. Ground disturbance would be reduced for Alternative 2 because an at-grade crossing would disturb less area than an overcrossing. Nonetheless, Alternative 2 would be expected to impact the same cultural resources as the project. Potential impacts to cultural resources or human remains would be addressed by the same regulations identified for the project, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and the American Canyon Municipal Code. To further strengthen protection of cultural resources, implementation of Mitigation Measures CUL-1 through CUL-5 would be required for Alternative 2. Overall, the impacts on cultural resources would be reduced by Alternative 2. Nonetheless, Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

f. Energy

Alternative 2 would use less energy than the project because construction of an at-grade crossing would require less equipment and less fuel than an overcrossing. Operational energy use would remain the same as the project and would require the implementation of Mitigation Measures GHG-4 and GHG-5, which would improve energy efficiency and require use of carbon-free electric sources. Overall, Alternative 2 would have fewer energy impacts than the project and impacts would be reduced compared to the project. Nonetheless, Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

g. Geology & Soils

Under Alternative 2, the intensity of development would remain the same as under the project but the intensity of construction for the Newell Drive overcrossing would be reduced. Ground disturbance would be reduced for Alternative 2 because an at-grade crossing would disturb less area than an overcrossing. Under Alternative 2, construction or ground disturbance for development could expose and loosen soils and result in erosion. However, this would be slightly less of an impact compared to the project because Alternative 2 would disturb less soils and would require less ground disturbance.

There would be no difference in impacts between an at-grade crossing (Alternative 2) and an overcrossing (project) for impacts related to the buildout of future development. For the same reasons as the project, impacts on geology and soils (i.e., seismic impacts, expansive soils, liquefaction, paleontological resources) from the buildout of future development under Alternative

2 would be reduced to a less than significant level after application of existing regulations (including the California Building Code and the American Canyon Municipal Code) and Mitigation Measure GEO-1, GEO-2, and HYD-1. Overall, the impacts on geology soils would be reduced by Alternative 2 due to the reduced potential for erosion. Nonetheless, Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

h. Greenhouse Gas Emissions

Under Alternative 2, temporary construction-related greenhouse gas (GHG) emissions from grading and other construction would be lower than the project since an at-grade crossing would require a shorter construction duration. However, Alternative 2 would marginally increase GHG emissions from halted vehicles idling during railroad use at the crossing.

Long-term impacts from building operation (energy use, maintenance, and traffic) would be the same as the project. Like the project, Alternative 2 would require compliance with Mitigation Measures GHG-1 through GHG-5, which would require the implementation of GHG reduction measures. Overall, the impacts on GHG emissions would be reduced by Alternative 2 due to less intense construction. Nonetheless, Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

i. Hazards and Hazardous Materials

There would be no difference in impacts between an at-grade crossing (Alternative 2) and an overcrossing (project) for impacts related to the transport, storage, and use of hazardous materials; hazards from existing contamination; and conflicts with an airport land use compatibility plan. Under Alternative 2, the transport, storage, and use of hazardous materials during construction and operation, such as paints and solvents, would be required to comply with existing hazardous material regulations, similar to the project. Sites containing existing or potential contamination would continue to require remediation and compliance with State and local regulations, as well as Mitigation Measure HAZ-1. Development facilitated by Alternative 2 would not result in a safety hazard for people residing or working in the area because development would occur in compliance with the Napa County Airport Land Use Compatibility Plan.

Alternative 2 evacuation and emergency response times would increase when emergency or vehicles evacuating during an emergency wait at an at-grade crossing for a train to cross Newell Drive. The American Canyon police and fire station are located south of the project site off Donaldson Way. If a train is crossing Newell Drive, responders from the police and fire station would be able to access the portion of the project site west of the railroad tracks, without having to cross the railroad tracks, using SR 29, Paoli Loop Road, Watson Lane, and the portion of the proposed Newell Drive located west of the railroad crossing. In the future, when Newell Drive is extended as part of the Watson Ranch Specific Plan, responders from the police and fire station would be able to access the portion of the project site east of the railroad tracks using Donaldson Way and the extended Newell Drive. In addition, the wait times from a railroad crossing would be relatively short. As such, while Alternative 2 would have greater impacts on hazards due to its impacts on emergency access, Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

j. Hydrology and Water Quality

There would be no difference in impacts on hydrology and water quality between an at-grade crossing (Alternative 2) and an overcrossing (project). Like the project, Alternative 2 would be

required to comply to the same regulations related to hydrology and water quality and would also require the implementation of Mitigation Measures HYD-1 and HYD-2, which would require the implementation of a Storm Water Pollution Prevention Plan and Stormwater Control Plan. Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

k. Land Use and Planning

There would be no difference in impacts on land use and planning between an at-grade crossing (Alternative 2) and an overcrossing (project). Neither the at-grade crossing nor the overcrossing would divide an established community. In addition, there would be no substantial differences in inconsistencies with established plans between an at-grade crossing and overcrossing. Alternative 2 would have the same less than significant CEQA conclusion as the project.

l. Noise

Alternative 2 would result in temporary construction related noise and long-term operational noise. Short-term noise would be reduced for Alternative 2 compared to the project because the at-grade crossing would require less intense construction. For example, the at-grade crossing would not require pile driving. Alternative 2 would, therefore, reduce construction noise compared to the project. Due to the distance from the nearest sensitive receiver to the at-grade crossing (850 feet) and given that pile driving would not occur for Alternative 2, construction noise impacts would be less than significant and would not require the implementation of Mitigation Measure NOI-2. The impacts from construction of the future buildings would, however, be the same as the project and would require the implementation of Mitigation Measure NOI-1. Long-term noise for Alternative 2 would be the same as the project because both would include the same buildout and the same total increase in vehicle trips and because there would be no substantial difference in noise between an at-grade crossing and overcrossing. Like the project, Alternative 2 would require the implementation of Mitigation Measure NOI-3 to reduce potential operational noise impacts from stationary sources. Alternative 2 would result in less construction noise than the project and would result in less than significant impacts after mitigation.

m. Population and Housing

There would be no difference in impacts on population and housing between an at-grade crossing (Alternative 2) and an overcrossing (project). Like the project, Alternative 2 would not induce substantial population growth or displace substantial people or housing. Alternative 2 would have the same less than significant CEQA conclusion as the project.

n. Public Services and Recreation

Alternative 2 would result in the same emergency calls rate within the city and the same demand for schools, parks, libraries, recreational facilities, or other public services compared to the project. Alternative 2 would have the same impacts on public services and recreation as the project because it would result in the same magnitude of development.

Alternative 2 would have a greater impact on response times for police and fire services than the project overcrossing because police and fire vehicles would need to wait at an at-grade crossing when a train crosses Newell Drive. While police and fire vehicles would have to wait at the at-grade crossing, this would only occur for a short time and they could use alternative routes. Alternative 2

would have slightly greater impacts on public services but would have the same less than significant with mitigation CEQA conclusion as the project.

o. Transportation

There would be no difference in impacts on conflicts with policies or ordinances addressing the circulation system of VMT between an at-grade crossing (Alternative 2) and an overcrossing (project). VMT would not be affected by an at-grade crossing or an overcrossing because the crossing design would not increase trip lengths or frequency which are central variables in VMT measurements.

Alternative 2 could result in greater impacts related to increased hazards due to the at-grade crossing design, as well as emergency access. Alternative 2 increases hazards and reduce emergency access due to interaction between vehicles and moving trains. Alternative 2 would be comply with existing federal and state laws governing safety for at-grade crossings, including providing railway signals to avoid vehicle, bicycle, or pedestrian collisions. In addition, while emergency vehicles would have to wait at the at-grade crossing, this would only occur for a short time, and they could use alternative routes, depending on the emergency. As such, impacts from hazards due to a design feature and emergency access would be less than significant for Alternative 2. Overall, the impacts on transportation would be greater for Alternative 2. Nonetheless, Alternative 2 would have the same less than significant CEQA conclusion as the project.

p. Tribal Cultural Resources

Under Alternative 2, the intensity of development would remain the same as under the project but the intensity of construction for the Newell Drive overcrossing would be reduced. Ground disturbance would be reduced for Alternative 2 because an at-grade crossing would disturb less area than an overcrossing. Potential impacts on tribal cultural resources would be addressed by the same existing regulations identified for the project, as well as Mitigation Measures CUL-2, through CUL-5. Overall, the impacts on tribal cultural resources would be reduced by Alternative 2. Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

q. Utilities and Service Systems

There would be no difference in impacts on utilities and service systems between an at-grade crossing (Alternative 2) and an overcrossing (project). Alternative 2 would have the same demand on utilities as the project. Alternative 2 would have the same less than significant CEQA conclusion as the project.

r. Wildfire

Alternative 2 would increase emergency response times in the event of a wildfire because emergency vehicles and evacuating vehicles must wait at an at-grade crossing during a train crossing Newell Drive, whereas these vehicles would not have to wait when using the overcrossing for the project. While emergency vehicles would have to wait at the at-grade crossing, this would only occur for a short time and they could use alternative routes, depending on the emergency. Alternative 2 would have slightly greater impacts on wildfire, due to its impacts on emergency access. After application of existing regulations and Mitigation Measures WF-1 through WF-4, Alternative 2 would have the same less than significant with mitigation CEQA conclusion as the project.

6.3 Alternative 3: Reduced Buildout

6.3.1 Description

Alternative 3 assumes that buildout would decrease from 80 percent of the project site area to 40 percent. Alternative 3 estimated maximum buildout is shown in Table 6-2. Alternative 3 would reduce environmental impacts due to reduced construction. Alternative 3 would generate fewer employees than the project (refer to Table 6-1). Alternative 3 would configure Newell Drive the same as the project (i.e., an overcrossing over the UPRR). Alternative 3 would accomplish all the project objectives but to a lesser extent than the project.

Table 6-2 Estimated Maximum Buildout for Alternative 3

Land Use	Area (Square Feet)
Commercial	247,471
Industrial	348,444
Visitor-Serving/Hotel	94,849

6.3.2 Impact Analysis

a. Aesthetics

Alternative 3 would have slightly less aesthetics impacts because half the land area would be urbanized compared to the Project. Alternative 2 offers no change from the project with respect to the American Canyon Municipal Code and the General Plan goals and policies, which would be required for future development projects. Like the project, impacts to light and glare would be reduced with compliance with Mitigation Measure AES-1 and AES-2, which requires a lighting plan during construction and operation. Overall, the impacts on aesthetics would be reduced by Alternative 3. Nonetheless, Alternative 3 would have the same less than significant with mitigation CEQA conclusion as the project.

b. Agriculture and Forestry Resources

Neither Alternative 3 or the project site would be located on agricultural or forestry lands. Alternative 3 would have the same no impact CEQA conclusion as the project.

c. Air Quality

Alternative 3 would result in temporary construction related air quality emissions and long-term air quality emissions from operation. Short-term emissions would be reduced for Alternative 3 compared to the project because the reduced buildout would require less intense construction. In addition, long-term emissions would be reduced for Alternative 3 compared to the project because the reduced buildout would result in fewer total vehicle trips. In addition, Alternative 3 would have fewer potential sources of toxic air contaminants. Mitigation Measures AQ-1, AQ-2, and AQ-3 would also be required under Alternative 3 to reduce air quality impacts, like the project. While Alternative 3 would result in lower air quality emissions than the project, Alternative 3 would have the less than significant with mitigation CEQA conclusion as the project.

d. Biological Resources

Under Alternative 3, the intensity of development would be lower, compared to the project and the intensity of construction, including ground disturbance would be reduced for Alternative 3. Nonetheless, Alternative 3 would be expected to impact the same biological resources as the project (special status wildlife species, migratory birds, waters, and wildlife movement). Like the project, Mitigation Measures BIO-1 through BIO-7 would be required to reduce impacts from Alternative 3. Overall, the impacts on biological resources would be reduced by Alternative 3. Nonetheless, Alternative 3 would have the same less than significant with mitigation CEQA conclusion as the project.

e. Cultural Resources

Under Alternative 3, the intensity of development would be lower, compared to the project and the intensity of construction, including ground disturbance would be reduced for Alternative 3. Nonetheless, Alternative 3 would be expected to impact the same cultural resources as the project. Potential impacts to cultural resources or human remains would be addressed by the same regulations identified for the project, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and the American Canyon Municipal Code. To further strengthen protection of cultural resources, implementation of Mitigation Measures CUL-1 through CUL-5 would be required for Alternative 3. Overall, the impacts on cultural resources would be reduced by Alternative 3. Nonetheless, Alternative 3 would have the same less than significant with mitigation CEQA conclusion as the project.

f. Energy

Because Alternative 3 would be developed at the half of the intensity as the project, energy use for construction and operation of this alternative would be lower. Alternative 3 would comply with the same regulations identified for the project and would also require the implementation of Mitigation Measures GHG-4 and GHG-5, which would improve energy efficiency and require use of carbon-free electric sources. Overall, Alternative 3 would have a reduced energy impact, compared to the project. Nonetheless, Alternative 3 would have the same less than significant with mitigation CEQA conclusion as the project.

g. Geology & Soils

Under Alternative 3, the intensity of development would be lower, compared to the project and the intensity of construction, including ground disturbance would be reduced for Alternative 3. Under Alternative 3, construction or ground disturbance for development could expose and loosen soils and result in erosion. However, this would be a reduced impact compared to the project because Alternative 3 would disturb less soils and would require less ground disturbance.

There would be no difference in impacts between this reduced buildout alternative (Alternative 3) and the project for impacts related to the buildout of future development. For the same reasons as the project, impacts on geology and soils (i.e., seismic impacts, expansive soils, liquefaction, paleontological resources) from the buildout of future development under Alternative 3 would be reduced to a less than significant level after application of existing regulations (including the California Building Code and the American Canyon Municipal Code) and Mitigation Measure GEO-1, GEO-2, and HYD-1. Overall, the impacts on geology soils would be reduced by Alternative 3 due to

the reduced potential for erosion. Nonetheless, Alternative 3 would have the same less than significant with mitigation CEQA conclusion as the project.

h. Greenhouse Gas Emissions

Alternative 3 would result in temporary construction related GHG emissions and long-term GHG impacts from building operation (energy use, maintenance, and traffic). Short-term emissions would be reduced for Alternative 3 compared to the project because the reduced buildout would require less intense construction. In addition, long-term emissions would be reduced for Alternative 3 compared to the project because the reduced buildout would require less energy for the smaller buildings and would also result in fewer total vehicle trips that use fuel. Alternative 3 would comply with the same regulations and policies of the project and would also implement Mitigation Measures GHG-1 through GHG-5, which would require the implementation of GHG reduction measures. Overall, the impacts on GHG emissions would be reduced by Alternative 3 due to less intense construction and a reduced buildout. For the same reasons as the project, impacts on GHG emissions for Alternative 3 would be less than significant.

i. Hazards and Hazardous Materials

There would be no difference in impacts between Alternative 3 and the project for impacts related to the transport, storage, and use of hazardous materials; hazards from existing contamination; emergency response; and conflicts with an airport land use compatibility plan. Under Alternative 3, the transport, storage, and use of hazardous materials during construction and operation, such as paints and solvents, would be required to comply with existing hazardous material regulations, similar to the project. Sites containing existing or potential contamination would continue to require remediation and compliance with State and local regulations, as well as Mitigation Measure HAZ-1. Compliance with policies within the General Plan, the Napa County Hazard Mitigation Plan, the American Canyon Municipal Code, and applicable emergency response plans would ensure that development facilitated by Alternative 3 would not increase risk of exposure to hazardous materials and would not impair or interfere with implementation of evacuation or emergency response plans. Development facilitated by Alternative 3 would not result in a safety hazard for people residing or working in the area because development would occur in compliance with the Napa County Airport Land Use Compatibility Plan. Alternative 3 would have the same less than significant with mitigation CEQA conclusion as the project.

j. Hydrology and Water Quality

Under Alternative 3, hydrology and water quality impacts would be reduced compared to the project because Alternative 3 would reduce buildout area, which generates fewer impervious surfaces than the project. Nonetheless, Alternative 3 would be required to comply with the same regulations as the project. Potential impacts to hydrology and water quality would be addressed by complying with existing regulations, including the American Canyon Municipal Code. In addition, Alternative 3 would implement Mitigation Measures HYD-1 and HYD-2, which would require the implementation of a Storm Water Pollution Prevention Plan and Stormwater Control Plan. Overall, the impacts on hydrology and water quality from Alternative 3 would be reduced compared to the project. Nonetheless, Alternative 3 would have the same less than significant CEQA conclusion as the project.

k. Land Use and Planning

There would be no difference in impacts on land use and planning between Alternative 3 and the project. In addition, there would be no substantial differences in inconsistencies with established plans between Alternative 3 and the project. Alternative 3 would have the same less than significant CEQA conclusion as the project.

l. Noise

Alternative 3 would result in temporary construction related noise and long-term operational noise. Short-term noise would be reduced for Alternative 3 compared to the project because the reduced buildout would require less intense construction. In addition, long-term noise would be reduced for Alternative 3 compared to the project because the reduced buildout would result in fewer total vehicle trips and less operation of sources that could generate noise. Nonetheless, while Alternative 3 would result in less construction and operation noise, Alternative 3 would still require the implementation of Mitigation Measures NOI-1, NOI-2, and NOI-3. Like the project, Alternative 3 would result in less than significant noise impacts after mitigation. While Alternative 3 would result in lower noise than the project, Alternative 3 would have the same less than significant with mitigation CEQA conclusion as the project.

m. Population and Housing

There would be no difference in impacts on population and housing between Alternative 3 or the project. Like the project, Alternative 3 would not induce substantial population growth or displace substantial people or housing. Alternative 3 would have the same less than significant CEQA conclusion as the project.

n. Public Services and Recreation

Due to the reduced buildout associated with Alternative 3, this alternative would result in fewer emergency calls and a reduced demand for police services, fire services, schools, parks, libraries, or other public services compared to the project. Overall, the impacts on public services and recreations from Alternative 3 would be reduced compared to the project. Nonetheless, Alternative 3 would have the same less than significant with mitigation CEQA conclusion as the project.

o. Transportation

Alternative 3 is expected to result in similar impacts related to consistency with circulation plans, hazards due to a design feature, and emergency access. In addition, Alternative 3 would generate fewer jobs than the project due to the reduced buildout. Because there would be fewer total jobs, then there would be fewer total vehicle trips and total VMT would be less than the VMT of the project. The VMT per employee for Alternative 3 is expected to be the same as the project because employees under both the project and Alternative 3 scenario are likely to have similar travel patterns (i.e., employees would travel to work from similar origin destinations). As such, VMT impacts for Alternative 3 would be the same as the project. Overall, the impacts on transportation from Alternative 3 would be the same as the project and Alternative 3 would have the same less than significant CEQA conclusion as the project.

p. Tribal Cultural Resources

Under Alternative 3, the development area would be reduced, compared to the project and the intensity of construction, including ground disturbance would be reduced for Alternative 3. Nonetheless, Alternative 3 would be expected to impact the same tribal cultural resources as the project. Potential impacts on tribal cultural resources would be addressed by Mitigation Measures CUL-2 through CUL-5. Overall, the impacts on tribal cultural resources would be reduced by Alternative 3. Nonetheless, Alternative 3 would have the same less than significant CEQA conclusion as the project.

q. Utilities and Service Systems

Due to the reduced buildout associated with Alternative 3, this alternative would result in a reduced demand on utilities, including water, wastewater, electricity, natural gas, telecommunications, and solid waste services. Overall, the impacts on utilities and service systems from Alternative 3 would be reduced compared to the project. Nonetheless, Alternative 3 would have the same less than significant CEQA conclusion as the project.

r. Wildfire

There would be no substantial difference in impacts between Alternative 3 and the project related to wildfire because both would result in buildout at the same location. The reduced buildout associated with Alternative 3 would not substantially change the potential wildfire impacts identified for the project. For the same reasons as the project, wildfire impacts from the buildout of future development under Alternative 3 would be reduced to a less than significant level after application of existing regulations and Mitigation Measures WF-1 through WF-4. Overall, the wildfire impact from Alternative 3 would be similar to the project. Alternative 3 would have the same less than significant with mitigation CEQA conclusion as the project.

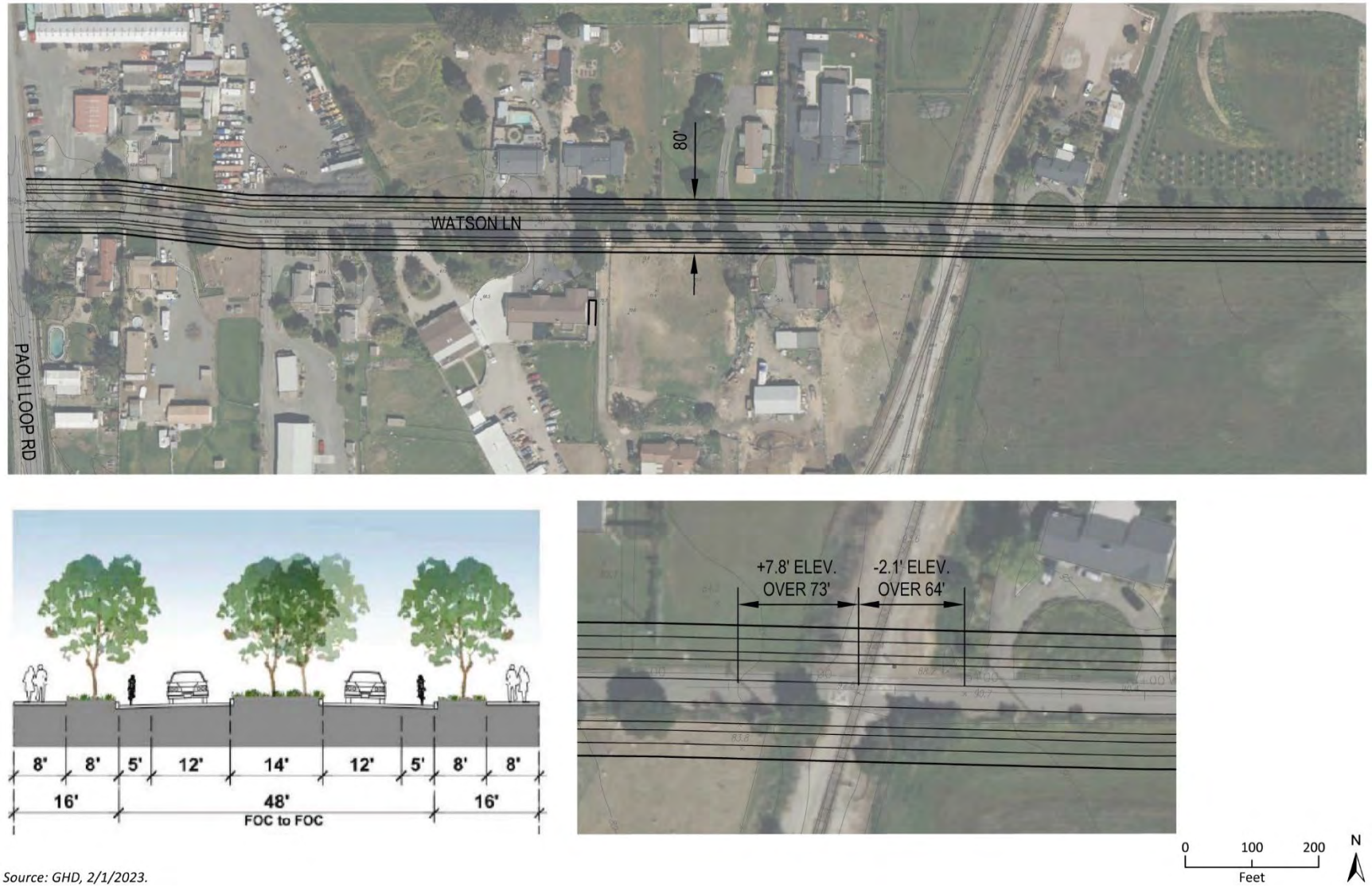
6.4 Alternative 4: Watson Lane Reconfiguration

6.4.1 Description

Alternative 4 assumes that the Newell Drive extension would not extend north of Watson Lane, and that travelers would instead utilize Watson Lane and Paoli Loop Road for travel between Newell Drive and SR 29, and between Newell Drive and the planned extension of South Kelly Road. Alternative 4 would utilize an existing at-grade crossing of the UPRR tracks on Watson Lane, instead of an overcrossing.

Under Alternative 4, the existing at-grade crossing on Watson Lane would be modernized to accommodate increased travel. Improvements would include expanding Watson Lane to meet City standards for a major collector street, consistent with the planned configuration for the proposed Newell Drive extension, which requires an 80-foot right-of-way width to accommodate two motor vehicle lanes (one per direction), bicycle lanes, sidewalks and landscape strips on both sides, with a raised center median. Figure 6-1 shows the approximate width of the right-of-way that would be anticipated along Watson Lane under Alternative 4, including a focused view of the at-grade crossing.

Figure 6-1 Configuration of Watson Lane under Alternative 4



Source: GHD, 2/1/2023.

Additional improvements near the at-grade crossing for Alternative 4 would include providing railroad crossing gates and flashers, as well as raising the elevation of Watson Lane to reduce changes in elevation near the railroad tracks. Under existing conditions, the railroad tracks are approximately 8 feet higher than the adjacent portion of Watson Lane to the west of the tracks and approximately 2 feet higher than the adjacent portion of Watson Lane to the east of the tracks, with an abrupt change in elevation on Watson Lane near the tracks. To the west, Watson Lane continues to slope downward, with an estimated 2 percent downward slope towards Paoli Loop Road. The elevation of Watson Lane would thus be raised to provide a roughly level segment within 30 feet of edge of rail in both directions, consistent with applicable guidelines, and to provide gently sloping approaches for up to approximately 500 feet to the west of the tracks, and approximately 100 feet to the east of the tracks. The total extent of potential fill to raise the elevation of Watson Lane would extend approximately 670 feet (west to east).

Development would occur with the same intensity and land uses as described in Chapter 2, *Project Description,* and buildout totals would remain unchanged. Like Alternative 2, Alternative 4 would increase the total developable industrial and Town Center square footage, since elimination of the proposed grade-separated crossing requires less area, but this increase in development area would not be substantial and would not alter the programmatic analysis of this alternative. Therefore, the estimated change in square footage is not quantified.

Alternative 4 would achieve most of the project objectives while reducing the intensity of construction required for an overcrossing as compared to an at-grade crossing. Alternative 4 would not meet the objective of extending Newell Drive. Buildout of Alternative 2 would result in the same buildout as the project (refer to Table 6-1) but would decrease construction intensity related to the Watson Lane roadway reconfiguration.

6.4.2 Impact Analysis

a. Aesthetics

Alternative 4 would have slightly less aesthetics impacts because it results in less overhead roadway structure. Alternative 4 would not require the installation of the overcrossing over the UPRR railroad tracks. Alternative 4 offers no change from the project with respect to the American Canyon Municipal Code and the General Plan goals and policies, which would be required for future development projects. Development would occur at a similar intensity and in the same location as the project and impacts to scenic vistas, scenic highways, and scenic quality, would remain the same under Alternative 4. Like the project, impacts to light and glare would be reduced with compliance with Mitigation Measure AES-1 and AES-2, which requires a lighting plan during construction and operation. Overall, the impacts on aesthetics would be reduced by Alternative 4. Nonetheless, Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

b. Agriculture and Forestry Resources

Neither the Newell Drive extension for the project or the Watson Lane reconfiguration for Alternative 4 would be located on agricultural or forestry lands. Alternative 4 would have the same no impact CEQA conclusion as the project.

c. Air Quality

Under Alternative 4, temporary construction-related air quality impacts from grading and construction would be reduced due to the reduced intensity of construction for an at-grade crossing compared to an overcrossing. Construction of an overcrossing requires more intensive construction activities and associated criteria air pollutants than an at-grade crossing. However, Alternative 4 would still require intensive construction related to the roadway expansion of Watson Lane and the importing of fill to raise the elevation along 670 feet of Watson Lane. Long-term air quality impacts from building operation (energy usage, maintenance) would be the same as the project. Similarly, odor impacts from Alternative 4 would be similar to the impacts of the project. Mitigation Measures AQ-1, AQ-2, and AQ-3 would also be required under Alternative 4 to reduce construction-related criteria air pollutants impacts, as well as toxic air contaminant and particulate matter impacts. Overall, the impacts on air quality from construction would be reduced by Alternative 4. Nonetheless, Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

d. Biological Resources

Under Alternative 4, the intensity of development would remain the same as under the project but the intensity of construction for the roadway (Watson Lane reconfiguration instead of Newell Drive extension and overcrossing) would be reduced. The widening of Watson Lane to 80 feet and the at-grade UPRR crossing, would require less ground disturbance than the proposed Newell Drive extension. Ground disturbance for the Alternative 4 roadway would occur primarily within already developed areas, would avoid the crossing of North Slough, and would not inhibit wildlife movement. Nonetheless, Alternative 4 would be expected to impact similar biological resources as the project (special status wildlife species, migratory birds, waters, and wildlife movement). Like the project, Mitigation Measures BIO-1 through BIO-7 would be required to reduce impacts from Alternative 4. Overall, the impacts on biological resources would be reduced by Alternative 4. Nonetheless, Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

e. Cultural Resources

Under Alternative 4, the intensity of development would remain the same as under the project but the intensity of construction for the roadway would be reduced. The roadway improvements for Alternative 4 would require less ground disturbance than extension of Newell Drive and construction of an overcrossing. Additionally, ground disturbance for the Alternative 4 roadway would occur primarily within already developed areas and would avoid the crossing of North Slough. Nonetheless, Alternative 4 would be expected to impact similar cultural resources as the project. Potential impacts to cultural resources or human remains would be addressed by the same regulations identified for the project, including California Health and Safety Code Section 7050.5, California Public Resources Code Section 5097.98, and the American Canyon Municipal Code. To further strengthen protection of cultural resources, implementation of Mitigation Measures CUL-1 through CUL-5 would be required for Alternative 4. Overall, the impacts on cultural resources would be reduced by Alternative 4. Nonetheless, Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

f. Energy

Alternative 4 would use less energy than the project because construction of the Alternative 4 roadway would be reduced and would require less equipment and less fuel. Operational energy use would remain the same as the project and would require the implementation of Mitigation Measures GHG-4 and GHG-5, which would improve energy efficiency and require use of carbon-free electric sources. Overall, Alternative 4 would have fewer energy impacts than the project and impacts would be reduced compared to the project. Nonetheless, Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

g. Geology & Soils

Under Alternative 4, the intensity of development would remain the same as under the project but the intensity of construction for the Alternative 4 roadway would be reduced. Ground disturbance would be reduced for Alternative 4 because an at-grade crossing would disturb less area than an overcrossing. Under Alternative 4, construction or ground disturbance for development could expose and loosen soils and result in erosion. However, this would be less of an impact compared to the project because Alternative 4 would disturb less soils and would require less ground disturbance.

There would be no difference in impacts between an at-grade crossing at Watson Lane (Alternative 4) and an overcrossing at the Newell Drive extension (project) for impacts related to the buildout of future development. For the same reasons as the project, impacts on geology and soils (i.e., seismic impacts, expansive soils, liquefaction, paleontological resources) from the buildout of future development under Alternative 4 would be reduced to a less than significant level after application of existing regulations (including the California Building Code and the American Canyon Municipal Code) and Mitigation Measure GEO-1, GEO-2, and HYD-1. Overall, the impacts on geology soils would be reduced by Alternative 4 due to the reduced potential for erosion. Nonetheless, Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

h. Greenhouse Gas Emissions

Under Alternative 4, temporary construction-related GHG emissions from grading and other construction would be lower than the project since roadway construction duration would be shorter. However, Alternative 4 would marginally increase operational GHG emissions from halted vehicles idling during railroad use at the at-grade crossing.

Long-term impacts from building operation (energy use, maintenance, and traffic) would be the same as the project. Like the project, Alternative 4 would require compliance with Mitigation Measures GHG-1 through GHG-5, which would require the implementation of GHG reduction measures. Overall, the impacts on GHG emissions would be reduced by Alternative 4 due to less intense construction. Nonetheless, Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

i. Hazards and Hazardous Materials

There would be no difference in impacts between an at-grade crossing at the Watson Lane reconfiguration (Alternative 4) and an overcrossing at the Newell Drive extension (project) for impacts related to the transport, storage, and use of hazardous materials; hazards from existing contamination; and conflicts with an airport land use compatibility plan. Under Alternative 4, the

transport, storage, and use of hazardous materials during construction and operation, such as paints and solvents, would be required to comply with existing hazardous material regulations, similar to the project. Sites containing existing or potential contamination would continue to require remediation and compliance with State and local regulations, as well as Mitigation Measure HAZ-1. Development facilitated by Alternative 4 would not result in a safety hazard for people residing or working in the area because development would occur in compliance with the Napa County Airport Land Use Compatibility Plan.

Under Alternative 4, emergency vehicles would periodically have to cross the at-grade railroad crossing at Watson Lane. There is already an existing at-grade crossing at Watson Lane; therefore, the conditions associated with Alternative 4 related to emergency vehicles crossing railroad tracks would not be substantially different compared to existing conditions. Nonetheless, compared to the project, Alternative 4 evacuation and emergency response times would be greater than the proposed overcrossing due to emergency vehicles having to potentially wait at an at-grade crossing for a train to cross Watson Lane. The American Canyon police and fire station are located south of the project site off Donaldson Way. If a train is crossing Watson Lane, responders from the police and fire station would be able to access the portion of the project site west of the railroad tracks, without having to cross the railroad tracks, using SR 29, Paoli Loop Road, and Watson Lane. In the future, when Newell Drive is extended as part of the Watson Ranch Specific Plan, responders from the police and fire station would be able to access the portion of the project site east of the railroad tracks using Donaldson Way and the extended Newell Drive. In addition, the wait times from a railroad crossing would be relatively short. As such, while Alternative 4 would have greater impacts on hazards due to its impacts on emergency access, Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

j. Hydrology and Water Quality

Alternative 4 would have slightly reduced impacts on hydrology and water quality compared to the project because Alternative 4 would avoid the roadway crossing over North Slough. Nonetheless, like the project, Alternative 4 would be required to comply to the same regulations related to hydrology and water quality and would also require the implementation of Mitigation Measures HYD-1 and HYD-2, which would require the implementation of a Storm Water Pollution Prevention Plan and Stormwater Control Plan. Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

k. Land Use and Planning

Alternative 4 would require the widening of Watson Lane to 80 feet. This roadway widening would encroach on existing private properties and would require the take of portions of impacted properties. It is expected that this roadway widening would not require the displacement of residences located along Watson Lane; however, portions of those properties (i.e., driveways, yards, or landscaped areas) would need to be taken in order to accommodate the roadway widening envisioned by Alternative. In addition, the Alternative 4 roadway configuration would be inconsistent with the City's General Plan Circulation Element, which identifies the Newell Drive Extension.

Alternative 4 is not expected to result in the displacement of any residences and Watson Lane is an existing roadway. The take of properties associated with the Alternative 4 roadway is not expected to result in the division of an established community and Alternative 4 would have the same no CEQA impact as the project. The project would result in greater conflicts with the General Plan, due

to the Alternative 4's inconsistency with the Circulation Element. Nonetheless, this conflict would not result in any additional physical impacts on the environment beyond those already identified in this analysis. As such, Alternative 4 would have the same less than significant CEQA conclusion as the project.

While the CEQA impacts would remain the same, Alternative 4 is expected to result in more land use impacts than the project due to the fact that Alternative 4 would require the take of properties.

l. Noise

Alternative 4 would result in temporary construction related noise and long-term operational noise. Long-term noise for Alternative 4 would be the same as the project because both would include the same buildout and the same total increase in vehicle trips. There would be no substantial difference in noise between an at-grade crossing at Watson Lane and an overcrossing at the Newell Drive extension. Like the project, Alternative 4 would require the implementation of Mitigation Measure NOI-3 to reduce potential operational noise impacts from stationary sources and would result in a less than significant with mitigation impact (for long-term impacts). Short-term construction noise impacts would be greater for Alternative 4 compared to the project. While Alternative 4 would result in less intense construction (i.e., Alternative 4 would not require pile driving), construction for Alternative 4 would occur closer to sensitive receivers than for the project. Residences along Watson Lane would be located adjacent to where construction for the Alternative 4 roadway would occur. Alternative 4 would implement Mitigation Measure NOI-1 to reduce construction noise. Like the project, Alternative 4 is expected to reduce construction impacts to a less than significant level after mitigation; however, due to the proximity of construction to sensitive receivers, Alternative 4 would have a greater noise impact during construction than the project.

m. Population and Housing

There would be no difference in impacts on population and housing between Alternative 4 and the project. Like the project, Alternative 4 would not induce substantial population growth or displace substantial people or housing. Alternative 4 would have the same less than significant CEQA conclusion as the project.

n. Public Services and Recreation

Alternative 4 would result in the same emergency calls rate within the city and the same demand for schools, parks, libraries, recreational facilities, or other public services compared to the project. Alternative 4 would have the same impacts on public services and recreation as the project because it would result in the same magnitude of development.

Alternative 4 would have a greater impact on response times for police and fire services than the project overcrossing because police and fire vehicles would need to wait at an at-grade crossing when a train crosses Watson Lane. While police and fire vehicles would have to wait at the at-grade crossing, this would only occur for a short time, and they could use alternative routes. Alternative 4 would have slightly greater impacts on public services but would have the same less than significant with mitigation CEQA conclusion as the project.

o. Transportation

Alternative 4 would include a reconfiguration of Watson Lane instead of the proposed Newell Drive extension. This would conflict with the City's existing General Plan Circulation Element, which

identifies the Newell Drive Extension. The project would result in greater conflicts with the General Plan, due to the Alternative 4's inconsistency with the Circulation Element. Nonetheless, this conflict would not result in any additional physical impacts on the environment beyond those already identified in this analysis. As such, Alternative 4 would have the same less than significant CEQA conclusion as the project related to consistency with plans. VMT would not be affected by an at-grade crossing or an overcrossing because the crossing design would not increase trip lengths or frequency which are central variables in VMT measurements.

Alternative 4 could result in greater impacts related to increased hazards due to the at-grade crossing design, as well as emergency access. Alternative 4 increases hazards and reduced emergency access due to interaction between vehicles and moving trains. Alternative 4 would comply with existing federal and state laws governing safety for at-grade crossings, including providing railway signals to avoid vehicle, bicycle, or pedestrian collisions. In addition, while emergency vehicles would have to wait at the at-grade crossing, this would only occur for a short time, and they could use alternative routes, depending on the emergency. As such, impacts from hazards due to a design feature and emergency access would be less than significant for Alternative 4. Overall, the impacts on transportation would be greater for Alternative 4. Nonetheless, Alternative 4 would have the same less than significant CEQA conclusion as the project.

p. Tribal Cultural Resources

Under Alternative 4, the intensity of development would remain the same as under the project but the intensity of construction for the roadway would be reduced. The roadway improvements for Alternative 4 would require less ground disturbance than extension of Newell Drive and construction of an overcrossing. Additionally, ground disturbance for the Alternative 4 roadway would occur primarily within already developed areas and would avoid the crossing of North Slough. Potential impacts on tribal cultural resources would be addressed by the same existing regulations identified for the project, as well as Mitigation Measures CUL-2, through CUL-5. Overall, the impacts on tribal cultural resources would be reduced by Alternative 4. Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

q. Utilities and Service Systems

There would be no difference in impacts on utilities and service systems between Alternative 4 and the project. Alternative 4 would have the same demand on utilities as the project. Alternative 4 would have the same less than significant CEQA conclusion as the project.

r. Wildfire

Alternative 4 would increase emergency response times in the event of a wildfire because emergency vehicles and evacuating vehicles must wait at an at-grade crossing during a train crossing Watson Lane, whereas these vehicles would not have to wait when using the overcrossing for the project. While emergency vehicles would have to wait at the at-grade crossing, this would only occur for a short time and they could use alternative routes, depending on the emergency. Alternative 4 would have slightly greater impacts on wildfire, due to its impacts on emergency access. After application of existing regulations and Mitigation Measures WF-1 through WF-4, Alternative 4 would have the same less than significant with mitigation CEQA conclusion as the project.

6.5 Alternatives Considered but Rejected

This section summarizes those alternatives considered, but ultimately rejected for inclusion in the analysis as they would not meet most of the project objectives, would not substantially reduce impacts compared to the proposed project, or were determined to be infeasible.

The City considered an alternative that would include residential development on the project site. However, this alternative would conflict with allowable uses within Zone D of the Napa County Airport Land Use Compatibility Plan, as discussed in Section 4.9, *Hazards and Hazardous Materials*. Therefore, this scenario was rejected from further consideration.

The City considered annexing the project site, but not changing land use designations, such that the northern portion designated for agriculture, as shown on Figure 2-3 in Section 2, *Project Description*, would remain in agricultural use instead of being converted to industrial uses. This alternative was rejected considering that the land had no historically been used for agriculture and surrounding land uses were already in industrial use. Additionally, this alternative would not serve the project objectives.

6.6 Environmentally Superior Alternative

CEQA requires identification of the environmentally superior alternative among the alternatives to the proposed project. The environmentally superior alternative must be an alternative that reduces some of the project's environmental impacts, regardless of the financial costs associated. Identification of the environmentally superior alternative is an informational procedure and the alternative identified as the environmentally superior alternative may not be that which best meets the goals or needs of the proposed project. Table 6-3 indicates whether each alternative's environmental impact is greater than (in red), less than (in green), or similar to that of the project for each of the issue areas studied.

Based on the analysis of alternatives in this section, the No Project Alternative is the environmentally superior alternative as it would lessen the severity of every impact of the project. However, this alternative would not meet the project objectives, including those related to facilitating the development of land planned for business park/industrial uses to its highest and best use; positively contributing to the local economy; providing the City of American Canyon with a high-quality, employment-generating industrial development; serving local and regional demand for manufacturing, logistics warehouse, and other industrial uses; and extending Newell Drive to augment north-south travel parallel to SR 29. Finally, it should be noted that the northern portions of the project site are planned for industrial use by the Napa County General Plan. Taken together with the need to extend Newell Drive, should the proposed project not advance, it would be expected that another industrial development proposal would be submitted.

If the No Project Alternative is determined to avoid or reduce more impacts than any other alternative, CEQA requires that the EIR identify an environmentally superior alternative among the other alternatives (*CEQA Guidelines* Section 15126.6[e]). Of the other alternatives evaluated in this EIR, Alternative 3 would be the environmentally superior alternative.

Second to the No Project Alternative, Alternative 3 is the environmentally superior alternative as it would reduce the severity of 12 impacts (aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hydrology and water quality, noise, public services and recreation, tribal cultural resources, and utilities and service systems) compared to the

project. Alternative 3 would meet the project objectives identified in Section 2, *Project Description*, as it would provide additional acreage for industrial uses and facilitate development of the Newell Drive extension. However, it should be noted that Alternative 3 would meet the project objectives to a reduced extent because it would provide lower buildout opportunities.

Like Alternative 3, Alternative 2 would generally result in similar or incrementally decreased environmental impacts compared to the project and meet all project objectives. Alternative 2 would reduce the severity of nine impacts (aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, noise, tribal cultural resources) due to reduced construction intensity. However Alternative 2 would increase the severity of four impacts (hazards, public services, transportation, and wildfire) due to potential conflicts between evacuating and emergency vehicles and train traffic. In addition, Alternative 2 may not be feasible depending on coordination with UPRR and the CPUC. Coordination with UPRR and the CPUC would be required for either an at-grade crossing or an overcrossing; however, both the UPRR and the CPUC prefer implementing overcrossings instead of at-grade crossings due to safety and other reasons.

In comparing the proposed project and Alternatives 2 through 4, Alternative 4 would result in the greatest environmental impacts. Alternative 4 would reduce the severity of eight impacts (aesthetics, air quality, biological resources, cultural resources, energy, geology and soils, GHG emissions, hydrology and water quality, and tribal cultural resources) due to reduced construction intensity. While the Watson Lane roadway widening for Alternative 4 would have reduced construction intensity compared to the project, the roadway widening for Alternative 4 would have a greater construction intensity compared to the at-grade crossing for Alternative 2. This is due to the fill that would be required for the Watson Lane at-grade crossing, in order to raise the elevation along 670 feet of Watson Lane. Alternative 4 would increase the severity of impacts for six environmental resources. Like the at-grade crossing for Alternative 2, the at-grade crossing along Watson Lane associated with Alternative 4 would increase the severity of hazards, public services, transportation, and wildfire due to potential conflicts between evacuating and emergency vehicles and train traffic. Alternative 4 would also increase the impacts for land use and planning due to Alternative 4's inconsistency with the existing General Plan Circulation Element, which identifies the Newell Drive extension as the proposed roadway alignment. Alternative 4 would also result in greater construction noise impacts due to the increased proximity of construction to residences. Furthermore, unlike the proposed project or Alternative 2 and 3, Alterative 4 would require the take of portions of private residences located along Watson Lane. For all these reasons, Alternative 4 would result in the greatest environmental impacts.

Table 6-3 Comparison of Alternative's Impacts

Issue	Project	Alternative 1: No Project	Alternative 2: At-Grade Newell Drive Crossing	Alternative 3: Reduced Buildout	Alternative 4: Watson Lane Reconfiguration
Aesthetics	LTSM	NI (+)	LTSM (+)	LTSM (+)	LTSM (+)
Agricultural and Forestry Resources	NI	NI (+)	NI (=)	NI (=)	NI (=)
Air Quality	LTSM	NI (+)	LTSM (+)	LTSM (+)	LTSM (+)
Biological Resources	LTSM	NI (+)	LTSM (+)	LTSM (+)	LTSM (+)
Cultural Resources	LTSM	NI (+)	LTSM (+)	LTSM (+)	LTSM (+)
Energy	LTSM	NI (+)	LTSM (+)	LTSM (+)	LTSM (+)
Geology and Soils	LTSM	NI (+)	LTSM (+)	LTSM (+)	LTSM (+)
Greenhouse Gas Emissions	SU	NI (+)	SU (+)	SU (+)	SU (+)
Hazards and Hazardous Materials	LTSM	NI (+)	LTSM (-)	LTSM (=)	LTSM (-)
Hydrology and Water Quality	LTS	NI (+)	LTS (=)	LTS (+)	LTS (+)
Land Use and Planning	LTS	NI (+)	LTS (=)	LTS (=)	LTS (-)
Noise	LTSM	NI (+)	LTSM (+)	LTSM (+)	LTSM (-)
Population and Housing	LTS	NI (+)	LTS (=)	LTS (=)	LTS (=)
Public Services and Recreation	LTSM	NI (+)	LTSM (-)	LTSM	LTSM (-)
Transportation	LTS	NI (+)	LTS (-)	LTS (=)	LTS (-)
Tribal Cultural Resources	LTSM	NI (+)	LTSM (+)	LTSM (+)	LTSM (+)
Utilities and Service Systems	LTS	NI (+)	LTS (=)	LTS (+)	LTS (=)
Wildfire	LTSM	NI (+)	LTSM (-)	LTSM (=)	LTSM (-)

NI = No Impact; LTS = Less than Significant; LTSM = Less than Significant with Mitigation; SU = Significant and Unavoidable

Green: + Superior to the proposed project (reduced level of impact)

Red: - Inferior to the proposed project (increased level of impact)

No color: = Similar level of impact to the project

7 References and List of Preparers

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7.2 List of Preparers

This EIR was prepared by the City of American Canyon, with the assistance of Rincon Consultants, Inc. and GHD. Consultant staff involved in the preparation of the EIR are listed below.

RINCON CONSULTANTS, INC.

Darcy Kremin, Director-in-Charge
Leo Mena, Senior Environmental Planner, Project Manager
Jesse Voremberg, Environmental Planner, Assistant Project Manager
David Brodeur, Planner
Ethan Knox, Environmental Planner
Josh Carman, Director
Lucas Carneiro, Environmental Planner
Destiny Breneisen, Environmental Planner
Christian Knowlton, Biologist
Kristin Asmus, Senior Biologist and Senior Project Manager
Matt Gonzalez, Archaeologist
JulieAnn Murphy, Senior Architectural Historian
Andrew McGrath, Paleontologist
Virginia Dussel, Environmental Planner
Antonia Davetas, Planner
Gina Gerlich, GIS Analyst
Chris Jackson-Jordan, GIS Analyst
Luis Apolinar, Publishing Specialist

GHD

Colin Burgett, Senior Project Manager
Jill Hough, Travel Demand Modeling Lead
Todd Tregenza, Project Director
Paige Thornton, GIS/Modeling

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Appendix A

Notice of Preparation and Scoping Comments Received

NOTICE OF PREPARATION

City of American Canyon Paoli/Watson Lane Annexation

Date: September 7, 2022

To: Reviewing Agencies, Interested Parties, and Organizations

Subject: Notice of Preparation of a Draft Environmental Impact Report for the City of American Canyon Paoli/Watson Lane Annexation Project

The City of American Canyon (City) intends to annex into the City, property within its Sphere of Influence (SOI) off Paoli Loop and Watson Lane. The City has determined that a Program Environmental Impact Report (EIR) will be necessary to evaluate environmental impacts of the annexation pursuant to the California Environmental Quality Act (CEQA). In compliance with CEQA, the City will be the Lead Agency and will prepare the Program EIR. The City is requesting comments and guidance on the scope and content of the Program EIR from responsible and trustee agencies, interested public agencies, organizations, and the general public (CEQA Guidelines Section 15082).

This Notice of Preparation (NOP) provides a summary of the proposed annexation; includes the City's preliminary identification of the potential environmental issues to be analyzed in the Program EIR; and provides information on how to comment on the scope of the Program EIR.

Notice of Preparation Public Review Period: September 7, 2022 to October 7, 2022

The City requests your careful review and consideration of this notice, and it invites any and all input and comments from interested agencies, persons, and organizations regarding the preparation of the Program EIR. Comments and responses to this notice must be in writing and submitted to the Lead Agency Contact through October 7, 2022 at 4:00 p.m. If applicable, please indicate a contact person for your agency or organization. If your agency is a responsible agency as defined by CEQA Guidelines Section 15381, your agency may use the environmental documents prepared by the City when considering permits or approvals for action regarding the project.

Lead Agency Contact
Sean Kennings, LAK Associates
PO Box 7043
Corte Madera, CA 94976
sean@lakassociates.com

Written Comments: Please submit written comments within 30 days of the date of this notice to Sean Kennings by 4:00 p.m. on October 7, 2022:

- Email: sean@lakassociates.com
- Regular Mail: Sean Kennings, LAK Associates, PO Box 7043, Corte Madera, CA 94976

Public Scoping Meeting: The City will hold a virtual scoping meeting to provide an opportunity for agency staff and interested members of the public to submit written and oral comments on the scope of the environmental issues to be addressed in the Program EIR. The scoping meeting will be held on **September 21, 2022 at 2:00 p.m.** To attend the scoping meeting, go to https://zoom.us/join.

Webinar ID: 878 5777 9430

Passcode: 437335

Dial: (408) 638 0968

The scoping presentation will be available to view on: https://www.cityofamericancanyon.org/government/city-hall/city-clerk/meetings-agendas.

Project Background: The City must complete a comprehensive environmental review consistent with the California Environmental Quality Act (CEQA) as part of the Napa County Local Agency Formation Commission (LAFCO) application to annex approximately 83 acres of the Sphere of Influence (SOI) into City limits. A map of the project's regional location is included as Figure 1.

Project Location: The proposed annexation site is surrounded by City limits to the east, west, and south.

East: Future Watson Ranch and existing agricultural uses east of the Union Pacific Railroad (UPRR).

West: Paoli Loop Road and State Route (SR) 29. Industrial uses are located west of SR 29.

South: Union Pacific Railroad (UPRR) right-of-way and vacant mixed residential/commercial uses.

North: Former vineyard property in unincorporated Napa County.

The project location and surrounding jurisdictional boundaries are shown in Figure 2.

Proposed Project: The project contemplates amending the City's General Plan and zoning ordinance prior to submitting the Napa County LAFCO annexation application.

General Plan Land Use Designations and Pre-Zoning

Several parcels are anticipated to be redesignated by the General Plan to an urban land use as part of this project. The list below identifies each proposed specific land use designation.

- Approximately 47 acres currently designated Agriculture would be changed to Industrial and Residential Estate (RE).
- The City previously designated and pre-zoned 5.5 acres east of the UPRR in the northeast section as Town Center (TC). The TC designation and pre-zoning accommodates a variety of residential and commercial uses. This project does not propose to change the current TC General Plan designation and pre-zoning. This property is also anticipated to accommodate an extension of Newell Drive as described further in the NOP.
- Approximately 28 acres designated RE would be pre-zoned as such, which would accommodate residences with a minimum lot size of one acre. These parcels are located off Watson Lane with existing residential uses. The RE pre-zoning is consistent with Napa County's current policy to not induce additional residential development beyond existing conditions because the area is located within Zone "D" of the Napa County Airport Land Use Compatibility Plan.
- The approximately 34 acres designated as Industrial would be pre-zoned as Paoli Light Industrial (PLI), which would be a new zoning designation that accommodates existing and new light manufacturing uses, research and development, offices, or similar uses. The Industrial land west of the North Slough would be further pre-

zoned with a PLI Commercial Overlay District. The Overlay District would accommodate industrial uses plus commercial and commercially-related uses that capitalize on vehicle access and visibility from SR 29.

- Immediately west of the annexation area, four acres between SR 29 and Paoli Loop Road currently zoned as Light Industrial (LI) would be rezoned as PLI with a Paoli Commercial Overlay District.

Figure 3 shows the existing land use designations. Figure 4 shows the proposed land use designations. The proposed pre-zoning is shown in Figure 5. The parcels designated as Industrial would be subdivided.

Project Buildout

The annexation area would ultimately be developed for commercial, industrial, and visitor-serving/hotel use. For the purposes of analysis in this EIR, it is conservatively assumed that 80 percent of parcels pre-zoned for PLI, PLI with Paoli Commercial Overlay, and TC would be developed for commercial, industrial, and visitor-serving/hotel uses. The remaining 20 percent accounts for front setbacks, right-of-way for construction of the proposed Newell Drive extension, including an overcrossing at the railroad, and a biological resources buffer around North Slough. Parcels pre-zoned for RE were assumed to be developed at a density of one dwelling unit per acre, pursuant to City of American Canyon Municipal Code Chapter 19.10. Estimated buildout is summarized below:

Estimated Maximum Buildout

Land Use	Additional Development (Square Feet)
Residential	N/A
Commercial	494,942
Industrial	696,888
Visitor-Serving/Hotel	189,698

Newell Drive Alignment

The City would extend Newell Drive approximately one mile from SR 29 southeast along the northern boundary of the annexation area to its planned terminus at the northern limits of Watson Ranch. The Newell Drive extension would cross the UPRR tracks via an overcrossing. The Newell Drive extension would provide a parallel roadway east of SR 29 to relieve chronic peak-period traffic congestion and additional roadway capacity in the event of an emergency that blocks SR-29. The Newell Drive extension is shown in relation to the annexation area in Figure 6.

Pre-Annexation Agreement

In June 2019, the American Canyon City Council adopted Resolution 2019-44 to execute a First Amended Pre-Annexation Agreement for the annexation area. The resolution notes that the annexation area includes continuous parcels to avoid creating an “island” of unincorporated territory surrounded by the City. The islands being referred to include the UPRR right-of-way in the southeastern section of the annexation area and the area to the east of the UPRR. The resolution includes a clause that mentions dedication of a public right-of-way to extend Newell Drive, as discussed above.

Napa County LAFCO Approval

In accordance with State Law, Napa County LAFCO has approval authority over the City’s annexation application. Napa County LAFCO requires preparation of CEQA documentation prior to annexation and identifies five additional issue areas of local interest to address in the CEQA documentation. These include cumulative and regional impacts, impacts to public services, conversion of prime agricultural lands, consistency with general and specific plans, and availability of affordable housing.

Project Alternatives: The Program EIR will evaluate a reasonable range of project alternatives that, consistent with CEQA, meet most of the project objectives and reduce or avoid potential environmental effects, including a required No Project Alternative.

Potential Environmental Effect Areas: The Program EIR will describe the reasonably foreseeable and potentially significant adverse effects of the project (both direct and indirect). The Program EIR also will evaluate the cumulative impacts of the project when considered in conjunction with other related past, present, and reasonably foreseeable future projects. The City preliminarily anticipates that the project could result in potentially significant environmental impacts in the following topic areas, which will be further evaluated in the Program EIR.

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire
- Cumulative Effects
- Growth Inducing Effects

When the Draft Program EIR is completed, it will be available for review at the City's offices located at 4381 Broadway Street, Suite 201, American Canyon, California 94503 and online at: https://www.cityofamericancanyon.org/government/community-development/development-projects.

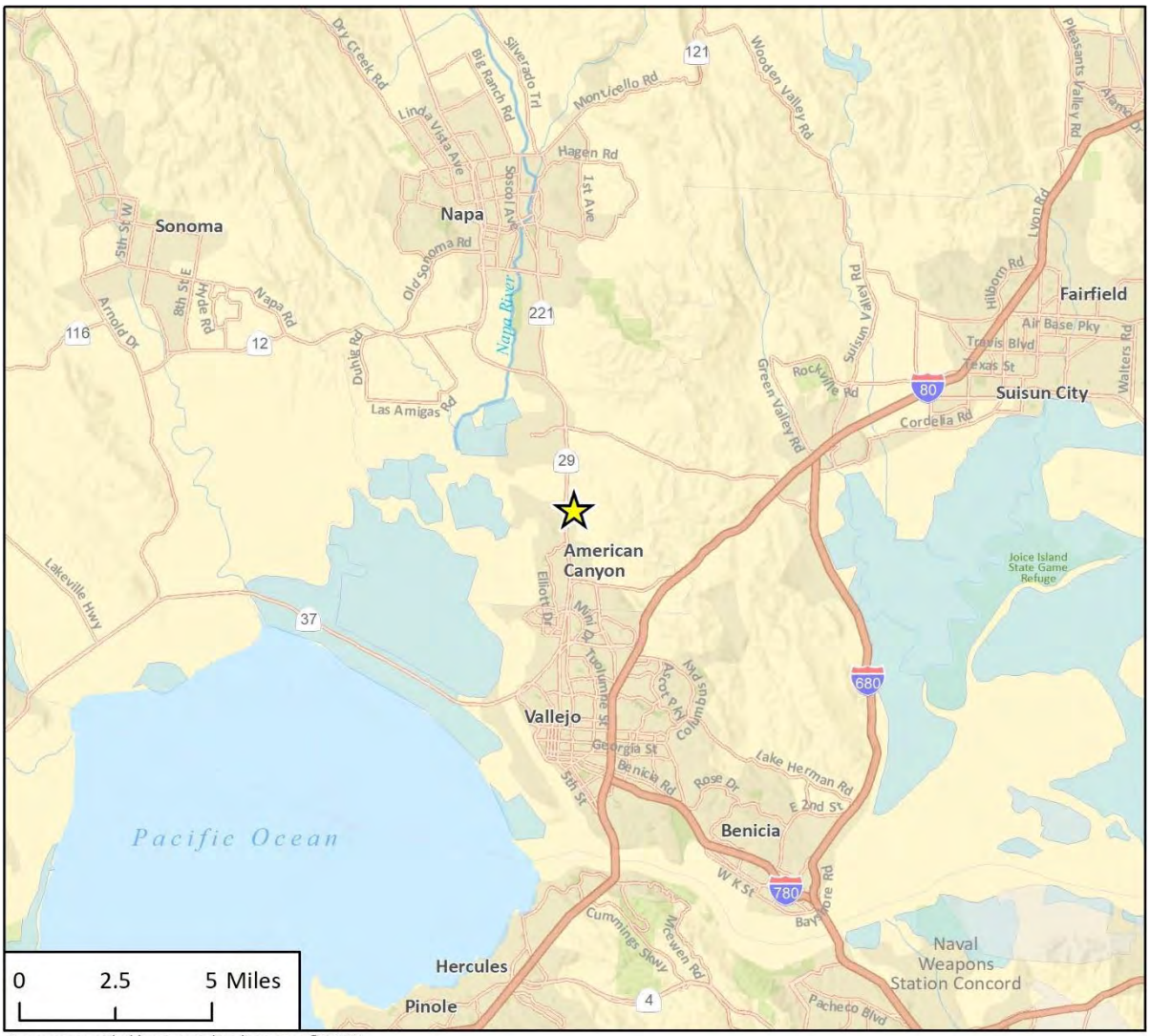
The City will issue a Notice of Availability of a Draft Program EIR at that time to inform the public and interested agencies, groups, and individuals of how to access the Draft Program EIR and provide comments. If you have questions regarding this NOP or the scoping meeting, please contact Sean Kennings, LAK Associates, at (415) 533-2111 or via email at sean@lakassociates.com.



Brent Cooper, AICP, Community Development Director

September 7, 2022
Date

Figure 1 Regional Location



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Project Location

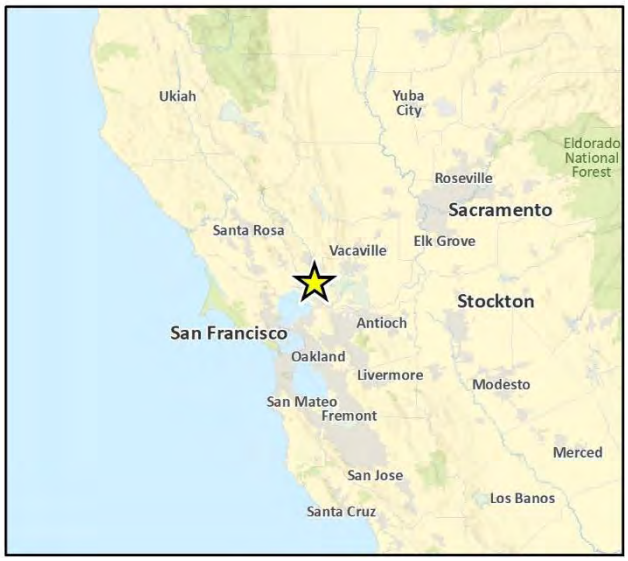


Figure 2 Project Location

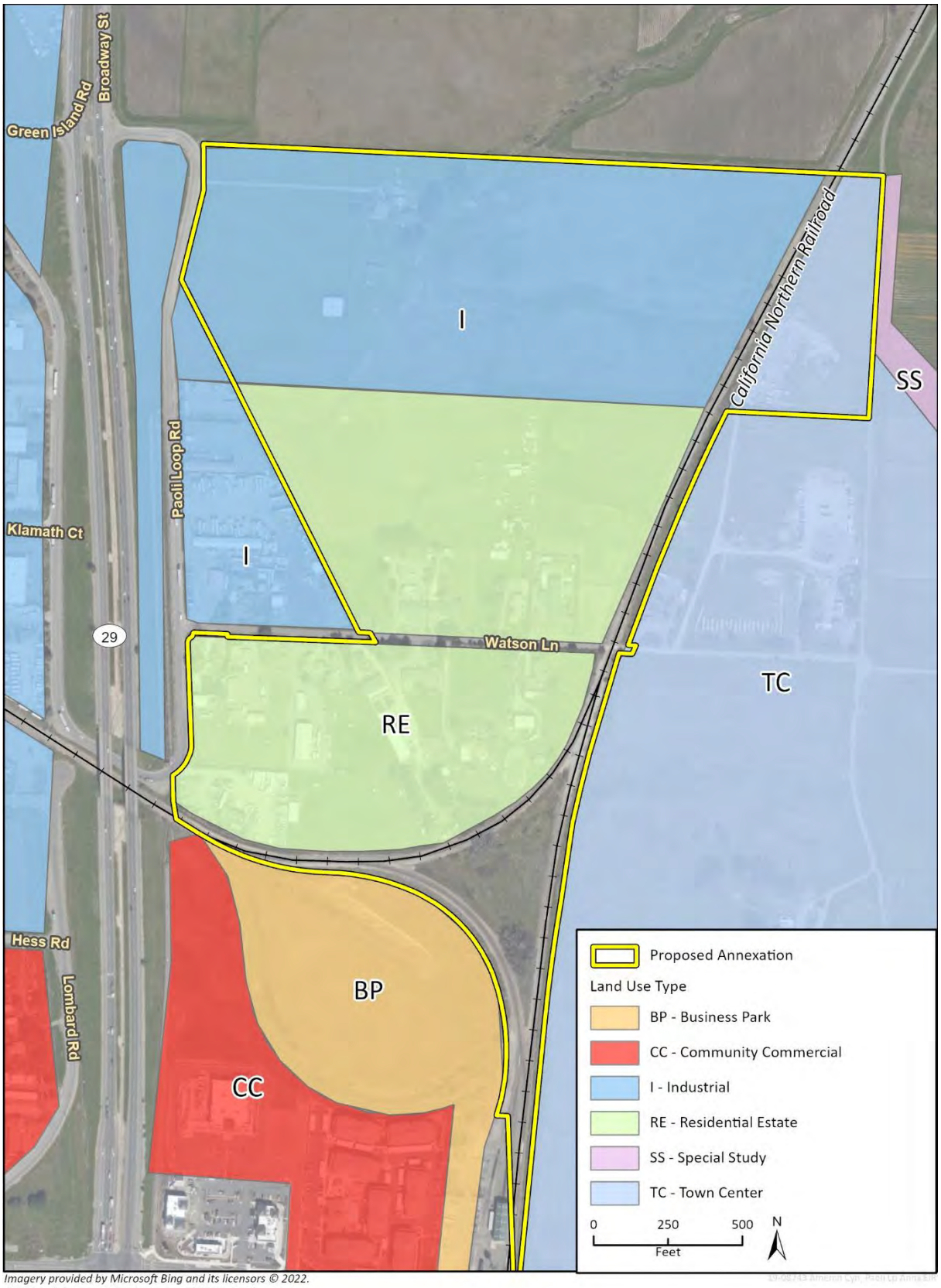


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Additional data provided by County of Napa, 2022.

Figure 3 Existing City of American Canyon Land Use Designations

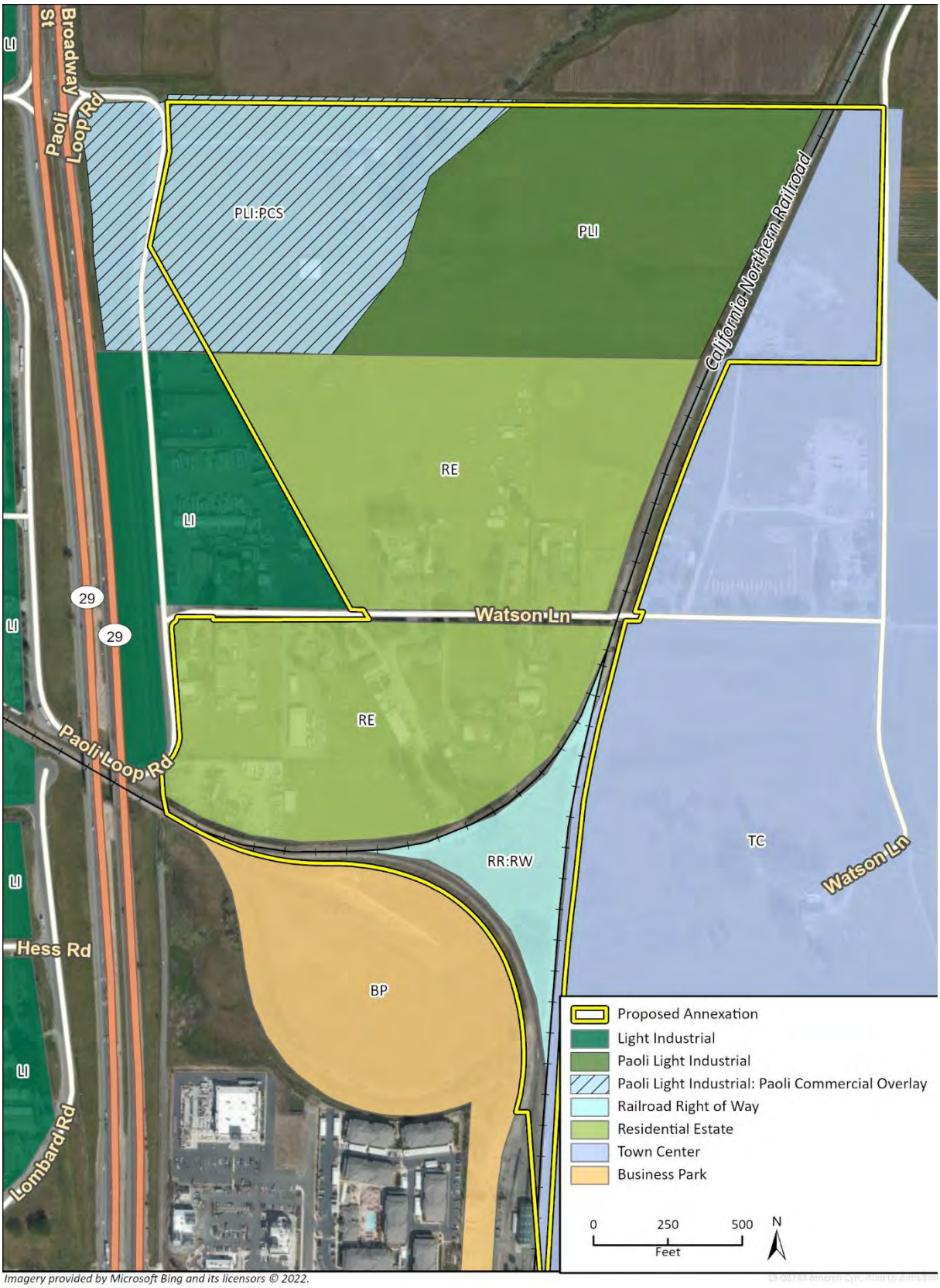


Figure 4 Proposed General Plan Land Use Designations



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Figure 5 Proposed Pre-Zoning



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Figure 6 Proposed Newell Drive Alignment



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Additional data provided by County of Napa, 2022.

Letter 1

From: [redacted]
To:
Subject: FW: [EXT] FW: Paoli/Watson Lane Annexation Project
Date: Wednesday, September 14, 2022 11:28:45 AM

[redacted]
Sent: Monday, September 12, 2022 11:21 AM
[redacted]
Subject: [EXT] FW: Paoli/Watson Lane Annexation Project

CAUTION: This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .

From: Luo, Yunsheng@DOT <Yunsheng.Luo@dot.ca.gov>
Sent: Monday, September 12, 2022 11:12 AM
To: sean@lakassociates.com
Subject: Paoli/Watson Lane Annexation Project

Good morning Sean,

Hope this email finds you well. Caltrans is reviewing the NOP for the Paoli/Watson Lane Annexation project. I am wondering if a TIA/TIS has been prepared for this project?

Thank you!

Best,

Yunsheng Luo
Associate Transportation Planner
Local Development Review (LDR), Caltrans D4
Work Cell: 510-496-9285
For early coordination and project circulation, please reach out to ***LDR-D4@dot.ca.gov***

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Bay Delta Region
2825 Cordelia Road, Suite 100
Fairfield, CA 94534
(707) 428-2002
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

Letter 2

October 4, 2022

Sean Kennings
City of American Canyon
Post Office Box 7043
Corte Madera, CA 94976
sean@lakassociates.com

Subject: Paoli/Watson Lane Annexation Project, Notice of Preparation of a Program Environmental Impact Report, SCH No. 2022090097, City of American Canyon, Napa County

Dear Mr. Kennings:

The California Department of Fish and Wildlife (CDFW) reviewed the Notice of Preparation (NOP) of a Program Environmental Impact Report (EIR) for the Canyon Paoli/Watson Lane Annexation Project (Project).

CDFW is providing the City of American Canyon (City), as the Lead Agency, with specific detail about the scope and content of the environmental information related to CDFW's area of statutory responsibility that must be included in the EIR (Cal. Code Regs., tit. 14, § 15082, subd. (b)).

CDFW ROLE

CDFW is a **Trustee Agency** with responsibility under the California Environmental Quality Act (CEQA) for commenting on projects that could impact fish, plant, and wildlife resources (Pub. Resources Code, § 21000 et seq.; Cal. Code Regs., tit. 14, § 15386). CDFW is also considered a **Responsible Agency** if a project would require discretionary approval, such as a permit pursuant to the California Endangered Species Act (CESA) or Native Plant Protection Act (NPPA), the Lake and Streambed Alteration (LSA) Program, and other provisions of the Fish and Game Code that afford protection to the State's fish and wildlife trust resources. Pursuant to our authority, CDFW has the following concerns, comments, and recommendations regarding the Project.

PROJECT DESCRIPTION AND LOCATION

The Project will annex 83 acres within the City's Sphere of Influence off of Paoli Loop and Watson Land into American Canyon city limits. This would result in rezoning of several parcels to an urban land use, including 47 acres currently designated as Agricultural land to be changed to Industrial and Residential Estate land. The Project would also extend Newell Drive approximately one mile from State Route 29, southeast along the northern boundary of the annexation area, to its planned terminus at the northern limits of Watson Ranch.

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The CEQA Guidelines (Cal. Code Regs., tit. 14, § 15000 et seq.) require that the EIR incorporate a full project description, including reasonably foreseeable future phases of the Project, that contains sufficient information to evaluate and review the Project's environmental impact (CEQA Guidelines, §§ 15124 & 15378). Please include a complete description of the following Project components in the Project description:

- Land use changes resulting from, for example, rezoning certain areas.
- Footprints of permanent Project features and temporarily impacted areas, such as staging areas and access routes.
- Area and plans for any proposed buildings/structures, ground disturbing activities, fencing, paving, stationary machinery, landscaping, and stormwater systems.
- Operational features of the Project, including level of anticipated human presence (describe seasonal or daily peaks in activity, if relevant), artificial lighting/light reflection, noise, traffic generation, and other features.
- Construction schedule, activities, equipment, and crew sizes.

The NOP identifies that the EIR will be a Program EIR. While Program EIRs have a necessarily broad scope, CDFW recommends providing as much information related to anticipated future activities as possible. CDFW recognizes that, pursuant to CEQA Guidelines section 15152, subdivision (c), if a Lead Agency is using the tiering process in connection with an EIR or large-scale planning approval, the development of detailed, site-specific information may not be feasible and can be deferred, in many instances, until such time as the Lead Agency prepares a future environmental document. This future environmental document would cover a project of a more limited geographical scale and is appropriate if the deferred information does not prevent adequate identification of significant effects of the planning approval at hand. The CEQA Guidelines section 15168, subdivision (c)(4) states, "Where the later activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were within the scope of the program EIR." Based on CEQA Guidelines section 15183.3 and associated *Appendix N Checklist*, and consistent with other program EIRs, CDFW recommends creating a procedure or checklist for evaluating subsequent project impacts on biological resources to determine if they are within the scope of the Program EIR or if an additional environmental document is warranted. This checklist should be included as an attachment to the EIR. Future analysis should include all special-status species and sensitive habitat including but not limited to species considered rare, threatened, or endangered species pursuant to CEQA Guidelines, section 15380.

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When used appropriately, the checklist should be accompanied by enough relevant information and reasonable inferences to support a "within the scope" of the EIR conclusion. For subsequent Project activities that may affect sensitive biological resources, a site-specific analysis should be prepared by a qualified biologist to provide the necessary supporting information. In addition, the checklist should cite the specific portions of the EIR, including page and section references, containing the analysis of the subsequent Project activities' significant effects and indicate whether it incorporates all applicable mitigation measures from the EIR.

REGULATORY REQUIREMENTS

California Endangered Species Act and Native Plant Protection Act

Please be advised that a CESA Incidental Take Permit (ITP) must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA or NPPA, either during construction or over the life of the Project. Issuance of a CESA ITP is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, such as those identified in **Attachment 1**, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA ITP.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce the population of a threatened or endangered species (Pub. Resources Code, §§ 21001, subd. (c) & 21083; CEQA Guidelines, §§ 15380, 15064, and 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with CESA.

Nesting Birds

CDFW also has authority over actions that may disturb or destroy active nest sites or take birds. Fish and Game Code sections 3503, 3503.5, and 3513 protect birds, their eggs, and nests. Migratory birds are also protected under the federal Migratory Bird Treaty Act.

Fully Protected Species

Fully Protected species, including any listed in **Attachment 1,** may not be taken or possessed at any time except for collecting these species for necessary scientific research, relocation of the bird species for the protection of livestock, or if they are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (Fish & G. Code, §§ 3511, 4700, 5050, & 5515).

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Lake and Streambed Alteration Agreement

CDFW will require an LSA Notification, pursuant to Fish and Game Code sections 1600 et. seq. for Project activities affecting lakes or streams and associated riparian habitat. Notification is required for any activity that will substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake or stream. Work within ephemeral streams, washes, watercourses with a subsurface flow, and floodplains are subject to notification requirements. CDFW, as a Responsible Agency under CEQA, will consider the CEQA document for the Project. CDFW may not execute the final LSA Agreement until it has complied with CEQA as a Responsible Agency.

ENVIRONMENTAL SETTING

The EIR should provide sufficient information regarding the environmental setting ("baseline") to understand the Project's, and its alternative's (if applicable), potentially significant impacts on the environment (CEQA Guidelines, §§ 15125 & 15360).

CDFW recommends that the CEQA document prepared for the Project provide baseline habitat assessments for special-status plant, fish and wildlife species located and potentially located within the Project area and surrounding lands, including but not limited to all rare, threatened, or endangered species (CEQA Guidelines, § 15380). The EIR should describe aquatic habitats, such as wetlands or waters of the U.S. or State, and any sensitive natural communities or riparian habitat occurring on or adjacent to the Project site (for sensitive natural communities see:https://wildlife.ca.gov/Data/VegCAMP/NaturalCommunities#sensitive%20natural%20communities), and any stream or wetland set back distances the City may require. Fully protected, threatened or endangered, candidate, and other special-status species and sensitive natural communities that are known to occur, or have the potential to occur in or near the Project site, include but are not limited to those listed in **Attachment 1**.

Habitat descriptions and the potential for species occurrence should include information from multiple sources: aerial imagery, historical and recent survey data, field reconnaissance, scientific literature and reports, U.S. Fish and Wildlife Service's (USFWS) Information, Planning, and Consultation System, and findings from "positive occurrence" databases such as California Natural Diversity Database (CNDDB). Based on the data and information from the habitat assessment, the EIR should adequately assess which special-status species are likely to occur on or near the Project site, and whether they could be impacted by the Project.

CDFW recommends that prior to Project implementation, surveys be conducted for special-status species with potential to occur, following recommended survey protocols

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if available. Survey and monitoring protocols and guidelines are available at: https://www.wildlife.ca.gov/Conservation/Survey-Protocol.

Botanical surveys for special-status plant species, including those with a California Rare Plant Rank (http://www.cnps.org/cnps/rareplants/inventory/), must be conducted during the blooming period within the Project area and adjacent habitats that may be indirectly impacted by, for example, changes to hydrological conditions, and require the identification of reference populations. More than one year of surveys may be necessary based on environmental conditions. Please refer to CDFW protocols for surveying and evaluating impacts to special status plants available at: https://www.wildlife.ca.gov/Conservation/Plants.

IMPACT ANALYSIS AND MITIGATION MEASURES

The EIR should discuss all direct and indirect impacts (temporary and permanent) that may occur with implementation of the Project (CEQA Guidelines, § 15126.2). This includes evaluating and describing impacts such as:

- Land use changes that would reduce open space or agricultural land uses and increase residential or other land use involving increased development;
- Encroachments into riparian habitats, wetlands or other sensitive areas;
- Potential for impacts to special-status species;
- Loss or modification of breeding, nesting, dispersal and foraging habitat, including vegetation removal, alternation of soils and hydrology, and removal of habitat structural features (e.g., snags, roosts, vegetation overhanging banks);
- Permanent and temporary habitat disturbances associated with ground disturbance, noise, lighting, reflection, air pollution, traffic or human presence; and
- Obstruction of movement corridors, fish passage, or access to water sources and other core habitat features.

The CEQA document should also identify reasonably foreseeable future projects in the Project vicinity, disclose any cumulative impacts associated with these projects, determine the significance of each cumulative impact, and assess the significance of the Project's contribution to the impact (CEQA Guidelines, §15355). Although a project's impacts may be insignificant individually, its contributions to a cumulative impact may be considerable; a contribution to a significant cumulative impact – e.g., reduction of available habitat for a special-status species – should be considered cumulatively considerable without mitigation to minimize or avoid the impact.

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Based on the comprehensive analysis of the direct, indirect, and cumulative impacts of the Project, the CEQA Guidelines direct the lead agency to consider and describe all feasible mitigation measures to avoid potentially significant impacts in the EIR, and/or mitigate significant impacts of the Project on the environment (CEQA Guidelines, §§ 15021, 15063, 15071, 15126.2, 15126.4 & 15370). This includes a discussion of impact avoidance and minimization measures for special-status species, which are recommended to be developed in early consultation with CDFW, USFWS, and the National Marine Fisheries Service. These measures can then be incorporated as enforceable Project conditions to reduce potential impacts to biological resources to less-than-significant levels.

ENVIRONMENTAL DATA

CEQA requires that information developed in EIRs and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to CNDDB. The CNNDB online field survey form and other methods for submitting data can be found at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The types of information reported to CNDDB can be found at the following link: https://wildlife.ca.gov/Data/CNDDB/Plantsand-Animals.

FILING FEES

CDFW anticipates that the Project will have an impact on fish and/or wildlife, and assessment of filing fees is necessary (Fish & G. Code, § 711.4; Pub. Resources Code, § 21089). Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW.

If you have any questions, please contact Alicia Bird, Environmental Scientist, at (707) 980-5154 or Alicia.Bird@wildlife.ca.gov; or Melanie Day, Senior Environmental Scientist (Supervisory), at (707) 210-4415 or Melanie.Day@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Erin Chappell
B77E9A6211EF486...

Erin Chappell
Regional Manager
Bay Delta Region

Attachment 1: Special-Status Species

ec: State Clearinghouse # 2022090097
Darcy Kremin, Rincon Consultants, Inc., dkremin@rinconconsultants.com

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Attachment 1: Special-Status Species

Species Name	Common Name	Status
Fish		
Hypomesus transpacificus	Delta smelt	SE, FT
Spirinchus thaleichthys	Longfin smelt	ST
Oncorhynchus mykiss irideus pop. 8	Central California Coast steelhead	FT
Acipenser mediostris	Southern Distinct Population Segment (DPS) green sturgeon	FT
Lampetra ayersi	Western river lamprey	SSC
Pogonichthys macrolepidotus	Sacramento Splittail	SSC
Birds		
Buteo swainsoni	Swainson's hawk	ST
Agelaius tricolor	Tricolored blackbird	ST
Elanus leucurus	White-tailed kite	FP
Falco peregrinus anatum	American peregrine falcon	FP
Aquila chrysaetos	Golden eagle	FP, BGEPA
Athene cunicularia	Burrowing owl	SSC
Geothlypis trichas sinuosa	Saltmarsh common yellowthroat	SSC
Melospiza melodia samuelis	San Pablo song sparrow	SSC
Circus hudsoniusl	Northern harrier	SSC
Amphibians and Reptiles		
Rana draytonii	California red-legged frog	FT, SSC
Rana boylii (northwest/north coast clade)	Foothill yellow-legged frog	SSC
Emys marmorata	Western pond turtle	SSC
Mammals		
Reithrodontomys raviventris	Salt-marsh harvest mouse	FP, SE, FE
Antrozous pallidus	Pallid bat	SSC
Taxidea taxus	American badger	SSC
Corynorhinus townsendii	Townsend's big-eared bat	SSC
Sorex ornatus sinuosus	Suisun shrew	SSC
Invertebrates		

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Bombus occidentalis	Western bumble bee	ICP
Speyeria callippe callippe	Callippe silverspot butterfly	FE
Branchinecta lynchi	Vernal pool fairy shrimp	FT
Plants		
Castilleja affinis var. *neglecta*	Tiburon paintbrush	ST, FE, CRPR 1B.2
Trifolium amoenum	two-fork clover	FE, CRPR 1B.1
Lilaeopsis masonii	Mason's lilaeopsis	SR, CRPR 1B.1
Lasthenia conjugens	Contra Costa goldfields	FE, CRPR 1B.1
Legenere limosa	Legenere	CRPR 1B.1
Extriplex joaquinana	San Joaquin spearscale	CRPR 1B.2
Balsamorhiza macrolepis	big-scale balsamroot	CRPR 1B.2
Astragalus tener var. *tener*	Alkali milk-vetch	CRPR 1B.2
Eryngium jepsonii	Jepson's coyote-thistle	CRPR 1B.2
Trifolium hydrophilum	Saline clover	CRPR 1B.2
Balsamorhiza macrolepis	big-scale balsamroot	CRPR 1B.2
Downingia pusilla	Dwarf downingia	CRPR 2B.2
Carex lyngbyei	Lyngbye's sedge	CRPR 2B.2

FP = state fully protected under Fish and Game Code; FE = federally listed as endangered under the Endangered Species Act (ESA); FT = federally listed as threatened under ESA; SE = state listed as endangered under CESA; ST = state listed as threatened under CESA; SR = state listed as rare under the NPPA; BGEPA = federal Bald and Golden Eagle Protection Act; ICP = California Terrestrial and Vernal Pool Invertebrate of Conservation Priority[1]; SSC = state Species of Special Concern; CRPR = California Rare Plant Rank[2]

[1] The list of California Terrestrial and Vernal Pool Invertebrates of Conservation Priority was collated during CDFW's Scientific Collecting Permit rulemaking process: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=157415&inline

[2] CRPR 1B plants are considered rare, threatened, or endangered in California and elsewhere. Further information on CRPR ranks is available in CDFW's *Special Vascular Plants, Bryophytes, and Lichens List* (https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline) and on the California Native Plant Society website (https://www.cnps.org/rare-plants/cnps-rare-plant-ranks).

Letter 3

From: [redacted]
To: [redacted]
Subject: FW: [EXT] FW: Paoli Watson annexation
Date: Tuesday, September 20, 2022 12:51:30 PM

[redacted]
Sent: Tuesday, September 20, 2022 10:52 AM
[redacted]
<bcooper@cityofamericancanyon.org>
Subject: [EXT] FW: Paoli Watson annexation

CAUTION: This email originated from outside of Rincon Consultants. Be cautious before clicking on any links, or opening any attachments, until you are confident that the content is safe .

From: Charles Lemmon <cblemmon@gmail.com>
Sent: Friday, September 16, 2022 8:18 AM
To: sean@lakassociates.com
Subject: Paoli Watson annexation

Sean

I am a property owner and resident at 193 Watson Ln, American Canyon, CA 94503, one of the properties that will be annexed. Can you provide me a scope document with a plot plan ? I have seen older versions from the city but would like to see the package that will be part of the EIR.

Charles Lemmon
Property Owner
193 Watson Ln, American Canyon, CA 94503

Letter 4

STATE OF CALIFORNIA — Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

RECEIVED
SEP 14 2022
City of American Canyon
Community Development Department

September 9, 2022

Sean Kennings
City of American Canyon
4381 Broadway Street, Suite 201
American Canyon, CA 94503

Re: 2022090097, Paoli/Watson Lane Annexation Project, Napa County

Dear Mr. Kennings:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

PARLIAMENTARIAN
Russell Attebery
Karuk

SECRETARY
Sara Dutschke
Miwok

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AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. 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.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
   a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
   b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
   a. If part or all of the APE has been previously surveyed for cultural resources.
   b. If any known cultural resources have already been recorded on or adjacent to the APE.
   c. If the probability is low, moderate, or high that cultural resources are located in the APE.
   d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
   a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
   b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Cameron.Vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

cc: State Clearinghouse

Paoli/Watson Lane Annexation Project Public Scoping Meeting

Meeting Time: 09-21-22 14:00

Letter 5

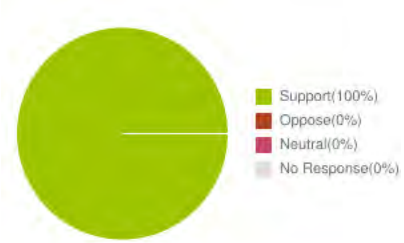
eComments Report

Meetings	Meeting Time	Agenda Items	Comments	Support	Oppose	Neutral
Paoli/Watson Lane Annexation Project Public Scoping Meeting	09-21-22 14:00	10	2	2	0	0

Sentiments for All Meetings

The following graphs display sentiments for comments that have location data. Only locations of users who have commented will be shown.

Overall Sentiment



Paoli/Watson Lane Annexation Project Public Scoping Meeting

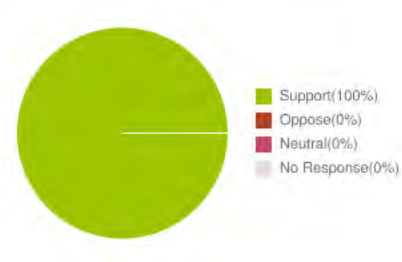
09-21-22 14:00

Agenda Name	Comments	Support	Oppose	Neutral
SCHEDULE AND NEXT STEPS	2	2	0	0

Sentiments for All Agenda Items

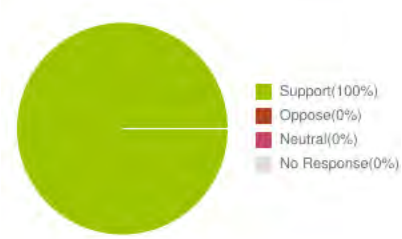
The following graphs display sentiments for comments that have location data. Only locations of users who have commented will be shown.

Overall Sentiment



Agenda Item: eComments for SCHEDULE AND NEXT STEPS

Overall Sentiment



Charles Lemmon

Location:

Submitted At: 8:34pm 09-20-22

Thank you for inviting the public to observe the scoping meeting. I look forward to reviewing the documents that describe the project scope and the Draft EIR when they are published. I look forward to working with the EIR preparation contractor and the City staff to fully understand the envisioned Land Use and Zoning. For example, the meeting agenda speaks of a potential Hotel site, I assume that would not be located on Watson Lane. I can't confirm that from the provided agenda package as it does not provide that level of detail. I look forward to learning what is the envisioned zoning for the various parcels.

With the completion of the Devlin Road extension, Connecting Newel to Paoli Loop will encourage motorists to bypass downtown highway 29 congestion by shortcutting to Newel and then points south. I expect significantly more traffic on Paoli Loop from 3-6 PM every night as well as 6-9 in the morning if there is an accident on 29. I do understand the need to annex the neighborhood for the greater good of the community, but here will be an impact on the existing residents of the neighborhood.

Charles Lemmon, Property Owner, 193 Watson Lane

John Dutra
Location:
Submitted At: 1:48pm 09-19-22

While I support the annexation, I live on Watson Lane and do not want my site zoned for public use, preferring housing which is needed so badly. Please respond as to how certain areas will be zoned prior to annexation and how we can impact the decision.

Letter 6

From: Ladeena Ford
To: sean@lakassociates.com
Cc: leslawson3460@gmail.com
Subject: Watson Lane
Date: Tuesday, October 4, 2022 2:01:05 PM
Attachments: image0.jpeg
image1.jpeg
image2.jpeg
Untitled attachment 00349.txt

>>>
>>> Hi Sean,
>>>
>>> I am providing comments on behalf of my parents Les and Earlene Lawson, Watson Lane residents.
>>>
>>> They watched the meeting via zoom and reviewed the proposed zoning.
>
>>> They are concerned because the recent proposal is not the same as the 2019 proposal.
>>>
>>> The 2019 proposal has their one acre parcel with their home zoned as residential, and their property behind their home zoned as light industrial. The recent proposal has it all zoned as residential.
>
>>> Please note that the 2019 proposal reflects residential use restrictions due to the property's location in zone D of the airport which restricts residential use. That is why it made sense that the property behind their home was proposed to be zoned as light industrial.
>>>
>>> The changes in the most recent proposal when compared to the 2019 proposal impacts 2 property owners, my parents and the property owned by the Dunlops.
>>>
>>> Can you please let us know the purpose of changing the zoning from the 2019 proposal? Please note that this new proposal limits the use of my parents property and the Dunlap's property. They can't develop residential due to airport restrictions and they can't develop light industrial.
>>>
>>> To be clear, my parents want the property behind their home zoned as light industrial same as the adjacent Paoli property, as reflected in the 2019 proposal.
>
> Also, can you please let us know if sewer will be brought down Watson Lane when it is annexed into the City.

See below for a picture of the most recent proposal, the 2019 proposal, and the letter regarding submittal of comments.

Although the letter states we can provide comments within 30 days, October 7 is not 30 days from the zoom meeting. My parents are concerned impacted Watson Lane residents may not have a sufficient amount of time to provide comments to this revised proposal.

Appendix B

Biological Resources Assessment



Paoli/Watson Lane Annexation

Biological Resources Assessment

prepared for

City of American Canyon
Jason B. Holley, City Manager
4381 Broadway Street, Suite 201
American Canyon, California 94503

prepared by

Rincon Consultants, Inc.
449 15th Street, Suite 303
Oakland, California 94612

October 2022

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

Paoli/Watson Lane Annexation

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Executive Summary

Rincon Consultants, Inc. has prepared this Biological Resources Assessment to document existing conditions and provide a basis for evaluation of potential impacts to special status biological resources during development and implementation of the Watson Lane Annexation (proposed annexation). The proposed annexation is located north of American Canyon in southern Napa County and seeks to annex approximately 83 acres in unincorporated Napa County within the City of American Canyon (City). The proposed annexation is bordered by highway 29 on the west and agriculture to the north, and railroad and agriculture to the east, along with railroad and undeveloped grassland to the south. The annexation includes low density residential, light industrial, railroad right of way, town center, and light industrial zoned properties. This study has been completed in accordance with the California Environmental Quality Act (CEQA).

Based on the habitats found on site, three special status species have the potential to be encountered within the proposed annexation area. The western burrowing owl (*Athene cunicularia*), the fully protected white tailed kite (*Elanus leucurus*) and the state threatened Swainson's hawk (*Buteo swainsoni*) have the potential to occur within the proposed annexation. No sensitive land cover types were observed within the proposed annexation area; however, North Slough and other potential jurisdictional features cross the northern portion of the proposed annexation. Direct and indirect impacts to special status species and drainages would be minimized and/or avoided to the greatest extent feasible with the implementation of measures described in Section 5, *Impact Analysis and Mitigation Measures*. Vegetation within and adjacent to the project site offers potential nesting habitat for bird species that are protected under the federal Migratory Bird Treaty Act and California Fish and Game Code. Direct and indirect impacts to these species and water features, would be minimized with implementation of the proposed avoidance and minimization measures, as a result, the project would not be likely to adversely affect special status species or wetlands.

1 Introduction

Rincon Consultants, Inc. (Rincon) has prepared this Biological Resources Assessment (BRA) to document existing conditions, summarize previous biological resource reports and studies, and provide a basis for evaluation of potential impacts to special status and sensitive biological resources from the implementation of the Watson Lane Annexation Project (project) located in Napa County, California (Figure 1). This BRA has been prepared in support of California Environmental Quality Act (CEQA) review of the project. The lead agency for the project is the City of American Canton.

1.1 Project Location

The project site is located north of American Canyon in southern Napa County (Figure 1 and Figure 2), within the Northern California Coast Ecoregion. The proposed annexation is bordered by highway 29 on the west and agriculture to the north, and railroad and agriculture to the east, along with railroad and undeveloped grassland to the south. The annexation will annex low density residential, light industrial, railroad right of way, town center, and light industrial zoned properties.

1.2 Project Description

The project would involve the annexation of approximately 83 acres in unincorporated Napa County within the City of American Canyon (City). The annexation would provide additional area for industrial, commercial, and town center/hotel uses while also providing City services, including water, sewer, and fire protection, to existing and future uses. Furthermore, the project aims to create a public right-of-way for the extension of Newell Drive which would serve as an alternative for north-south travel parallel to SR 29.

1.3 Regulatory Summary

Regulated or sensitive resources studied and analyzed herein include special status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, regionally protected resources (e.g., from county-wide Habitat Conservation Plans [HCPs] and Natural Community Conservation Plans [NCCPs]), and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by Federal, State, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the City of American Canyon).

1.3.1 Definition of Special Status Species

For the purposes of this report, special status species include:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA); including proposed and candidate species

Figure 1 Regional Location Map

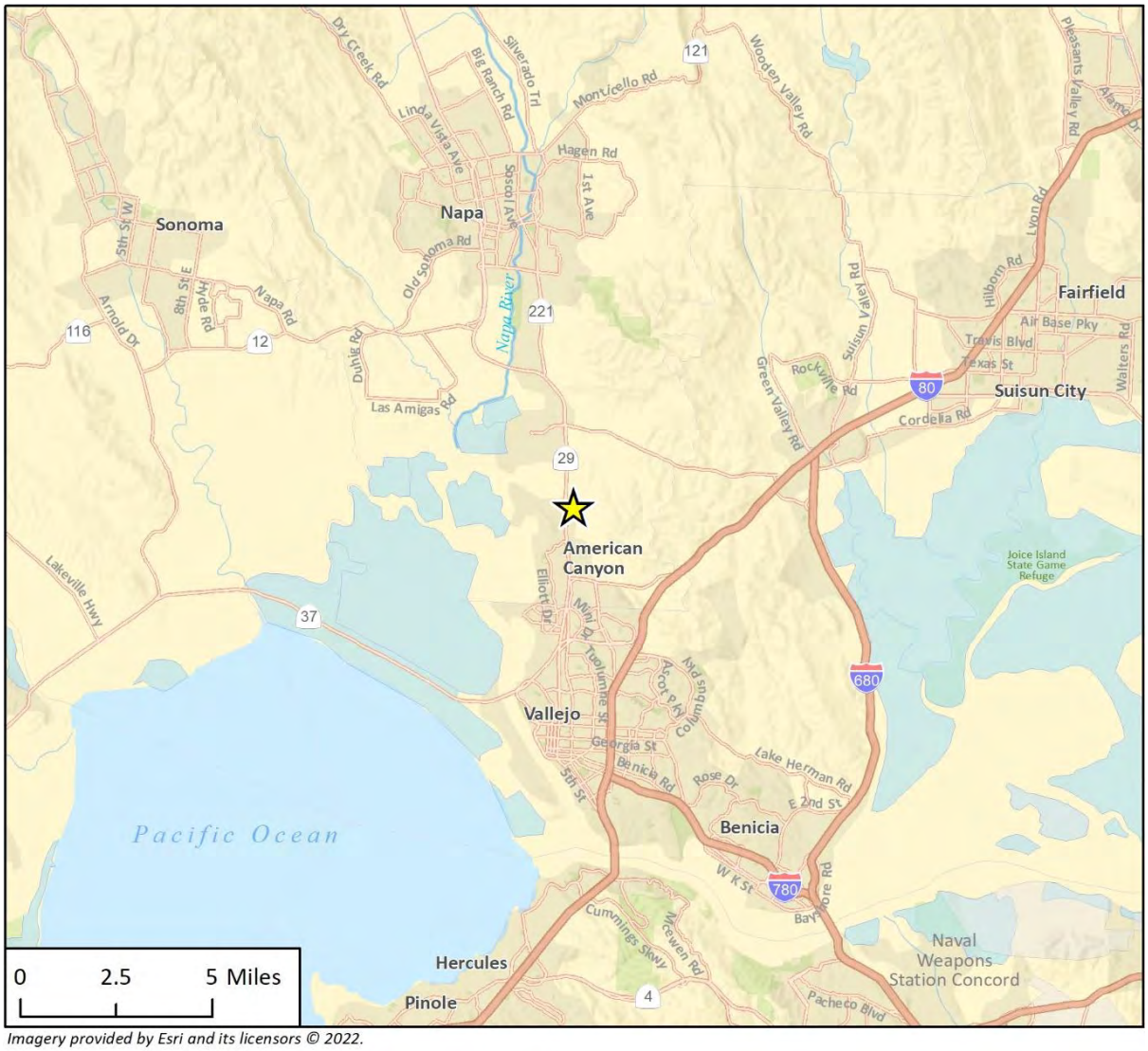


Figure 2 Project Location Map



Imagery provided by Microsoft Bing and its licensors © 2022.
Additional data provided by County of Napa, 2022.

- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA)
- Species designated as Fully Protected by the California Fish and Game Code (CFGC), and Species of Special Concern or Watch List by the California Department of Fish and Wildlife (CDFW)
- Native Plant Protection Act (NPPA) – State Rare (SR)
- California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR) 1A, 1B, 2A and 2B
- Species designated as sensitive by the U.S. Forest Service or Bureau of Land Management, if the project would affect lands administered by these agencies
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance, local policy, or HCPs/NCCPs

1.3.2 Environmental Statutes

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes (Attachment A):

- California Environmental Quality Act (CEQA)
- Federal Endangered Species Act (ESA)
- California Endangered Species Act (CESA)
- Federal Clean Water Act (CWA)
- California Fish and Game Code (CFGC)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Porter-Cologne Water Quality Control Act
- American Canyon General Plan

1.3.3 Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Checklist, were used to evaluate potential environmental effects. Based on these criteria, the project would have a significant effect on biological resources if it would:

a) *Have substantial adverse effects, 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 or U.S. Fish and Wildlife Service.*

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.*

c) *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.*

d) *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.*

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

2 Methodology

2.1 Biological Study Area

The Biological Study Area (BSA) evaluated for this analysis includes the proposed annexation area plus a 500-foot buffer to encompass potential impacts to biological resources (Figure 2).

2.2 Literature Review

Rincon conducted a literature review to characterize the nature and extent of biological resources on and adjacent to the BSA. The literature review included an evaluation of current and historical aerial photographs of the site (Google Earth), regional and site-specific topographic maps, and climatic data.

Queries of the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation system (IPaC; UFWS 2022a); CDFW California Natural Diversity Database (CNDDB; 2022a); and California Native Plant Society (CNPS) online Inventory of Rare and Endangered Plants of California (2022) were conducted to obtain comprehensive information regarding State and federally listed species and other special status species considered to have potential to occur within the *Cordelia and Cuttings Wharf, California* USGS 7.5-minute topographic quadrangle and the surrounding ten quadrangles (Napa, Mt. George, Fairfield North, Fairfield South, Vine Hill, Benicia, Mare Island, Petaluma Point, Sears Point, and Sonoma). The results of database-queries and lists of special status species were reviewed by Rincon's regional biological experts for accuracy and completeness. The final list of special status biological resources (species and sensitive natural communities) was evaluated based on documented occurrences within the twelve-quadrangle search area and biologists' expert opinions on species known to occur in the region. The evaluation results and justification were compiled into a table (Attachment D).

The following resources were reviewed for additional information on existing conditions relating to biological resources within the BSA:

- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey (2022)
- USFWS Critical Habitat Portal (2022b)
- CDFW Biogeographic Information and Observation System (CDFW 2022b)
- CDFW Special Vascular Plants, Bryophytes, and Lichens List (2022c)
- CDFW Special Animals List (2022)

The vegetation community characterizations for this analysis were based on the classification systems presented in the CDFW California Wildlife Habitat Relationships (CWHR) classification scheme (Mayer and Laudenslayer 1988). The potential for wildlife movement corridors was evaluated based on the California Essential Habitat Connectivity Project commissioned by the California Department of Transportation and CDFW (Spencer et al. 2010).

2.3 Field Reconnaissance Survey

The reconnaissance-level field surveys were conducted by Rincon Biologists Beth Wilson and Cristy Rice on August 16, 2022. The surveys consisted of pedestrian surveys of the northern parcels and visual surveys of all other parcels where access was not available, to document and field-verify vegetation communities and site conditions. During surveys, the biologists field-verified, refined and mapped the boundaries of vegetation communities and other land-cover types, documented the approximate limits of aquatic features including North Slough and other potentially jurisdictional features, mapped occurrences of incidental observation of special status species (including state and federal listed species), and developed a list of observed plants and wildlife. Definitive surveys to confirm the presence or absence of special status species were not performed and are not included with this analysis. Definitive surveys for special status plant and wildlife species generally require specific survey protocols, extensive field survey time, and are conducted only at specific time periods of the year.

2.4 Impact Evaluation

Existing conditions of the project site were assessed based on a review of background literature, aerial imagery, and the results of the reconnaissance survey. This information was compiled into maps and written descriptions of vegetation communities that form the foundation of the analysis for special status species potential to occur. Based on the types and condition of vegetation communities present within the BSA, Rincon conducted a habitat assessment for special status species and determined the potential for special status species to occur within the proposed annexation area. The impact analysis to address the CEQA Appendix G checklist items outlined under Section 1.3.3 is based on the presence of or potential for occurrence of special status biological resources in the context of the project site.

3 Existing Conditions

3.1 Physical Characteristics

3.1.1 Topography and Geography

Elevations in the BSA range from approximately 64 to 133 feet (16.2 to 40.5 meters) above mean sea level. The climate in this region is warm and temperate with an average temperature of 59 degrees Fahrenheit, and an annual total precipitation average of 23.4 inches (National Oceanic and Atmospheric Administration 2022). Urban development and agricultural land uses surround the proposed annexation.

3.1.2 Watershed and Drainages

A query of the USFWS's National Wetland Inventory (NWI) (US Fish and Wildlife Service [USFWS] 2022c) was conducted. Aerial imagery and the U.S. Geological Service's National Hydrology Dataset (2022) was also reviewed to determine if aquatic resources potentially falling under the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), or CDFW (i.e., jurisdictional waters), such as federally and State protected wetlands, occur in the proposed annexation. The North Slough drainage crosses the proposed annexation (U.S. Geologic Survey 2022; USFWS 2022c). North Slough is part of the Napa River watershed and drains runoff from the lands surrounding the proposed annexation. In addition, there are some areas that drain to North Slough to the east of North Slough. It is not currently known whether these areas are jurisdictional features and an evaluation as to whether these features are jurisdictional will be conducted in the future (see Section 5.3 below).

3.1.3 Soils

The U.S. Department of Agriculture - Natural Resource Conservation Service (USDA NRCS) Web Soil Survey delineates two soil map units within the proposed annexation: Haire loam, 2 to 9 percent slopes and Clear Lake clay, drained, 0 to 2 percent slopes (USDA NRCS 2022a). Site-specific soil observations are consistent with those mapped by the USDA NRCS. Soil distribution within proposed annexation is depicted in Figure 3. Each soil map unit is described below. None of the mapped soils are included on the *National Hydric Soil*s List, which lists soils that are permanently or seasonally saturated (USDA NRCS 2022b).

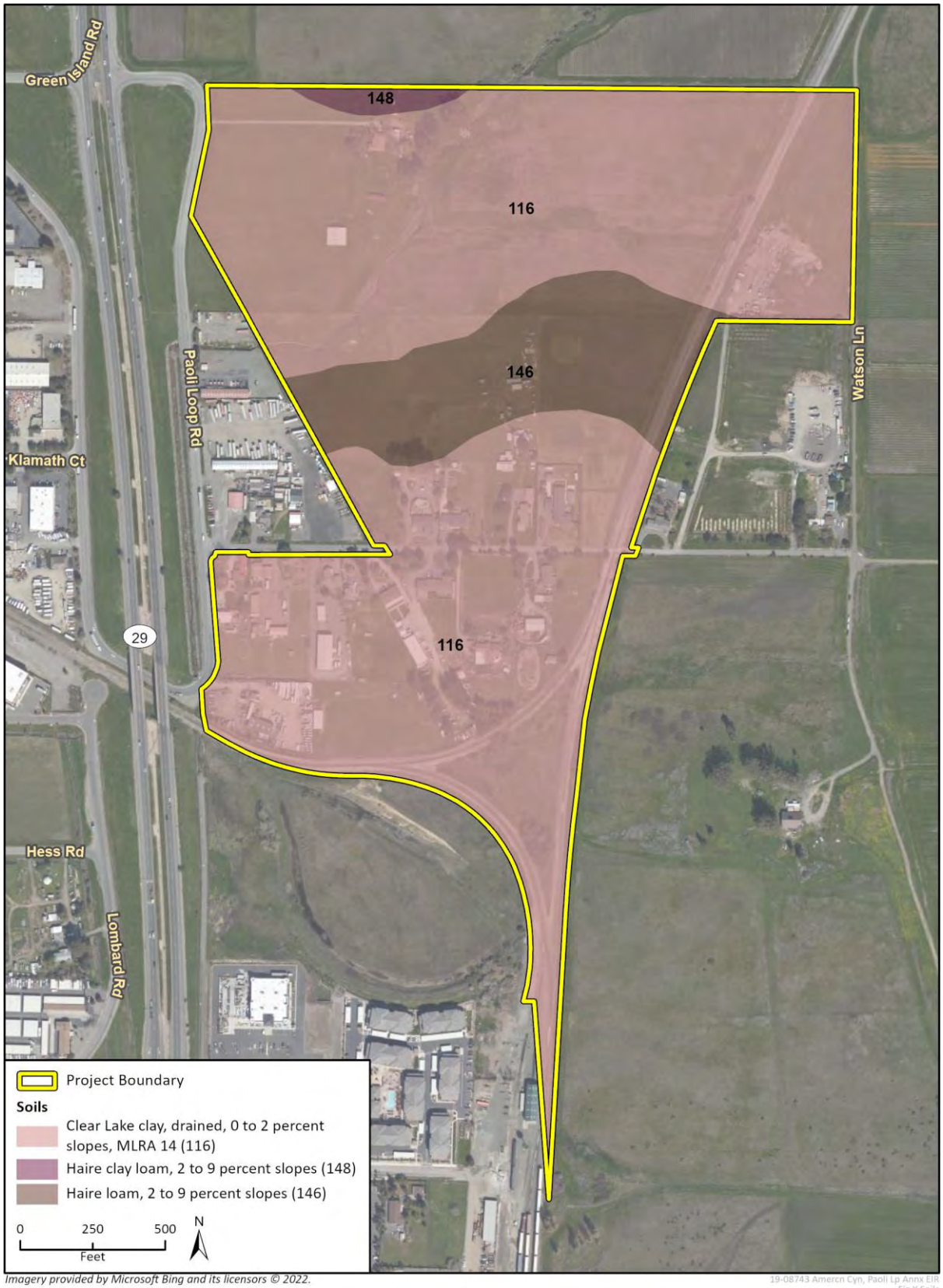
Clear Lake Clay, Drained, 0 to 2 Percent Slopes

The Clear Lake series of soils consists of poorly drained soils in old alluvial fans and in basins. These soils formed in alluvium derived from sedimentary rock. The plant cover is primarily grasses, forbs, and scattered oaks. This soil is mainly used for pasture.

Haire Loam, 2 to 9 Percent Slopes

The Haire series consists of moderately well drained soils on old terraces and alluvial fans. Haire soils formed from alluvium derived from sedimentary rock. The vegetative cover is primarily grasses and forbs. These soils are primarily used for pasture however, some areas are being used for orchards.

Figure 3 Soils Map Units within the Proposed Annexation



Haire Clay Loam, 2 to 9 Percent Slopes

The Haire series consists of moderately well drained soils on old terraces and alluvial fans. Haire soils formed from alluvium derived from sedimentary rock. The vegetative cover is primarily grasses and forbs. These soils are primarily used for pasture however, some areas are being used for orchards.

3.2 Vegetation and Other Land Cover

The natural community/ landcover descriptions listed below are based on the California Department of Fish and Wildlife (CDFW) California Wildlife Habitat Relationships classification scheme (CWHR) (Mayer and Laudenslayer 1988). Figure 4 shows the natural communities and land covers in the project site. The list below includes descriptions of vegetation communities and landcovers in and adjacent to the project site.

Non-Native Annual Grassland

Annual grasslands are herbaceous communities composed primarily of annual grass and forb species. This vegetation community exists throughout the proposed annexation, where introduced annual grasses are the dominant plant species. The dominant species observed included slender wild oats (*Avena barbata*), ripgut brome (*Bromus diandrus*), Italian rye grass (*Festuca perennis*), false barley (*Hordeum murinum*), yellow-star thistle (*Centaurea solstitialis*), black mustard (Brassica nigra), fennel (*Foeniculum vulgare*).

The slough and its surrounding area are also encompassed by annual grassland primarily dominated by non-native annual grasses with some coyote brush (*Baccharis pilularis*) in the uplands. The channel is mainly devoid of vegetation, though scattered patches of facultative hydrophytic species such as curly dock (*Rumex crispus*) were observed and concrete lining is present near the bridge. The slopes of the channel banks of other potentially jurisdictional features are primarily covered with non-native annual grasses including scattered patches of Harding grass (*Phalaris aquatica*), pepperweed (*Lepidium latifolium*) and curly dock interspersed with the grasses.

The potential jurisdictional features have been historically diverted from their natural topographic drainages (i.e., the typical gradient being downhill and flowing north to south or east to west). The potential jurisdictional features originate on properties with vineyards to the east and are diverted through a system of culverts and ditches onto and through the project site, flowing into North Slough. The northern potential jurisdictional feature drains properties with vineyards to the east and is piped approximately 0.25 mile under vineyards and Watson Lane, where it outfalls along the east side of the railroad tracks and flows through a culvert underneath the railroad tracks through the project site toward North Slough. The southern potential jurisdictional feature is more substantially and circuitously modified, originating as a natural topographic drainage on the property with vineyards to the southeast where it is diverted into a French drain and culvert system departing from its natural topographic drainage, running diagonally to the northwest under approximately 0.25 mile of vineyards. It outfalls out of a culvert into a ditch along the east side of Watson Lane where it flows south to north along Watson Lane, under Watson Lane through an east-west culvert system, continuing to the west in a linear ditch, then changing direction running south to north along the east side of the railroad tracks before it changes direction once more, flowing under the railroad tracks in an east-west facing culvert through the project site toward North Slough.

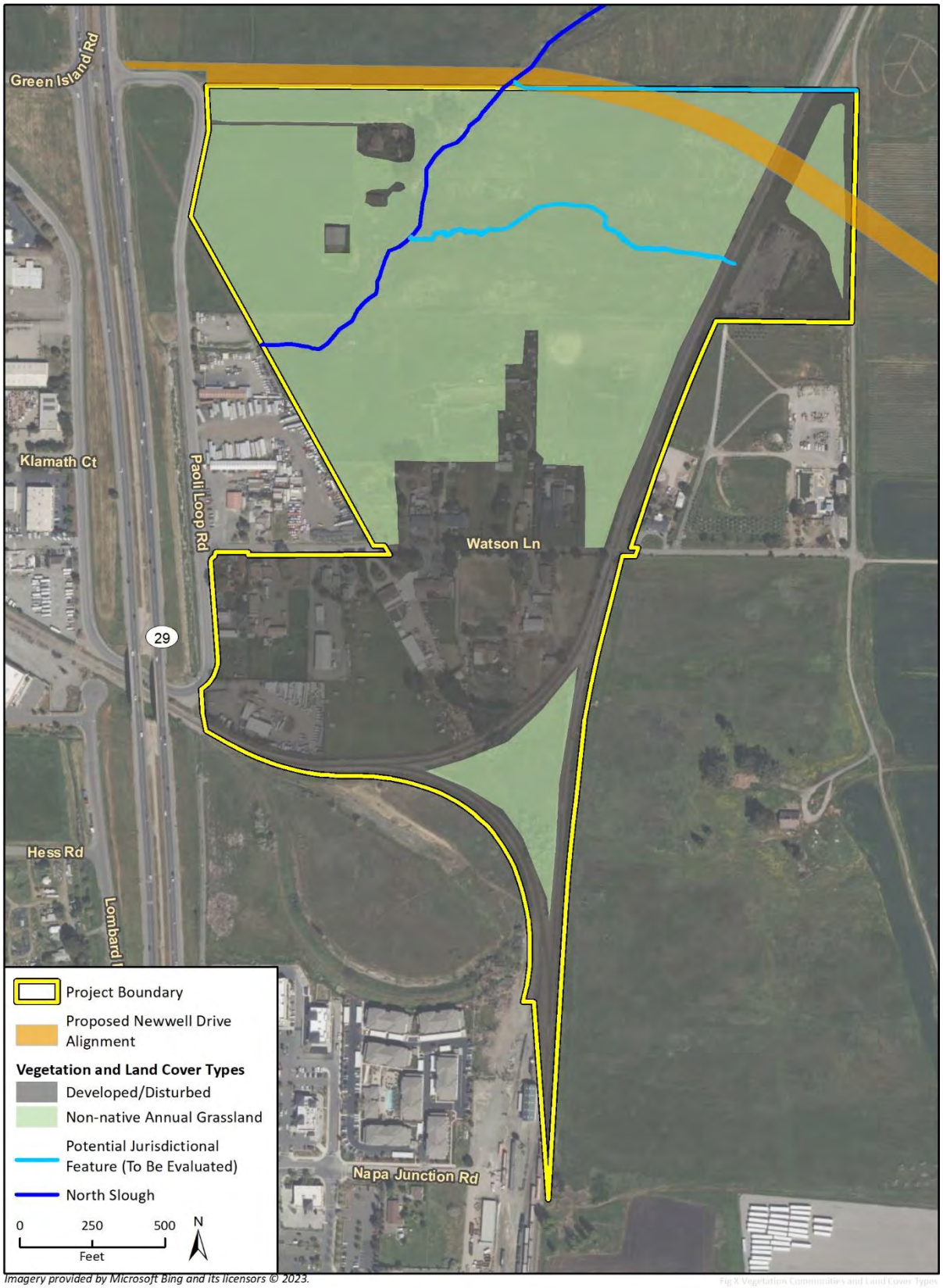
Urban

This land cover type is completely anthropogenic and is composed of residential, commercial, and industrial developed areas. Plant species within urban areas are typically comprised of ornamental plants and non-native invasive plant species, with large, developed areas lacking vegetation.

3.3 General Wildlife

The grassland habitat within and adjacent to the proposed annexation provides habitat for a variety of nesting birds, small mammals, and reptiles. Species which were detected during the reconnaissance survey included red-tailed hawk (*Buteo jamaicensis*), black-tailed jackrabbit (*Lepus californicus*), coyote (*Canis latrans*), and western fence lizard (*Sceloporus occidentalis*). For a complete list of wildlife observed see Attachment D.

Figure 4 Vegetation and Land Cover



4 Sensitive Biological Resources

This section discusses special status species and sensitive biological resources observed on the project site and evaluates the potential for the project site to support additional sensitive biological resources. Assessments for the potential occurrence of special status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB and other sources, species occurrence records from other sites in the vicinity of the survey area, previous reports for the project site, and the results of surveys of the project site. The potential for each special status species to occur in the BSA was evaluated according to the following criteria:

- **No Potential.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on the site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low Potential.** Few of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site. Protocol surveys (if conducted) did not detect species.
- **Moderate Potential**. Some of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDB, other reports) on the site recently (within the last 10 years).

4.1 Special Status Species

For this report, special status species are defined as those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the USFWS or the National Marine Fisheries Service (NMFS) under the federal Endangered Species Act; those listed or candidates for listing as rare, threatened, or endangered by the CDFW under the California Endangered Species Act; and animals designated as “Species of Special Concern” by CDFW or “Fully Protected” under the California Fish and Game Code. Additionally, rookery sites for species that nest colonially, such as bat maternity roosts, are also treated as special status.

4.1.1 Special Status Plant Species

Based on the database and literature review of records from the *Cordelia and Cuttings Wharf, California* USGS 7.5-minute topographic quadrangle and the surrounding ten quadrangles (Napa, Mt. George, Fairfield North, Fairfield South, Vine Hill, Benicia, Mare Island, Petaluma Point, Sears Point, and Sonoma), as well as the USFWS IPaC list of federally listed species, 73 special status plant

species are known to occur or have the potential to occur within the vicinity of the proposed annexation (Attachment B). However, due to grazing, mowing, and tilling, no special status plant species are expected to occur within the proposed annexation.

4.1.2 Special Status Wildlife Species

Of the 54 special-status wildlife species evaluated (Attachment B), three species, western burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), and white-tailed kite (*Elanus leucurus*), have a moderate potential to occur and are discussed further below. One species has a low potential to occur within the proposed annexation (American badger (*Taxidea taxus*)). This species was determined to have a low potential to occur because the surrounding land is active agriculture and the railroad tracks along with roads surrounding the annexation create a barrier to individuals dispersing into the annexation area. For the purposes of CEQA analysis, special-status species with low potential to occur will not be addressed further because these species have a low likelihood of being present within the vicinity of the project site. The remaining 50 special-status species evaluated are not expected to occur in the proposed annexation due to a lack of species-specific habitat requirements, the overall lack of suitable habitat such as natural vegetation communities or natural wetland habitats (e.g., marshes or seeps), and/or because the range of the species does not overlap with the proposed annexation. No federal or state-listed or other special-status wildlife species were observed during the field survey. CFGC Section 3503 and the federal Migratory Bird Treaty Act (MBTA) protect native bird species and their nests.

Western burrowing owl

Western burrowing owl is a CDFW Species of Special Concern that occupies open, treeless areas within grassland, low-density scrub, and desert biomes. This species generally inhabits gently sloping areas, characterized by low, sparse vegetation, and is often associated with high densities of burrowing mammals (Poulin et al. 2011). Western burrowing owl often uses relatively disturbed areas such as agricultural fields, golf courses, cemeteries, and vacant urban lots in addition to natural breeding habitats. Nests are most often in fossorial animal burrows, such as California ground squirrel or American badger, but atypical nests such as culverts or rubble piles may also be used. Nest sites are typically selected in an area with a high density of burrows.

There are nine occurrences within five miles of the study area, with the closest occurrence approximately 1.95 miles to the south. Suitable habitat is present throughout the proposed annexation within the nonnative annual grassland. Suitable burrows were observed throughout the annexation area. This species is known to occur throughout the region and is determined to have a moderate potential to occur within the study area.

Swainson's hawk

The Swainson's hawk is listed as a state threatened species. The historical breeding range of Swainson's hawk in California included the Great Basin, Sacramento and San Joaquin Basins, the coast from Marin County to San Diego County, and scattered sites in the Mojave and Colorado Deserts (England et al., 1997). The species continues to breed across its entire historical range, but in significantly lower numbers than historically. This species is often found nesting in trees associated with scattered rural residences, particularly in relation to grasslands or dry-land grain fields. Throughout its range the species nest almost exclusively in trees, typically on the edges of woodland adjacent to grass or shrubland habitat (England et al. 1997).

There are several records of Swainson's hawks nesting within five miles of the study area, last recorded in 2013. No Swainson's hawks were observed during the reconnaissance survey. There is suitable nesting and foraging habitat within the proposed annexation. The nesting habitat is limited to eucalyptus trees and ornamental trees within the low-density housing. Therefore, Swainson's hawk has a moderate potential to forage and nest within the proposed annexation.

White-tailed kite

White-tailed kite is a CDFW fully protected species. A yearlong resident in coastal and valley lowlands, the species inhabits a wide range of habitats, mostly in cismontane California. The species prefers trees with dense canopies for cover. Their diet consists mostly of voles and other small, diurnal mammals, but the species occasionally feeds on birds, insects, reptiles, and amphibians. Typical foraging habitat is undisturbed, open grasslands, meadows, farmlands, and emergent wetlands. Nesting is typically near top of dense oak, willow, or other tree stands, located near foraging areas. Preferentially selects herbaceous lowlands with a range of woodland structure, and high density of voles (Zeiner et al. 1990), and substantial groves of dense, broad-leafed deciduous trees for nesting and roosting (Zeiner et. al. 1990).

The CNDDB contains no occurrence records for white-tailed kite within five miles of the proposed annexation. The grassland areas within the proposed annexation provide foraging habitat, and suitable nesting habitat is present in the proposed annexation area. Furthermore, birding records on eBird (eBird 2022) contain multiple records for white-tailed kite within 5 miles of the project site.

4.1.3 Other Protected Species

Nesting Birds

Non-game migratory birds protected under CFGC Section 3503 have the potential to breed throughout the proposed annexation. Native avian species common in grasslands, landscaping, developed and ruderal areas have the potential to breed and forage throughout the proposed annexation. Species of birds common to the area that typically occur in the region, such as California scrub jay (*Aphelocoma californica*), black phoebe (*Sayornis nigricans*), Anna's hummingbird (*Calypte anna*), house finch (*Haemorhous mexicanus*), American crow (*Corvus brachyrhynchos*), Brewer's blackbird (*Euphagus cyanocephalus*), and other common California native bird species are likely to utilize the proposed annexation for nesting. Nesting by a variety of common birds protected by CFGC Section 3503 could occur in virtually any location throughout the project site.

4.2 Sensitive Natural Communities and Critical Habitat

Sensitive Natural Communities

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in CNDDB. Sensitive natural communities included in the CNDDB follow the original methodology according to "Preliminary Descriptions of the Terrestrial Natural Communities of California" (Holland 1986). The methodology for determining sensitivity continues to be revised and is now based on MCV2 (Sawyer et al. 2009). Communities considered sensitive by CDFW are published in the California Sensitive Natural Communities List (CDFW 2021).

Five sensitive natural communities are known to occur within the twelve-quadrangle search area; coastal brackish marsh, northern claypan vernal pool, northern coastal salt marsh, northern vernal pool, and serpentine bunchgrass, none of which were observed in the project site during the field reconnaissance survey.

Critical Habitat

Critical habitat for green sturgeon (*Acipenser medirostris*), chinook salmon (*Oncorhynchus tshawytscha*), steelhead (*Oncorhynchus mykiss irideus*), western snowy plover (*Charadrius alexandrinus nivosus*), Contra Costa goldfields (*Lasthenia conjugens*), northern spotted owl (*Strix occidentalis caurina*), vernal pool fairy shrimp (*Branchinecta lynchi*), California red-legged frog (*Rana draytonii*), delta smelt (*Hypomesus transpacificus*), Alameda whipsnake (*Masticophis lateralis euryxanthus*), and soft birds-beak (*Chloropyron molle ssp. molle*) occurs within the twelve-quadrangle search area. However, the proposed annexation does not occur within federally designated critical habitat for any of these species (USFWS 2022b).

4.3 Jurisdictional Waters and Wetlands

As noted in Section 3.1.2, *Watershed and Drainages*, and Section 3.2, *Vegetation and Other Land Cover*, North Slough and potentially jurisdictional features occur within the proposed annexation. The above-described features are potentially subject to USACE, RWQCB, and CDFW oversight. Even though North Slough and other potentially jurisdictional features were not wetted at the time of the site survey, they have a direct hydrologic connection to the Pacific Ocean (a traditional navigable water as defined by USACE). The USACE is expected to assert jurisdiction under Section 404 of the Clean Water Act (CWA) over stream, lake, and wetland features to the ordinary high-water mark, and to the edge of those wetlands with all three criteria that define federal wetlands: hydric soils, hydrophytic vegetation, and wetland hydrology. The RWQCB also has jurisdiction over waters of the U.S. under Section 401 of the CWA. The RWQCB may also assert jurisdiction over waters of the State under the Porter-Cologne Water Quality Control Act.

The CDFW has jurisdiction over lakes, streams, and associated riparian areas under the CGFC Section 1600 et seq. The CDFW has traditionally regulated activities within the bed and bank of lakes and streams, extending to the top of bank or edge of the riparian dripline, under its Lake and Streambed Alteration Program. The CDFW may also regulate activities conducted adjacent to but outside these areas, if the activity results in a substantial alteration of the stream or lakebed downslope of the activity, such as through placement of materials that wash into a water body.

4.4 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats within the link do not necessarily need to be the same as the habitats that are being linked. Rather, the link merely needs to contain sufficient cover and forage to allow temporary

inhabitation by ground-dwelling species. Typically, habitat linkages are contiguous strips of natural areas, though dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending upon the species using a corridor, specific physical resources (such as rock outcroppings, vernal pools, or oak trees) may need to be located within the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time.

Wildlife movement corridors can be both large and small scale. One essential connectivity area (ECA) is mapped by the California Essential Habitat Connectivity Project along the eastern border of the proposed annexation area (Spencer et.al 2010). The corridor connects natural landscape blocks east of American Canyon along the Howell Mountain range. From the hills north of the cities of Vallejo and Benicia it extends northwest, parallel with Napa Valley to the Lake County border. This ECA may serve as a movement corridor for the state provisionally protected Southern California/Central Coast ESU of mountain lion. CDFW characterizes the value of ECAs based on permeability to wildlife movements. As mapped in BIOS, the edges of the nearest connectivity area become increasingly less permeable as they extend toward American Canyon.

4.5 Resources Protected by Local Policies and Ordinances

The American Canyon General Plan (1994) includes a Natural and Historic & Cultural Resources Element for the long-term preservation of open space and natural resources. Goal 8, objectives 8.1 through 8.9 and the associated policies address the conservation of listed species, critical habitats, and the avoidance of significant impacts to biological resources. These goals and objectives protect and preserve the significant habitats, plants and wildlife that exist within the City of American Canyon and its planning area.

4.6 Habitat Conservation Plans

The proposed annexation is not located within an area with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

5 Impact Analysis and Mitigation Measures

This impact analysis is based on a review of existing biological conditions within the proposed annexation area. Identification of sensitive resources at this early stage can support avoidance and/or minimization of potential impacts to sensitive biological resources by providing baseline information. Potential impacts to special status species due to development within the proposed annexation area and any adjacent staging/mobilization areas will be determined during project development. Impacts to sensitive biological resources are analyzed accordingly and are not considered as permanent or temporary impacts to the entire annexation area. Potential for the project to result in significant impacts to special status biological resources is addressed below.

5.1 Special-Status Species

The proposed project would have a significant effect on biological resources if it would:

a) *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 or U.S. Fish and Wildlife Service.*

A total of 54 animal and 73 special status plant species are known to occur within the 12 quad search area. Of these species three have a moderate or greater potential to occur within the proposed annexation. The three species that may occur include western burrowing owl, Swainson's hawk, and white-tailed kite. Nesting migratory birds may occur within the proposed annexation as well. Migratory birds will nest within a variety of habitats such as gravel, grasses and bushes or trees. Direct impacts to all these species from projects facilitated by the proposed annexation could include injury or mortality from construction activity, or nest abandonment from noise, dust, and other project activities. The increased density may also increase the amount of disturbance and remove potential breeding habitat. With implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4, impacts from the project on special status species, nesting birds, and associated habitats would be mitigated to a less than significant level.

Mitigation Measures

BIO-1 Site-Specific Biological Resources Assessment

The City shall implement the following measures during environmental review of future development within the project site. On a project-by-project basis, a preliminary biological resource screening shall be performed to determine whether a specific project has the potential to impact biological resources. If it is determined that the project has no potential to impact biological resources, no further action is required. If the project would have the potential to impact biological resources, prior to construction, a qualified biologist shall conduct a biological resources assessment (BRA) or similar type of study to document the existing biological resources within the project footprint plus an appropriate buffer determined by a qualified biologist and to determine the potential impacts to those resources. The BRA shall evaluate the potential for impacts to all sensitive biological resources including, but not limited to special-status species, nesting birds, wildlife movement, sensitive plant communities/critical habitat and other resources judged to be sensitive by local, state, and/or federal agencies. Pending the results of the BRA, design alterations,

further technical studies (i.e., protocol surveys) and/or consultations with the USFWS, CDFW and/or other local, state, and federal agencies may be necessary. The City shall review and approve the BRA prior to project approval.

BIO-2 Pre-construction Surveys for Swainson's Hawk, Other Raptors and Nesting Birds

Ground disturbance and vegetation removal activities shall be restricted to the non-breeding season (September 16 to January 31), when feasible. If construction activities occur during the nesting bird season (February 1 to September 15), the following mitigation measures are recommended to reduce impacts to Swainson's hawk, protected raptor species, and other nesting birds protected by the MBTA and CFGC.

A qualified biologist shall conduct surveys for Swainson's hawk between January 1 and March 20. A preconstruction survey for other raptors and nesting birds shall be conducted no more than seven days prior to initiation of ground disturbance and vegetation removal. The survey shall be conducted within the project site and include a 150-foot buffer for passerines, 500-foot buffer for other raptors, and 0.5 mile buffer for active Swainson's hawk nests. The surveys shall be conducted by a biologist familiar with the identification of avian species known to occur in the region. It is recommended that surveys follow the Swainson's Hawk Technical Advisory Committee's Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. If a Swainson's hawk or white-tailed kite nest is found, the biologist shall set up appropriate buffers in consultation with CDFW.

If the nesting bird survey results are negative, no further action is required. If nests are found, the biologist shall determine and demarcate an appropriate avoidance buffer with high visibility material. For Swainson's hawk nests, the biologist shall establish an avoidance buffer of up to 0.5 mile based on the nest location in relation to the construction activity, the line-of-sight from the nest to the construction activity, and observed hawk behavior at the nest.

The qualified biologist shall notify all construction personnel of the buffer zones and to avoid entering buffer zones during the nesting season. No ground disturbing activities shall occur within the buffer until the biologist has confirmed that breeding/nesting is complete, and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the biologist.

Results of the preconstruction nesting bird survey shall be submitted to the City in a brief letter report no more than 30 days after completion of the survey.

BIO-3 Pre-construction Surveys for Western Burrowing Owl

Prior to ground disturbance activities, a qualified biologist shall conduct pre-construction clearance surveys within suitable natural habitats and ruderal areas throughout the project site, to confirm the presence/absence of active western burrowing owl burrows. The surveys shall be consistent with the recommended survey methodology provided by CDFW's Staff Report on Burrowing Owl Mitigation. Clearance surveys shall be conducted within 30 days prior to construction and ground disturbance activities. If no western burrowing owls are observed, no further actions are required. If western burrowing owls are detected during the pre-construction clearance surveys, the following measures shall apply:

- Avoidance buffers during the breeding and non-breeding season shall be implemented in accordance with the CDFW's Staff Report on Burrowing Owl Mitigation minimization mitigation measures.

- If avoidance of western burrowing owls is not feasible, then additional measures such as passive relocation during the nonbreeding season and construction buffers of 200 feet during the breeding season shall be implemented, in consultation with CDFW. In addition, a Western Burrowing Owl Exclusion Plan and Mitigation and Monitoring Plan shall be developed by a qualified biologist in accordance with the CDFW (2012) and Burrowing Owl Consortium (1993).

Project applicants shall submit evidence of clearance surveys, avoidance buffers or additional measures to the City as required.

BIO-4 Worker Environmental Awareness Program

Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend Worker Environmental Awareness Program training, conducted by a qualified biologist, to aid workers in recognizing special status resources that may occur in the project site. The program shall include identification of the sensitive species and habitats, a description of the regulatory status and general ecological characteristics of sensitive resources, and review of the limits of construction and mitigation measures required to reduce impacts to biological resources within the work area. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employers, and other personnel involved with construction. All employees shall sign a form documenting attendance at the Worker Environmental Awareness Program and that they understand the information presented to them. The form shall be submitted to the City to document compliance.

5.2 Sensitive Natural Communities and Critical Habitat

The proposed project would have a significant effect on biological resources if it would:

b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.

The northern portion of the proposed annexation is bisected by North Slough, flowing north to south. The slough and the rest of the project site do not contain riparian or other sensitive natural communities even though they are potentially jurisdictional and subject to USACE, RWQCB, and CDFW oversight. Development within the proposed annexation would not have a substantial adverse impact on any riparian habitat or other sensitive natural community; therefore, impacts would be less than significant.

5.3 Jurisdictional Waters and Wetlands

The proposed project would have a significant effect on biological resources if it would:

c) 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.

The northern portion of the project site includes the North Slough, which is characterized as unvegetated waters and are potentially state and federally jurisdictional. In addition, the area east of the project site includes areas that drain to North Slough and may be potentially jurisdictional. The potential jurisdictional features have been historically diverted from their natural topographic

drainages (i.e., the typical gradient being downhill and flowing north to south or east to west) and redirected through a system of culverts and ditches onto and through the project site, flowing into North Slough. There are several components of the project that cross these potentially jurisdictional waters, including the following:

- A portion of the Newell Drive Extension and areas with new pre-zoning (Residential Estate, Paoli Light Industrial, Paoli Light Industrial: Commercial Overlay) would cross the North Slough.
- A portion of the Newell Drive Extension along the northern portion of the annexation area would cross an area that drains to North Slough.
- A portion of the Newell Drive Extension along the northern portion of the annexation area would cross an area that drains to North Slough.

No development is being proposed in the areas pre-zoned as Residential Estate. As such, there would be no impact to the portion of North Slough in the Residential Estate pre-zoning. Future development could occur in the proposed Paoli Light Industrial and Paoli Light Industrial: Commercial Overlay pre-zoning. Construction of future development, including upgrades to utilities and stormwater drainage, may require work within the North Slough and the area that drains to North Slough, including dredge or fill within potential jurisdictional waters. The southern potential jurisdictional feature has been substantially diverted from its natural topographic course (i.e., the typical gradient being downhill and flowing north to south or east to west) and redirected through a system of culverts and ditches, and ultimately through the project site toward North Slough. Because the project could impact these potentially jurisdictional features, impacts would be potentially significanty.

In addition, the City has identified that the Newell Drive Extension would align with the northern boundary of the project site. The Newell Drive Extension would cross the North Slough with a clear span overcrossing. There would be no impact to the North Slough due to the Newell Drive Extension. A section of the northern potential jurisdictional feature would be directly impacted due to the road alignment. The northern potential jurisdictional feature also contains concentrated runoff that is diverted through the project site. Because the northern potential jurisdictional feature is a potentially jurisdictional water, impacts would be potentially significant.

For development that would occur in these areas, permitting pursuant to Section 404/401 of the CWA Section, and Section 1600 *et seq.* of the CFGC would be required. Actual jurisdictional areas are determined by the State and federal authorities at the time that permits are requested, and the agencies are responsible for describing avoidance, minimization, and mitigation measures, if required. Mitigation Measure BIO-5 would require that future applicants prepare an aquatic resources delineation and preliminary jurisdictional determination report, either to ensure avoidance of potentially jurisdictional waters or for submittal to the agencies for verification of their jurisdictions. Mitigation Measure BIO-6 would require setbacks around the North Slough to avoid impacts to that feature. Nonetheless, even with these measures, there is still the potential that the project could result in the permanent loss of a jurisdictional feature. As such, Mitigation Measure BIO-7 would require mitigation to compensate for the loss of jurisdictional water features.

This impact would be less than significant with mitigation.

Mitigation Measures

BIO-5 Aquatic Resources Delineation

A qualified biologist shall complete an aquatic resources delineation survey that establishes the extent of the waters of the U.S. and State and identify the potential jurisdictional limits of USACE, RWQCB, and CDFW. The delineation shall be conducted in accordance with the requirement set forth by each agency and the results presented in a report that shall be submitted to the City, USACE, RWQCB, and CDFW, as appropriate, for review and approval. If the USACE asserts its authority, then a permit pursuant to Section 404 of the CWA would be required. If jurisdictional areas are expected to be impacted, then the RWQCB would require a Section 401 Water Quality Certification and/or Waste Discharge Requirement permit (depending upon whether the feature falls under federal jurisdiction or not). If CDFW asserts its jurisdictional authority, then a Lake or Streambed Alteration Agreement pursuant to Section 1600 et seq. of the CFGC would also be required prior to construction within the areas of CDFW jurisdiction.

BIO-6 General Avoidance and Minimization

Development shall be designed to avoid potentially jurisdictional features identified in aquatic resources delineation reports (Mitigation Measure BIO-4), to the extent feasible. No development shall occur within 50 feet of the top of bank for North Slough. Projects with potentially jurisdictional features shall provide the City with a report detailing how all identified aquatic features will be avoided, including groundwater draw down, prior to project approval.

BIO-7 Restoration for Impacts to Waters and Wetlands

If the project cannot be designed to avoid impacts to waters and wetlands (as described in Mitigation Measure BIO-6), then impacts shall be fully mitigated at an appropriate ratio, as determined by a qualified biologist and in accordance with regulatory agency requirements. Mitigation can be achieved through the setting aside or acquisition and in-perpetuity management of similar habitat on-site (this can include restoration of jurisdictional features within the project site) or as close to the impact habitat as possible. Mitigation lands must be placed into a conservation easement or other covenant restricting future development. A mitigation and monitoring plan consistent with regulatory agency requirements shall be developed by a qualified biologist and submittal to the regulatory agency overseeing the project for approval. Alternatively, mitigation shall be accomplished through purchase of credits from an approved mitigation bank. Mitigation lands or in lieu funding sufficient to acquire lands should provide habitat at a minimum 1:1 ratio for impacted lands, comparable to habitat to be impacted by individual project activity. The City shall review and approve the plan before submittal to the agencies.

5.4 Wildlife Movement

The proposed project would have a significant effect on biological resources if it would:

d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

The project site is not within a designated ECA and does not function as a significant regional or local wildlife movement corridor. North Slough, which bisects the northern portion of the project

site may provide a natural movement corridor for wildlife through the project site. As such impacts on the North Slough would result in potentially significant impacts on wildlife movement. Nonetheless, impacts on North Slough would be avoided by implementing Mitigation Measure BIO-6. The Newell Drive Extension over North Slough is unlikely to impact the movement of wildlife through North Slough because it would be an overcrossing. Wildlife movement is likely to be concentrated along North Slough; therefore, the project would be unlikely to impact the movement of wildlife across the landscape as the overcrossing would provide wildlife with an unobstructed natural movement corridor.

Filling of areas that drain to North Slough would be unlikely to impact the movement of wildlife beyond the project area. This is because the existing Union Pacific Railroad tracks bisect the area that drains to North Slough. This area, therefore, does not serve as a significant movement corridor for wildlife. As such, the impacts on wildlife movement from filling the area that drains to North Slough would be less than significant.

With implementation of Mitigation Measure BIO-6, impacts to wildlife movement would be minimized through the protection of North Slough, which can be used by wildlife for movement. This impact would be less than significant after mitigation.

5.5 Resources Protected by Local Policies and Ordinances

The proposed project would have a significant effect on biological resources if it would:

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

The project, when annexed would fall under the jurisdiction of the City of American Canyon, which provides protection for biological resources through the implementation of its General Plan and Zoning Code. The American Canyon General Plan includes policies to guide decisions on future growth, development, and conservation of resources. This includes the Natural and Historic/Cultural Resources Element, which aim to preserve the natural and scenic resources (American Canyon 1994).

The Natural and Historic/Cultural Resources Element includes an objective to protect natural drainages (Objective 8.3) and a policy to review proposed developments in wetlands, require preservation of watercourses as feasible, and require mitigation for impacts on waters (Policy 8.3.1). As described in Impact BIO-3, there would be a potentially significant impact on waters (i.e., potentially jurisdictional features); however, these impacts would be mitigated to a less than significant level through the implementation of Mitigation Measures BIO-5, BIO-6, and BIO-7. The project could potentially result in a conflict with a policy protecting biological resources; however, implementation of Mitigation Measures BIO-5, BIO-6, and BIO-7 would ensure that the project is consistent with the policy and impacts would be less than significant with mitigation.

Impacts would be less than significant with mitigation.

5.6 Habitat Conservation Plans

The proposed project would have a significant effect on biological resources if it would:

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

There are no habitat conservation plans or natural community conservation plans adopted in the proposed annexation area. Therefore, the proposed annexation and future specific development projects would not conflict with any such plans. No impact would occur.

6 Limitations, Assumptions, and Use Reliance

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis, or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

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Attachment A

Regulatory Setting

Regulatory Setting

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include the following:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States)
- U.S. Fish and Wildlife Service (federally listed species and migratory birds)
- National Marine Fisheries Service (marine wildlife and anadromous fishes)
- San Francisco Bay Regional Water Quality Control Board (waters of the State)
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; nesting birds, marine resources)
- California Coastal Commission
- City of American Canyon General Plan (1994)

United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters.

Clean Water Act Section 404

Congress enacted the Clean Water Act (CWA) "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 of the CWA authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites."

Section 502 of the CWA further defines "navigable waters" as "waters of the United States, including the territorial seas." "Waters of the United States" are broadly defined at 33 CFR Part 328.3 to include navigable waters, perennial and intermittent streams, lakes, rivers, ponds, as well as wetlands, marshes, and wet meadows. In recent years, the USACE and US Environmental Protection Agency (USEPA) have undertaken several efforts to modernize their regulations defining "waters of the United States" (e.g., the 2015 Clean Water Rule and 2020 Navigable Waters Protection Rule), but these efforts have been frustrated by legal challenges which have invalidated the updated regulations. Thus, the agencies' longstanding definition of "waters of the United States," which dates from 1986, remains in effect albeit with supplemental guidance interpreting applicable court decisions as described below.

Waters of the U.S.

In summary, USACE and USEPA regulations define "waters of the United States" as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    i. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    iii. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in items 1-6 above.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the USEPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the United States.

The lateral limits of USACE jurisdiction in non-tidal waters is defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3(e)). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4 (c)). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 FR 41217).

Wetlands

The USACE defines wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3). The USACE’s delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The following is a discussion of each of these parameters.

Hydrophytic Vegetation

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exerts a controlling influence on the plant species present. Plant species are assigned

wetland indicator status according to the probability of their occurring in wetlands. More than fifty percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USACE published the National Wetland Plant List (USACE 2018), which separates vascular plants into the following four basic categories based on plant species frequency of occurrence in wetlands:

- **Obligate Wetland (OBL).** Almost always occur in wetlands
- **Facultative Wetland (FACW).** Usually occur in wetlands, but occasionally found in non-wetlands
- **Facultative (FAC).** Occur in wetlands or non-wetlands
- **Facultative Upland (FACU).** Usually occur in non-wetlands, but may occur in wetlands
- **Obligate Upland (UPL).** Almost never occur in wetlands

The USACE considers OBL, FACW and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the United States Fish and Wildlife Service's list is assumed to be an upland species, almost never occurring in wetlands. In addition, an area needs to contain at least 5% vegetative cover to be considered as a vegetated wetland.

Hydric Soils

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. Field indicators of wetland soils include observations of ponding, inundation, saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron), gleying (indicates reducing conditions by a blue-grey color), or accumulation of organic material. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

Wetland Hydrology

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by field indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

Applicable Case Law and Agency Guidance

The USACE's regulations defining "waters of the United States" have been subject to legal interpretation, and two influential Supreme Court decisions have narrowed the definition to exclude certain classes of waters that bear an insufficient connection to navigable waters. In *Solid Waste Agency of Northern Cook County v. Army Corps of Engineers* (2001), the United States Supreme Court stated that the USACE's CWA jurisdiction does not extend to ponds that "are not adjacent to open water." In reaching its decision, the Court concluded that the "Migratory Bird Rule," which served as the basis for the USACE's asserted jurisdiction, was not supported by the CWA. The Migratory Bird Rule extended CWA jurisdiction to intrastate waters "which are or would be used as habitat by birds protected by Migratory Bird Treaties or which are or would be used as habitat by

other migratory birds which cross state lines…" The Court was concerned that application of the Migratory Bird Rule resulted in "reading the term 'navigable waters' out of the statute. Highlighting the language of the CWA to determine the statute's jurisdictional reach, the Court stated, "the term 'navigable' has at least the import of showing us what Congress had in mind as its authority for enacting the CWA: its traditional jurisdiction over waters that were or had been navigable in fact or which could reasonably be so made." This decision stands for the proposition that non-navigable isolated, intrastate waters are not waters of the United States and thus are not jurisdictional under the CWA.

In 2006 the United States Supreme Court decided *Rapanos v. United States* and *Carabell v. United States* (collectively "Rapanos"), which were consolidated cases determining the extent of CWA jurisdiction over waters that carry only an infrequent surface flow. The court issued no majority opinion in Rapanos. Instead, the justices authored five separate opinions including the "plurality" opinion, authored by Justice Scalia (joined by three other justices), and a concurring opinion by Justice Kennedy. To guide implementation of the decision, the USACE and USEPA issued a joint guidance memorandum ("Rapanos Guidance Memorandum") in 2008 stating that "regulatory jurisdiction under the CWA exists over a water body if either the plurality's or Justice Kennedy's standard is satisfied."

According to the plurality opinion in Rapanos, "the waters of the United States include only relatively permanent, standing or flowing bodies of water" and do not include "ordinarily dry channels through which water occasionally or intermittently flows." In addition, while all wetlands that meet the USACE definition are considered adjacent wetlands, only those adjacent wetlands that have a continuous surface connection because they directly abut the tributary (e.g., they are not separated by uplands, a berm, dike, or similar feature) are considered jurisdictional under the plurality standard.

Under Justice Kennedy's opinion, "the USACE's jurisdiction over wetlands depends upon the existence of a significant nexus between the wetlands in question and navigable waters in the traditional sense. Wetlands possess the requisite nexus, and thus come within the statutory phrase 'navigable waters,' if the wetlands, either alone or in combination with similarly situated lands in the region, significantly affect the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable.' When, in contrast, wetlands' effects on water quality are speculative or insubstantial, they fall outside the zone fairly encompassed by the statutory term 'navigable waters.'" Justice Kennedy identified "pollutant trapping, flood control, and runoff storage" as some of the critical functions wetlands can perform relative to other waters. He concluded that, given wetlands' ecological role, "mere adjacency" to a non-navigable tributary was insufficient to establish CWA jurisdiction, and that "a more specific inquiry, based on the significant nexus standard, is therefore necessary."

Interpreting these decisions, and according to the Rapanos Guidance Memorandum, the USACE and USEPA will assert jurisdiction over the following waters:

- Traditional navigable waters;
- Wetlands adjacent to traditional navigable waters;
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months); and,
- Wetlands that directly abut such tributaries.

The USACE and USEPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent;
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent; and,
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

Where a significant nexus analysis is required, the USACE and USEPA will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters; and,
- Significant nexus includes consideration of hydrologic and ecologic factors.

The USACE and USEPA generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow); and,
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States, and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. It is important to note that Section 10 applies only to navigable waters, and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by the USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over “waters of the State,” which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering portions of the CWA.

Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCBs and by the SWRCB for multi-region projects. The process begins when an applicant submits an application to the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. The USACE will then determine a "reasonable period of time" for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, the USACE may determine that Certification has been waived and issue the requested permit. If a Section 401 Certification is issued it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 et seq.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear that the agency will apply the Porter-Cologne Act's requirements to discharges of dredge and fill material as well. The *Procedures* state that they are to be used in issuing CWA Section 401 Certifications and WDRs, and largely mirror the existing review requirements for CWA

Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA's *Section 404(b)(1) Guidelines*. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.

Non-Wetland Waters of the State

The SWRCB and RWQCBs have not established regulations for field determinations of waters of the state except for wetlands currently. In many cases the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Wetland Waters of the State

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

(i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;

(ii) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and

(iii) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) implements several laws protecting the Nation's fish and wildlife resources, including the Endangered Species Act (ESA; 16 United States Code [USC] Sections 153 et seq.), the Migratory Bird Treaty Act (MBTA; 16 USC Sections 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668).

Endangered Species Act

The USFWS and NMFS share responsibility for implementing the ESA. Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in "take" of any threatened or endangered wildlife species, or a threatened or endangered plant species if occurring on federal land, are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the ESA, depending

on the involvement by the federal government in funding, authorizing, or carrying out the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. “Take” under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the ESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

Migratory Bird Treaty Act

The MBTA of 1918 implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The list of migratory bird species protected by the law, in regulations at 50 CFR Part 10.13, is primarily based on bird families and species included in the four international treaties. A migratory bird species is included on the list if it meets one or more of the following criteria:

1. It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments.
2. Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes.
3. New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family.

In 2004, the Migratory Bird Treaty Reform Act limited the scope of the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or ecological processes. The MBTRA requires the USFWS to publish a list of all nonnative, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or U.S. territories is solely the result of intentional or unintentional human-assisted introductions.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the USFWS, from "taking" bald or golden eagles, including their parts (including feathers), nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

"Disturb" means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California and administers several State laws protecting fish and wildlife resources and the habitats upon which they depend.

California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is defined as “Hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (Fish and Game Code sec. 86). This definition does not prohibit indirect harm by way of habitat modification, except where such harm is the proximate cause of death of a listed species. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated. Unlike the federal ESA, CESA’s protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing.

Native Plant Protection Act

The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare, and prohibits the take of listed plant species. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA’s permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Fully Protected Species Laws

The CDFW enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibit take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided. The exception is situations where a Natural Community Conservation Plan (NCCP) is in place that authorizes take of the fully protected species.

Avian Protection Laws

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act.

Protection of Lakes and Streambeds

California Fish and Game Code section 1602 states that it is unlawful for any person to "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake" without first notifying the California Department of Fish and Wildlife (CDFW) of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFG determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain from CDFW a Streambed Alteration Agreement (SAA), which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft SAA. Upon review of the Draft SAA by the applicant, any problematic terms are negotiated with CDFW and a final SAA is executed.

The CDFW has not defined the term “stream” for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
  - References “river,” “stream,” and “lake”
  - References “natural flow”
  - References “bed,” “bank,” and “channel”
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987), which interpreted Section 1602’s use of “stream” to be as defined in common law. The Court indicated that a “stream” is commonly understood to:
  - Have a source and a terminus
  - Have banks and a channel
  - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
  - Represent the depression between the banks worn by the regular and usual flow of the water
  - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
  - Include the land that is covered by the water in its ordinary low stage
  - Include lands below the OHWM

- **CDFW regulations** defining "stream" for other purposes, including sport fishing (14 CCR 1.72) and streambed alterations associated with cannabis production (14 CCR 722(c)(21)), which indicate that a stream:
  - Flows at least periodically or intermittently
  - Flows through a bed or channel having banks
  - Supports fish or aquatic life
  - Can be dry for a period of time
  - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation
- **Guidance documents**, *including A Field Guide to Lake and Streambed Alteration Agreements* (CDFG 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
  - A stream may flow perennially or episodically
  - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
  - Width of a stream course can reasonably be identified by physical or biological indicators
  - A stream may have one or more channels (single thread vs. compound form)
  - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
  - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
  - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic wildlife including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
  - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. Importance of each factor may be weighted based on site-specific considerations and the applicability of the indicators to the streambed at hand.

Local Jurisdiction

American Canyon General Plan

Natural and Historic/Cultural Resources Element

The Natural and Historic/Cultural Resources Element of the American Canyon General Plan sets the guidelines to protect and preserve significant flora and fauna along with significant habitats that exist within the city of American Canyon and its planning area. The objectives of within the natural and historic/cultural resources element facilitates protection of sensitive habitats including vernal

pool, natural drainages and riparian habitats among other habitats. The policies contained within the general plan provide for resource conservation and the appropriate management of development.

Attachment B

Site Photographs



Photograph 1. Annual grassland and nonnative eucalyptus trees within the proposed annexation area.



Photograph 2. Annual grassland and urban structure within the proposed annexation.



Photograph 3. Barn structure in northwest area of proposed annexation area .



Photograph 4. Bridge crossing North Slough.



Photograph 5. Area that drains to North Slough (potential jurisdictional feature to be evaluated).



Photograph 6. Annual grassland within annexation area facing west.



Photograph 7. Ground squirrel burrows within the proposed annexation area .



Photograph 8. Disced annual grassland within the proposed annexation area.

Attachment C

Floral and Faunal Compendium

Plant Species Observed Within the Biological Study Area on August 16, 2022

Scientific Name	Common Name	Native or Introduced
Shrubs		
Eucalyptus globulus	blue-gum eucalyptus	introduced
Ailanthus altissima	tree of heaven	introduced
Quercus agrifolia	coast live oak	native
Pinus pinea	Italian stone pine	introduced
Rubus armeniacus	Himalayan blackberry	introduced
Ulmus sp.	elm	introduced
Washingtonia robusta	Mexican palm	introduced
Olea europaea	olive	introduced
Populus fremontii	cottonwood	native
Baccharis pilularis	coyote brush	native
Herbs		
Centaurea solstitialis	yellow star-thistle	introduced
Malva parviflora	cheeseweed	introduced
Cirsium vulgare	bull thistle	introduced
Croton setigerus	turkey mullein	introduced
Rumex crispus	curly dock	introduced
Foeniculum vulgare	fennel	introduced
Plantago lanceolata	ribwort plantain	introduced
Raphanus sativus	wild radish	introduced
Convolvulus arvensis	field bindweed	introduced
Carduus pycnocephalus	Italian thistle	introduced
Brassica nigra	black mustard	introduced
Trifolium hirtum	rose clover	introduced
Elymus caput-medusae	medusahead	introduced
Lepidium latifolium	pepperweed	introduced
Erigeron canadensis	horseweed	native
Grasses		
Hordeum murinum	false barley	introduced
Avena barbata	slender wild oat	introduced
Phalaris aquatica	Harding grass	introduced
Bromus diandrus	ripgut brome	introduced
Bromus hordeaceus	soft brome	introduced

Wildlife Species Observed Within the Biological Study Area on August 16, 2022

Scientific Name	Common Name	Native or Introduced
Birds		
Buteo jamaicensis	red-tailed hawk	native
Picoides nuttallii	Nuttall's woodpecker	native
Zenaida macroura	mourning dove	native
Columba livia	rock pidgeon	introduced
Falco sparverius	American kestrel	native
Hirundo rustica	barn swallow	native
Mammals		
Otospermophilus beecheyi	California ground squirrel	native
Lepus californicus	black-tailed jackrabbit	native
Canis latrans	coyote	native
Reptiles		
Sceloporus occidentalis	western fence lizard	native

Attachment D

Special Status Species Evaluation Tables

Special Status Plant Species in the Regional Vicinity of the Proposed Annexation

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Allium peninsulare var. *franciscanum* Franciscan onion	None/None G5T2/S2 1B.2	Perennial bulbiferous herb. Cismontane woodland, valley and foothill grassland. Clay, Serpentinite (often), volcanic. Elevations: 170-1000ft. (52-305m.) Blooms (Apr)May-Jun.	Not Expected	Project site is outside the elevation range of the species
Amorpha californica var. *napensis* Napa false indigo	None/None G4T2/S2 1B.2	Perennial deciduous shrub. Broadleafed upland forest, chaparral, cismontane woodland. Openings in forest or woodland or in chaparral. 30-735 m. Elevations: 165-6560ft. (50-2000m.) Blooms Apr-Jul.	Not Expected	Project site is outside the elevation range of the species
Astragalus tener var. *tener* alkali milk-vetch	None/None G2T1/S1 1B.2	Annual herb. Playas, valley and foothill grassland, vernal pools. Alkaline. Elevations: 5-195ft. (1-60m.) Blooms Mar-Jun.	Not Expected	Alkaline soil is not present.
Atriplex persistens vernal pool smallscale	None/None G2/S2 1B.2	Annual herb. Vernal pools. Alkaline vernal pools. Elevations: 35-375ft. (10-115m.) Blooms Jun-Oct.	Not Expected	Vernal pool habitat is not present.
Balsamorhiza macrolepis big-scale balsamroot	None/None G2/S2 1B.2	Perennial herb. Chaparral, cismontane woodland, valley and foothill grassland. Serpentinite (sometimes). Elevations: 150-5100ft. (45-1555m.) Blooms Mar-Jun.	Not Expected	Project site is outside the elevation range of the species
Blennosperma bakeri Sonoma sunshine	FE/SCE G1/S1 1B.1	Annual herb. Valley and foothill grassland, vernal pools. Vernal pools and swales. Elevations: 35-360ft. (10-110m.) Blooms Mar-May.	Not Expected	Suitable habitat is present within the project area; however, because of the grazed and disturbed nature of the project area the species is not expected.
Blepharizonia plumosa big tarplant	None/None G1G2/S1S2 1B.1	Annual herb. Valley and foothill grassland. Clay (usually). Elevations: 100-1655ft. (30-505m.) Blooms Jul-Oct.	Not Expected	Suitable habitat is present within the project area ; however, because of the grazed and disturbed nature of the project area the species is not expected.
Brodiaea leptandra narrow-anthered brodiaea	None/None G3?/S3? 1B.2	Perennial bulbiferous herb. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. Volcanic. Elevations: 360-3000ft. (110-915m.) Blooms May-Jul.	Not Expected	Project site is outside the elevation range of the species

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Calochortus pulchellus Mt. Diablo fairy-lantern	None/None G2/S2 1B.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. On wooded and brushy slopes. Elevations: 100-2755ft. (30-840m.) Blooms Apr-Jun.	Not Expected	Woodland habiat is not present within the project area.
Carex lyngbyei Lyngbye's sedge	None/None G5/S3 2B.2	Perennial rhizomatous herb. Marshes and swamps. Elevations: 0-35ft. (0-10m.) Blooms Apr-Aug.	Not Expected	Project site is outside the elevation range of the species. Suitable wetland habitat is not present within the project area.
Castilleja affinis var. *neglecta* Tiburon paintbrush	FE/SCT G4G5T1T2/S1S2 1B.2	Perennial herb (hemiparasitic). Valley and foothill grassland. Rocky serpentine sites. Elevations: 195-1310ft. (60-400m.) Blooms Apr-Jun.	Not Expected	Project site is outside the elevation range of the species
Ceanothus confusus Rincon Ridge ceanothus	None/None G1/S1 1B.1	Perennial evergreen shrub. Chaparral, cismontane woodland, closed-cone coniferous forest. Serpentinite (sometimes), volcanic (sometimes). Elevations: 245-3495ft. (75-1065m.) Blooms Feb-Jun.	Not Expected	Project site is outside the elevation range of the species
Ceanothus purpureus holly-leaved ceanothus	None/None G2/S2 1B.2	Perennial evergreen shrub. Chaparral, cismontane woodland. Rocky, volcanic. Elevations: 395-2100ft. (120-640m.) Blooms Feb-Jun.	Not Expected	Woodland and chaparral habitat is not present within the project area.
Ceanothus sonomensis Sonoma ceanothus	None/None G2/S2 1B.2	Perennial evergreen shrub. Chaparral. Sandy, serpentine or volcanic soils. Elevations: 705-2625ft. (215-800m.) Blooms Feb-Apr.	Not Expected	Project site is outside the elevation range of the species
Centromadia parryi ssp. *congdonii* Congdon's tarplant	None/None G3T1T2/S1S2 1B.1	Annual herb. Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. Elevations: 0-755ft. (0-230m.) Blooms May-Oct(Nov).	Low Potential	Due to the grazed and disturbed nature of the project area the species is not likely to be present.
Centromadia parryi ssp. *parryi* pappose tarplant	None/None G3T2/S2 1B.2	Annual herb. Chaparral, coastal prairie, marshes and swamps, meadows and seeps, valley and foothill grassland. Alkaline (often). Elevations: 0-1380ft. (0-420m.) Blooms May-Nov.	Low Potential	Due to the grazed and disturbed nature of the project area the species is not likely to be present.
Chloropyron molle ssp. *molle* soft salty bird's-beak	FE/SCR G2T1/S1 1B.2	Annual herb (hemiparasitic). Marshes and swamps. In coastal salt marsh with Distichlis, Salicornia, Frankenia, etc. Elevations: 0-10ft. (0-3m.) Blooms Jun-Nov.	Not Expected	Saltmarsh habitat is not present within the project area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Cicuta maculata var. *bolanderi* Bolander's water-hemlock	None/None G5T4T5/S2? 2B.1	Perennial herb. Marshes and swamps. In fresh or brackish water. Elevations: 0-655ft. (0-200m.) Blooms Jul-Sep.	Not Expected	Marsh or swamp habitat is not present within the project area.
Cirsium hydrophilum var. *hydrophilum* Suisun thistle	FE/None G2T1/S1 1B.1	Perennial herb. Marshes and swamps. Grows with Scirpus, Distichlis near small watercourses within saltmarsh. Elevations: 0-5ft. (0-1m.) Blooms Jun-Sep.	Not Expected	Project site is outside the elevation range of the species, and marsh and swamp habitat is not present.
Dirca occidentalis western leatherwood	None/None G2/S2 1B.2	Perennial deciduous shrub. Broadleafed upland forest, chaparral, cismontane woodland, closed-cone coniferous forest, north coast coniferous forest, riparian forest, riparian woodland. On brushy slopes, mesic sites; mostly in mixed evergreen and foothill woodland communities. Elevations: 80-1395ft. (25-425m.) Blooms Jan-Mar(Apr).	Not Expected	No woodland and forest habitat is present within the project site. Would have been observed if present.
Downingia pusilla dwarf downingia	None/None GU/S2 2B.2	Annual herb. Valley and foothill grassland, vernal pools. Vernal lake and pool margins with a variety of associates. In several types of vernal pools. Elevations: 5-1460ft. (1-445m.) Blooms Mar-May.	Not Expected	Vernal pool habitat is not present.
Erigeron greenei Greene's narrow-leaved daisy	None/None G3/S3 1B.2	Perennial herb. Chaparral. Serpentine and volcanic substrates, generally in shrubby vegetation. Elevations: 260-3295ft. (80-1005m.) Blooms May-Sep.	Not Expected	Project site is outside the elevation range of the species, and serpentine substrate is not present within the project area.
Eriogonum truncatum Mt. Diablo buckwheat	None/None G1/S1 1B.1	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Dry, exposed clay or sandy substrates. Elevations: 10-1150ft. (3-350m.) Blooms Apr-Sep(Nov-Dec).	Not Expected	The project area is outside the known range of the species.
Eryngium jepsonii Jepson's coyote-thistle	None/None G2/S2 1B.2	Perennial herb. Valley and foothill grassland, vernal pools. Clay. Elevations: 10-985ft. (3-300m.) Blooms Apr-Aug.	Low Potential	Grassland habitat is present however, the history of grazing and disturbance precludes this species from the project area.
Extriplex joaquinana San Joaquin spearscale	None/None G2/S2 1B.2	Annual herb. Chenopod scrub, meadows and seeps, playas, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with Distichlis spicata, Frankenia, etc. Elevations: 5-2740ft. (1-835m.) Blooms Apr-Oct.	Not Expected	Suitable wetland and alkali habitat is not present within the project area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Fritillaria liliacea fragrant fritillary	None/None G2/S2 1B.2	Perennial bulbiferous herb. Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland. Often on serpentine; various soils reported though usually on clay, in grassland. Elevations: 10-1345ft. (3-410m.) Blooms Feb-Apr.	Low Potential	Grassland habitat is present however, the history of grazing and disturbance precludes this species from the project area.
Helianthella castanea Diablo helianthella	None/None G2/S2 1B.2	Perennial herb. Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Azonal soils, Partial shade (often), rocky (usually). Elevations: 195-4265ft. (60-1300m.) Blooms Mar-Jun.	Low Potential	Grassland habitat is present however, the history of grazing and disturbance reduces the likelihood of this species being in the project area.
Hemizonia congesta ssp. *congesta* congested-headed hayfield tarplant	None/None G5T2/S2 1B.2	Annual herb. Valley and foothill grassland. Grassy valleys and hills, often in fallow fields; sometimes along roadsides. Elevations: 65-1835ft. (20-560m.) Blooms Apr-Nov.	Low Potential	Suitable habitat is present. However, the most recent record within the project search area is from 1931. Additionally, the history of grazing and disturbance reduces the likelihood of this species being in the project area.
Hesperolinon bicarpellatum two-carpellate western flax	None/None G2/S2 1B.2	Annual herb. Chaparral. Serpentine barrens at edge of chaparral. Elevations: 195-3295ft. (60-1005m.) Blooms (Apr)May-Jul.	Not Expected	Project site is outside the elevation range of the species, no chapparal or serpentine barrens present within the project area.
Hesperolinon breweri Brewer's western flax	None/None G2/S2 1B.2	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Often in rocky serpentine soil in serpentine chaparral and serpentine grassland. Elevations: 100-3100ft. (30-945m.) Blooms May-Jul.	Not Expected	Serpentine soil is not present within the project area.
Horkelia tenuiloba thin-lobed horkelia	None/None G2/S2 1B.2	Perennial herb. Broadleafed upland forest, chaparral, valley and foothill grassland. Sandy soils; mesic openings. Elevations: 165-1640ft. (50-500m.) Blooms May-Jul(Aug).	Not Expected	Project site is outside the elevation range of the species. Suitable forest, and chaparral habitat is not present within the project area.
Isocoma arguta Carquinez goldenbush	None/None G1/S1 1B.1	Perennial shrub. Valley and foothill grassland. Alkaline soils, flats, lower hills. On low benches near drainages and on tops and sides of mounds in swale habitat. Elevations: 5-65ft. (1-20m.) Blooms Aug-Dec.	Not Expected	Alkaline soils are not present within the project area. Would have been observed if present
Lasthenia conjugens Contra Costa goldfields	FE/None G1/S1 1B.1	Annual herb. Cismontane woodland, playas, valley and foothill grassland, vernal pools. Vernal pools, swales,	Low Potential	Grassland habitat is present; however, there are no vernal pools, swales or appropriate depressional areas present.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
		low depressions, in open grassy areas. Elevations: 0-1540ft. (0-470m.) Blooms Mar-Jun.		
Lathyrus jepsonii var. *jepsonii* Delta tule pea	None/None G5T2/S2 1B.2	Perennial herb. Marshes and swamps. In freshwater and brackish marshes. Often found with Typha, Aster lentus, Rosa californica, Juncus spp., Scirpus, etc. Usually on marsh and slough edges. Elevations: 0-15ft. (0-5m.) Blooms May-Jul(Aug-Sep).	Not Expected	Suitable wetland habitat is not present within the project area, outside the .
Legenere limosa legenere	None/None G2/S2 1B.1	Annual herb. Vernal pools. In beds of vernal pools. 1-. Elevations: 5-2885ft. (1-880m.) Blooms Apr-Jun.	Not Expected	Suitable vernal pool habitat is not present within the project area.
Leptosiphon jepsonii Jepson's leptosiphon	None/None G2G3/S2S3 1B.2	Annual herb. Chaparral, cismontane woodland, valley and foothill grassland. Open to partially shaded grassy slopes. On volcanics or the periphery of serpentine substrates. Elevations: 330-1640ft. (100-500m.) Blooms Mar-May.	Not Expected	Project site is outside the elevation range of the species. Suitable volcanic or serpentine substrate is not present within the project area.
Lilaeopsis masonii Mason's lilaeopsis	None/SCR G2/S2 1B.1	Perennial rhizomatous herb. Marshes and swamps, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. In brackish or freshwater. Elevations: 0-35ft. (0-10m.) Blooms Apr-Nov.	Not Expected	Suitable wetland habitat is not present within the project area.
Limosella australis Delta mudwort	None/None G4G5/S2 2B.1	Perennial stoloniferous herb. Marshes and swamps, riparian scrub. Usually on mud banks of the Delta in marshy or scrubby riparian associations; often with Lilaeopsis masonii. Elevations: 0-10ft. (0-3m.) Blooms May-Aug.	Not Expected	Suitable wetland or riparian habitat is not present within the project area.
Lomatium repostum Napa lomatium	None/None G2G3/S2S3 1B.2	Perennial herb. Chaparral, cismontane woodland. Rocky areas in volcanic and serpentine soils with mixed chaparral and black oak woodland communities. Elevations: 295-3380ft. (90-1030m.) Blooms Mar-Jun.	Not Expected	Project site is outside the elevation range of the species. No chaparral or black oak woodland present within the project area.
Lupinus sericatus Cobb Mountain lupine	None/None G2?/S2? 1B.2	Perennial herb. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest. In stands of knobcone pine-oak woodland, on open wooded slopes in gravelly soils; sometimes on	Not Expected	Suitable woodland habitat is not present within the project area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
		serpentine. Elevations: 900-5005ft. (275-1525m.) Blooms Mar-Jun.		
Navarretia leucocephala ssp. *bakeri* Baker's navarretia	None/None G4T2/S2 1B.1	Annual herb. Cismontane woodland, lower montane coniferous forest, meadows and seeps, valley and foothill grassland, vernal pools. Vernal pools and swales; adobe or alkaline soils. Elevations: 15-5710ft. (5-1740m.) Blooms Apr-Jul.	Not Expected	Suitable woodland or vernal pool habitat is not present within the project area.
Puccinellia simplex California alkali grass	None/None G3/S2 1B.2	Annual herb. Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools. Alkaline, vernally mesic. Sinks, flats, and lake margins. Elevations: 5-3050ft. (2-930m.) Blooms Mar-May.	Not Expected	Suitable wetland habitat is not present within the project area.
Rhynchospora californica California beaked-rush	None/None G1/S1 1B.1	Perennial rhizomatous herb. Bogs and fens, lower montane coniferous forest, marshes and swamps, meadows and seeps. Freshwater seeps and open marshy areas. Elevations: 150-3315ft. (45-1010m.) Blooms May-Jul.	Not Expected	Project site is outside the elevation range of the species, suitable wetland and forest habitat is not present within the project area.
Senecio aphanactis chaparral ragwort	None/None G3/S2 2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevations: 50-2625ft. (15-800m.) Blooms Jan-Apr(May).	Not Expected	Suitable chaparral or woodland habitat is not present within the project area.
Sidalcea hickmanii ssp. *napensis* Napa checkerbloom	None/None G3T1/S1 1B.1	Perennial herb. Chaparral. Rhyolitic substrates. Elevations: 1360-2000ft. (415-610m.) Blooms Apr-Jun.	Not Expected	Project site is outside the elevation range of the species, Chaparral habitat is not present within the project area.
Spergularia macrotheca var. *longistyla* long-styled sand-spurrey	None/None G5T2/S2 1B.2	Perennial herb. Marshes and swamps, meadows and seeps. Alkaline. Elevations: 0-835ft. (0-255m.) Blooms Feb-May.	Not Expected	Suitable wetland habitat is not present within the project area.
Stuckenia filiformis ssp. *alpina* northern slender pondweed	None/None G5T5/S2S3 2B.2	Perennial rhizomatous herb (aquatic). Marshes and swamps. Shallow, clear water of lakes and drainage channels. Elevations: 985-7055ft. (300-2150m.) Blooms May-Jul.	Not Expected	Project site is outside the elevation range of the species. Suitable wetland habitat is not present within the project area.
Symphyotrichum lentum Suisun Marsh aster	None/None G2/S2 1B.2	Perennial rhizomatous herb. Marshes and swamps. Most often seen along sloughs with Phragmites, Scirpus, blackberry, Typha, etc. Elevations: 0-10ft. (0-3m.) Blooms (Apr)May-Nov.	Not Expected	Project site is outside the elevation range of the species. Suitable wetland habitat is not present within the project area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Trichostema ruygtii Napa bluecurls	None/None G1G2/S1S2 1B.2	Annual herb. Chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland, vernal pools. Often in open, sunny areas. Also has been found in vernal pools. Elevations: 100-2230ft. (30-680m.) Blooms Jun-Oct.	Low Potential	Grassland habitat is present however, the history of grazing and disturbance diminishes the likelihood of this species being present in the project area.
Trifolium amoenum two-fork clover	FE/None G1/S1 1B.1	Annual herb. Coastal bluff scrub, valley and foothill grassland. Sometimes on serpentine soil, open sunny sites, swales. Most recently cited on roadside and eroding cliff face. Elevations: 15-1360ft. (5-415m.) Blooms Apr-Jun.	Low Potential	Grassland habitat is present however, the history of grazing and disturbance diminishes the likelihood of this species being present in the project area.
Trifolium hydrophilum saline clover	None/None G2/S2 1B.2	Annual herb. Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. Elevations: 0-985ft. (0-300m.) Blooms Apr-Jun.	Low Potential	Suitable wetland and alkaline habitat is not present within the project area.
Viburnum ellipticum oval-leaved viburnum	None/None G4G5/S3? 2B.3	Perennial deciduous shrub. Chaparral, cismontane woodland, lower montane coniferous forest. Elevations: 705-4595ft. (215-1400m.) Blooms May-Jun.	Not Expected	Project site is outside the elevation range of the species. Suitable woodland habitat is not present within the project area.

Regional Vicinity refers to within a 12-quad search radius of site.

Status (Federal/State)

FE = Federal Endangered
FT = Federal Threatened
SE = State Endangered
ST = State Threatened
SCE = State Candidate Endangered

CRPR (CNPS California Rare Plant Rank)

1B = Rare, Threatened, or Endangered in California and elsewhere
2B= Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)
G2 or S2 Imperiled Globally or Subnationally (state)
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
G4/5 or S4/5 Apparently secure, common and abundant

Additional notations may be provided as follows

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
? – Inexact numeric rank

Special Status Animal Species in the Regional Vicinity of the Proposed Annexation

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Invertebrates				
Branchinecta lynchi vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not Expected	Vernal pool habitat is not present within the project area.
Desmocerus californicus dimorphus valley elderberry longhorn beetle	FT/None G3T2T3/S3	Occurs only in the Central Valley of California, in association with blue elderberry (Sambucus mexicana). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.	Not Expected	The host plant is not present within the project area.
Speyeria callippe callippe callippe silverspot butterfly	FE/None G5T1/S1	Restricted to the northern coastal scrub of the San Francisco peninsula. Hostplant is Viola pedunculata. Most adults found on E-facing slopes; males congregate on hilltops in search of females.	Not Expected	The project area is outside the known range of the species.
Syncaris pacifica California freshwater shrimp	FE/SE G2/S2	Endemic to Marin, Napa, and Sonoma counties. Found in low elevation, low gradient streams where riparian cover is moderate to heavy. Shallow pools away from main streamflow. Winter: undercut banks with exposed roots. Summer: leafy branches touching water.	Not Expected	Suitable aquatic habitat is not present within the project area.
Fish				
Acipenser medirostris pop. 1 green sturgeon - southern DPS	FT/None G3T1/S1	Spawning site fidelity. Spawns in the Sacramento, Feather and Yuba Rivers. Presence in upper Stanislaus and San Joaquin Rivers may indicate spawning. Non-spawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles. Spawning occurs primarily in cool (11-15 C) sections of mainstem rivers in deep pools (8-9 meters) with substrate containing small to medium sized sand, gravel, cobble, or boulder.	Not Expected	Suitable aquatic habitat is not present
Hypomesus transpacificus Delta smelt	FT/SE G1/S1	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait and San Pablo Bay. Seldom found at salinities > 10 ppt. Most often at salinities < 2ppt.	Not Expected	Suitable aquatic habitat is not present

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Oncorhynchus mykiss irideus pop. 8 steelhead - central California coast DPS	FT/None G5T2T3Q/S2S3	DPS includes all naturally spawned populations of steelhead (and their progeny) in streams from the Russian River to Aptos Creek, Santa Cruz County, California (inclusive). Also includes the drainages of San Francisco and San Pablo Bays. .	Not Expected	Suitable aquatic habitat is not present
Pogonichthys macrolepidotus Sacramento splittail	None/None GNR/S3 SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Delta, Suisun Bay and associated marshes. Slow moving river sections, dead end sloughs. Requires flooded vegetation for spawning and foraging for young.	Not Expected	Suitable aquatic habitat is not present
Spirinchus thaleichthys longfin smelt	FC/ST G5/S1	Euryhaline, nektonic and anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt, but can be found in completely freshwater to almost pure seawater.	Not Expected	Suitable aquatic habitat is not present
Amphibians				
Dicamptodon ensatus California giant salamander	None/None G3/S2S3 SSC	Known from wet coastal forests near streams and seeps from Mendocino County south to Monterey County, and east to Napa County. Aquatic larvae found in cold, clear streams, occasionally in lakes and ponds. Adults known from wet forests under rocks and logs near streams and lakes.	Not Expected	Suitable aquatic habitat is not present
Rana boylii foothill yellow-legged frog	None/SE G3/S3 SSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying. Needs at least 15 weeks to attain metamorphosis.	Not Expected	Suitable aquatic habitat is not present
Rana draytonii California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Not Expected	Suitable permanent aquatic habitat is not present

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Taricha rivularis red-bellied newt	None/None G2/S2 SSC	Coastal drainages from Humboldt County south to Sonoma County, inland to Lake County. Isolated population of uncertain origin in Santa Clara County. Lives in terrestrial habitats, juveniles generally underground, adults active at surface in moist environments. Will migrate over 1 km to breed, typically in streams with moderate flow and clean, rocky substrate.	Not Expected	Suitable aquatic habitat is not present
Reptiles				
Emys marmorata western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Not Expected	Suitable aquatic habitat is not present
Masticophis lateralis euryxanthus Alameda whipsnake	FT/ST G4T2/S2	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	Not Expected	Suitable chaparral habitat is not found within the project site.
Birds				
Accipiter cooperii Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Not Expected	Suitable woodland habitat is not present within the project area.
Agelaius tricolor tricolored blackbird	None/ST G1G2/S1S2 SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Not Expected	No open water habitat present within the project area.
Aquila chrysaetos golden eagle	None/None G5/S3 FP WL	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not Expected	Suitable nesting habitat is not present with in the project area. The high disturbance of the project area precludes this species from the project area

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Asio flammeus short-eared owl	None/None G5/S3 SSC	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation.	Not Expected	No swamp land habitat is present within the project area.
Athene cunicularia western burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Moderate Potential	Suitable grassland habitat is present. Ground squirrel burrows were observed within the project area.
Buteo regalis ferruginous hawk	None/None G4/S3S4 WL	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	Not Expected	Project site is outside the known nesting range of the species.
Buteo swainsoni Swainson's hawk	None/ST G5/S3	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Moderate Potential	Suitable nesting habitat is present within the project area.
Charadrius nivosus nivosus western snowy plover	FT/None G3T3/S2 SSC	Sandy beaches, salt pond levees and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	Not Expected	Suitable nesting or foraging habitat is not present within the project area.
Circus hudsonius northern harrier	None/None G5/S3 SSC	Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	Not Expected	No suitable nesting habitat is present within the project area.
Coturnicops noveboracensis yellow rail	None/None G4/S1S2 SSC	Summer resident in eastern Sierra Nevada in Mono County. Freshwater marshlands.	Not Expected	No suitable habitat is present within the project area.
Cypseloides niger black swift	None/None G4/S2 SSC	Coastal belt of Santa Cruz and Monterey counties; central and southern Sierra Nevada; San Bernardino and San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf; forages widely.	Not Expected	Suitable cliff habitat is not present within the project area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Elanus leucurus white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Moderate Potential	Suitable nesting habitat is present within the project area.
Falco peregrinus anatum American peregrine falcon	FD/SD G4T4/S3S4 FP	Near wetlands, lakes, rivers, or other water; on cliffs, banks, dunes, mounds; also, human-made structures. Nest consists of a scrape or a depression or ledge in an open site.	Not Expected	Suitable nesting habitat is not present with in the project area.
Geothlypis trichas sinuosa saltmarsh common yellowthroat	None/None G5T3/S3 SSC	Resident of the San Francisco Bay region, in fresh and salt water marshes. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	Not Expected	Suitable habitat is not present within the project area.
Laterallus jamaicensis coturniculus California black rail	None/ST G3T1/S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about 1 inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not Expected	Suitable habitat is not present within the project area.
Melospiza melodia maxillaris Suisun song sparrow	None/None G5T3/S3 SSC	Resident of brackish-water marshes surrounding Suisun Bay. Inhabits cattails, tules and other sedges, and Salicornia; also known to frequent tangles bordering sloughs.	Not Expected	Suitable habitat is not present within the project area.
Melospiza melodia samuelis San Pablo song sparrow	None/None G5T2/S2 SSC	Resident of salt marshes along the north side of San Francisco and San Pablo bays. Inhabits tidal sloughs in the Salicornia marshes; nests in Grindelia bordering slough channels.	Not Expected	Suitable habitat is not present within the project area.
Pandion haliaetus osprey	None/None G5/S4 WL	Ocean shore, bays, freshwater lakes, and larger streams. Large nests built in tree-tops within 15 miles of a good fish-producing body of water.	Not Expected	Suitable habitat is not present within the project area.
Rallus obsoletus obsoletus California Ridgway's rail	FE/SE G3T1/S1 FP	Salt water and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed, but feeds away from cover on invertebrates from mud-bottomed sloughs.	Not Expected	Suitable habitat is not present within the project area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Riparia riparia bank swallow	None/ST G5/S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not Expected	Suitable habitat is not present within the project area.
Xanthocephalus xanthocephalus yellow-headed blackbird	None/None G5/S3 SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as Odonata are abundant, nesting timed with maximum emergence of aquatic insects.	Not Expected	Suitable habitat is not present within the project area.
Mammals				
Antrozous pallidus pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Not Expected	Suitable foraging habitat is present however, no roosting habitat is present within the project area.
Corynorhinus townsendii Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	Not Expected	Suitable roosting habitat is not present within the project area.
Nyctinomops macrotis big free-tailed bat	None/None G5/S3 SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	Not Expected	Suitable roosting habitat is not present within the project area.
Reithrodontomys raviventris salt-marsh harvest mouse	FE/SE G1G2/S1S2 FP	Only in the saline emergent wetlands of San Francisco Bay and its tributaries. Pickleweed is primary habitat, but may occur in other marsh vegetation types and in adjacent upland areas. Does not burrow; builds loosely organized nests. Requires higher areas for flood escape.	Not Expected	Suitable habitat is not present within the project area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Sorex ornatus sinuosus Suisun shrew	None/None G5T1T2Q/S1S2 SSC	Tidal marshes of the northern shores of San Pablo and Suisun bays. Require dense low-lying cover and driftweed and other litter above the mean hightide line for nesting and foraging.	Not Expected	Suitable habitat is not present within the project area.
Taxidea taxus American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low Potential	Suitable habitat is present within the project area however, there are no recent records within the search perimiter.

Regional Vicinity refers to within a 12-quad search radius of site.

Status (Federal/State)

FE = Federal Endangered

FT = Federal Threatened

SE = State Endangered

ST = State Threatened

SCE = State Candidate Endangered

Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)

G2 or S2 Imperiled Globally or Subnationally (state)

G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)

G4/5 or S4/5 Apparently secure, common and abundant

Additional notations may be provided as follows

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)

Appendix C

Supporting Noise Information

Existing and Forecast Volumes For Watson Lane EIR Scenarios (Updated January 2023)

		Existing Network					Build-Out Network				
Roadway	Location	Facility Type	Number of Lanes	Speed Limit	Existing 2022 Count	E+P Adjusted Forecast	Facility Type	Number of Lanes	Speed Limit	Cumulative Adjusted Forecast	C+P Adjusted Forecast
Interstate 80	s/o SR 37	Nine-Lane Freeway	9	65	110,006	109,836	Nine-Lane Freeway	9	65	117,524	117,514
	s/o American Canyon Road	Nine-Lane Freeway	9	65	109,042	107,096	Nine-Lane Freeway	9	65	123,066	121,991
	s/o Red Top Road	Eight-Lane Freeway	8	65	112,650	109,791	Nine-Lane Freeway	8	65	130,058	128,806
	s/o SR 12	Eight-Lane Freeway	8	65	97,782	95,830	Eight-Lane Freeway	8	65	114,818	113,977
	n/o SR 12	Eight-Lane Freeway	8	65	136,706	136,566	Eight-Lane Freeway	8	65	155,782	155,682
State Route 29	s/o SR 37	Four-Lane Arterial	4	50 to 55	24,051	23,903	Four-Lane Arterial	4	50 to 55	26,193	26,059
	n/o SR 37	Four-Lane Arterial	4	50 to 55	43,483	43,492	Six-Lane Arterial	4	50 to 55	40,578	40,444
	s/o Mini Drive	Four-Lane Arterial	4	50 to 55	37,492	37,915	Six-Lane Arterial	4	50 to 55	37,689	37,666
	n/o Mini Drive	Four-Lane Arterial	4	50 to 55	43,469	44,009	Six-Lane Arterial	4	50 to 55	43,570	43,575
	n/o American Canyon Road	Four-Lane Arterial	4	50 to 55	49,579	49,523	Six-Lane Arterial	4	50 to 55	50,923	51,132
	s/o Napa Junction Road	Six-Lane Arterial	6	50 to 55	40,762	42,107	Six-Lane Arterial	6	50 to 55	35,274	36,053
	n/o Napa Junction Road	Four-Lane Highway	4	50 to 55	59,044	62,507	Six-Lane Highway	4	50 to 55	59,796	60,310
	n/o Green Island Road	Four-Lane Highway	4	50 to 55	60,263	59,161	Four-Lane Highway	4	50 to 55	62,745	62,189
	s/o SR 12	Six-Lane Highway	6	50 to 55	*59,200*	58,100	Six-Lane Highway	6	50 to 55	63,160	62,560
	n/o SR 12	Six-Lane Highway	6	50 to 55	*88,600*	87,000	Six-Lane Highway	6	50 to 55	107,200	106,300
Airport Blvd.	w/o SR 29	Four-Lane Collector	4	45	10,500	10,298	Four-Lane Collector	4	45	10,551	10,341
State Route 12	e/o N. Kelly Road	Four-Lane Highway	3	55	35,033	35,922	Four-Lane Highway	3	55	35,717	36,038
	w/o Red Top Road	Two-Lane Highway	2	55	37,179	38,075	Four-Lane Highway	2	55	37,776	38,106
State Route 37	w/o SR 29	Four-Lane Freeway	4	50 to 55	39,980	39,788	Four-Lane Freeway	4	50 to 55	39,156	39,074
	e/o SR 29	Four-Lane Freeway	4	50 to 55	62,495	62,352	Four-Lane Freeway	4	50 to 55	63,634	63,592
	e/o Fairgrounds Road	Four-Lane Freeway	4	50 to 55	*69,800*	69,800	Four-Lane Freeway	0	50 to 55	69,800	69,800
	e/o I-80	Six-Lane Freeway	6	50 to 55	42,000	41,948	Six-Lane Freeway	6	50 to 55	47,826	47,776
American Cyn Rd.	w/o SR 29	Four-Lane Arterial	4	45	15,330	14,396	Four-Lane Arterial	4	45	10,744	10,935
	e/o Flosden Road	Two-Lane Arterial	2	45	10,771	9,857	Two-Lane Arterial	2	45	14,419	14,194
	w/o I-80	Two-Lane Arterial	2	45	4,076	3,151	Two-Lane Arterial	2	45	7,774	7,610
Hiddenbrook Pkwy	e/o I-80	Two-Lane Collector	2	40	6,023	6,019	Two-Lane Collector	2	40	6,945	6,943
Flosden Road	s/o American Canyon Road	Four-Lane Arterial	4	45	21,510	21,450	Four-Lane Arterial	4	45	29,534	29,362
Newell Drive	n/o American Canyon Road	Four-Lane Arterial	4	35	9,685	9,129	Four-Lane Arterial	4	35	28,695	28,072
	s/o Napa Junction Road	-	-	-	-	-	Four-Lane Arterial	4	*35*	19,537	21,790
South Kelly Road	s/o SR 12	Two-Lane Collector	2	50	1,602	2,570	Two-Lane Collector	2	50	11,310	11,310
Devlin Road	n/o Green Island Road	Two-Lane Collector	-	-	-	0	Two-Lane Collector	2	40	5,318	5,224

Scenario Abbreviations: E+P is Existing Plus Project, C+P is Cumulative Plus Project

Notes:

1. Numbers shown in italic font are estimates
2. Neither Newell Dr. south of Napa Junction Rd. nor Devlin Rd. north of Green Island Rd. exist in 2022.

Vehicle Mix: Existing and Forecast Volumes For Watson Lane EIR Scenarios (Updated January 2023)

		Existing 2022				Existing + Project 2022				Cumulative				Cumulative Plus Project			
Roadway	Location	Auto	Medium Duty	Heavy Duty	Existing 2022 Count	Auto	Medium Duty	Heavy Duty	E+P Adjusted Forecast	Auto	Medium Duty	Heavy Duty	Cumulat Adjusted Forecast	Auto	Medium Duty	Heavy Duty	C+P Adjusted Forecast
Interstate 80	s/o SR 37	103,087	3,460	3,460	110,006	102,927	3,454	3,454	109,836	110,132	3,696	3,696	117,524	110,122	3,696	3,696	117,514
	s/o American Canyon Road	102,881	3,080	3,080	109,042	101,045	3,025	3,025	107,096	116,113	3,477	3,477	123,066	115,099	3,446	3,446	121,991
	s/o Red Top Road	106,037	3,306	3,306	112,650	103,346	3,222	3,222	109,791	122,424	3,817	3,817	130,058	121,245	3,780	3,780	128,806
	s/o SR 12	92,042	2,870	2,870	97,782	90,205	2,813	2,813	95,830	108,078	3,370	3,370	114,818	107,287	3,345	3,345	113,977
	n/o SR 12	125,441	5,632	5,632	136,706	125,313	5,627	5,627	136,566	142,946	6,418	6,418	155,782	142,854	6,414	6,414	155,682
State Route 29	s/o SR 37	23,544	254	254	24,051	23,399	252	252	23,903	25,640	276	276	26,193	25,509	275	275	26,059
	n/o SR 37	41,357	1,063	1,063	43,483	41,365	1,063	1,063	43,492	38,594	992	992	40,578	38,466	989	989	40,444
	s/o Mini Drive	35,689	902	902	37,492	36,091	912	912	37,915	35,876	906	906	37,689	35,854	906	906	37,666
	n/o Mini Drive	41,448	1,011	1,011	43,469	41,963	1,023	1,023	44,009	41,544	1,013	1,013	43,570	41,549	1,013	1,013	43,575
	n/o American Canyon Road	47,402	1,088	1,088	49,579	47,349	1,087	1,087	49,523	48,687	1,118	1,118	50,923	48,887	1,122	1,122	51,132
	s/o Napa Junction Road	37,966	1,398	1,398	40,762	39,218	1,444	1,444	42,107	32,854	1,210	1,210	35,274	33,580	1,237	1,237	36,053
	n/o Napa Junction Road	54,415	2,315	2,315	59,044	57,606	2,450	2,450	62,507	55,108	2,344	2,344	59,796	55,582	2,364	2,364	60,310
	n/o Green Island Road	54,176	3,043	3,043	60,263	53,186	2,988	2,988	59,161	56,408	3,169	3,169	62,745	55,908	3,141	3,141	62,189
	s/o SR 12	54,553	2,324	2,324	*59,200*	53,539	2,280	2,280	58,100	58,202	2,479	2,479	63,160	57,649	2,455	2,455	62,560
	n/o SR 12	82,761	2,919	2,919	*88,600*	81,267	2,867	2,867	87,000	100,136	3,532	3,532	107,200	99,295	3,503	3,503	106,300
Airport Blvd.	w/o SR 29	9,899	300	300	10,500	9,709	295	295	10,298	9,947	302	302	10,551	9,749	296	296	10,341
State Route 12	e/o N. Kelly Road	31,284	1,874	1,874	35,033	32,078	1,922	1,922	35,922	31,895	1,911	1,911	35,717	32,182	1,928	1,928	36,038
	w/o Red Top Road	33,312	1,933	1,933	37,179	34,115	1,980	1,980	38,075	33,847	1,964	1,964	37,776	34,143	1,982	1,982	38,106
State Route 37	w/o SR 29	37,861	1,059	1,059	39,980	37,679	1,054	1,054	39,788	37,081	1,038	1,038	39,156	37,003	1,035	1,035	39,074
	e/o SR 29	59,370	1,562	1,562	62,495	59,234	1,559	1,559	62,352	60,452	1,591	1,591	63,634	60,412	1,590	1,590	63,592
	e/o Fairgrounds Road	66,108	1,846	1,846	*69,800*	66,108	1,846	1,846	69,800	66,108	1,846	1,846	69,800	66,108	1,846	1,846	69,800
	e/o I-80	41,013	494	494	42,000	40,962	493	493	41,948	46,702	562	562	47,826	46,653	561	561	47,776
American Cyn Rd.	w/o SR 29	14,930	200	200	15,330	14,020	188	188	14,396	10,464	140	140	10,744	10,650	143	143	10,935
	e/o Flosden Road	10,684	44	44	10,771	9,777	40	40	9,857	14,302	58	58	14,419	14,079	57	57	14,194
	w/o I-80	3,648	214	214	4,076	2,820	165	165	3,151	6,958	408	408	7,774	6,811	400	400	7,610
Hiddenbrook Pkwy	e/o I-80	5,858	83	83	6,023	5,854	82	82	6,019	6,755	95	95	6,945	6,753	95	95	6,943
Flosden Road	s/o American Canyon Road	20,884	313	313	21,510	20,826	312	312	21,450	28,675	430	430	29,534	28,508	427	427	29,362
Newell Drive	n/o American Canyon Road	9,485	100	100	9,685	8,940	94	94	9,129	28,101	297	297	28,695	27,491	291	291	28,072
	s/o Napa Junction Road	-	-	-	-	-	-	-	-	*19,133*	*202*	*202*	19,537	*21,339*	*226*	*226*	21,790
South Kelly Road	s/o SR 12	1,586	8	8	1,602	2,544	13	13	2,570	11,197	57	57	11,310	11,197	57	57	11,310
Devlin Road	n/o Green Island Road	-	-	-	-	-	-	-	0	*266*	*2,526*	*2,526*	5,318	*261*	*2,481*	*2,481*	5,224

Scenario Abbreviations: E+P is Existing Plus Project, C+P is Cumulative Plus Project

Notes:

1. Numbers shown in italic font are estimates
2. Neither Newell Dr. south of Napa Junction Rd. nor Devlin Rd. north of Green Island Rd. exist in 2022.

Time of Day Distribution: Existing and Forecast Volumes For Watson Lane EIR Scenarios (Updated January 2023)

		Existing 2022				Existing + Project 2022				Cumulative				Cumulative Plus Project			
Roadway	Location	7 a.m.-7 p.m.	7 p.m. - 10 p.m.	10p - 7a	Existing 2022 Count	7 a.m.-7 p.m.	7 p.m. - 10 p.m.	10p - 7a	E+P Adjusted Forecast	7 a.m.-7 p.m.	7 p.m. - 10 p.m.	10p - 7a	Cumulat Adjusted Forecast	7 a.m.-7 p.m.	7 p.m. - 10 p.m.	10p - 7a	C+P Adjusted Forecast
Interstate 80	s/o SR 37	85,166	14,686	10,154	110,006	85,034	14,663	10,139	109,836	90,986	15,689	10,848	117,524	90,979	15,688	10,847	117,514
	s/o American Canyon Road	84,420	14,557	10,065	109,042	82,913	14,297	9,886	107,096	95,277	16,429	11,360	123,066	94,445	16,286	11,261	121,991
	s/o Red Top Road	87,213	15,039	10,398	112,650	84,999	14,657	10,134	109,791	100,690	17,363	12,005	130,058	99,721	17,196	11,890	128,806
	s/o SR 12	75,702	13,054	9,026	97,782	74,191	12,793	8,846	95,830	88,891	15,328	10,599	114,818	88,240	15,216	10,521	113,977
	n/o SR 12	105,837	18,250	12,619	136,706	105,728	18,232	12,606	136,566	120,605	20,797	14,380	155,782	120,528	20,784	14,371	155,682
State Route 29	s/o SR 37	19,692	3,110	1,249	24,051	19,571	3,091	1,241	23,903	21,446	3,387	1,360	26,193	21,336	3,369	1,353	26,059
	n/o SR 37	34,302	5,783	3,398	43,483	34,309	5,784	3,399	43,492	32,010	5,397	3,171	40,578	31,904	5,379	3,161	40,444
	s/o Mini Drive	29,794	4,881	2,816	37,492	30,130	4,937	2,848	37,915	29,951	4,907	2,831	37,689	29,932	4,904	2,829	37,666
	n/o Mini Drive	35,449	5,512	2,508	43,469	35,889	5,580	2,539	44,009	35,531	5,525	2,514	43,570	35,535	5,525	2,514	43,575
	n/o American Canyon Road	40,432	6,287	2,861	49,579	40,386	6,280	2,857	49,523	41,528	6,457	2,938	50,923	41,698	6,484	2,950	51,132
	s/o Napa Junction Road	33,241	5,169	2,352	40,762	34,338	5,339	2,430	42,107	28,766	4,473	2,035	35,274	29,401	4,572	2,080	36,053
	n/o Napa Junction Road	48,150	7,487	3,407	59,044	50,974	7,926	3,607	62,507	48,764	7,582	3,450	59,796	49,183	7,647	3,480	60,310
	n/o Green Island Road	49,144	7,641	3,477	60,263	48,246	7,502	3,414	59,161	51,169	7,956	3,620	62,745	50,715	7,886	3,588	62,189
	s/o SR 12	48,278	7,507	3,416	*59,200*	47,381	7,367	3,352	58,100	51,507	8,009	3,644	63,160	51,018	7,933	3,610	62,560
	n/o SR 12	72,253	11,234	5,112	*88,600*	70,949	11,032	5,020	87,000	87,422	13,593	6,185	107,200	86,688	13,479	6,134	106,300
Airport Blvd.	w/o SR 29	8,831	462	1,207	10,500	8,661	453	1,184	10,298	8,874	464	1,213	10,551	8,697	455	1,189	10,341
State Route 12	e/o N. Kelly Road	25,912	2,831	6,291	35,033	26,569	2,902	6,450	35,922	26,418	2,886	6,413	35,717	26,655	2,912	6,471	36,038
	w/o Red Top Road	27,499	3,004	6,676	37,179	28,162	3,076	6,837	38,075	27,941	3,052	6,783	37,776	28,185	3,079	6,842	38,106
State Route 37	w/o SR 29	31,180	5,397	3,402	39,980	31,031	5,371	3,386	39,788	30,538	5,286	3,332	39,156	30,474	5,275	3,325	39,074
	e/o SR 29	48,740	8,437	5,318	62,495	48,628	8,418	5,306	62,352	49,628	8,591	5,415	63,634	49,595	8,585	5,412	63,592
	e/o Fairgrounds Road	54,437	9,423	5,940	*69,800*	54,437	9,423	5,940	69,800	54,437	9,423	5,940	69,800	54,437	9,423	5,940	69,800
	e/o I-80	32,756	5,670	3,574	42,000	32,715	5,663	3,570	41,948	37,299	6,457	4,070	47,826	37,261	6,450	4,066	47,776
American Cyn Rd.	w/o SR 29	12,528	1,722	1,080	15,330	11,765	1,617	1,014	14,396	8,781	1,207	757	10,744	8,937	1,228	770	10,935
	e/o Flosden Road	8,803	1,210	759	10,771	8,056	1,107	694	9,857	11,784	1,619	1,016	14,419	11,600	1,594	1,000	14,194
	w/o I-80	3,331	458	287	4,076	2,575	354	222	3,151	6,353	873	548	7,774	6,219	855	536	7,610
Hiddenbrook Pkwy	e/o I-80	4,757	771	495	6,023	4,754	770	495	6,019	5,486	889	571	6,945	5,484	888	571	6,943
Flosden Road	s/o American Canyon Road	17,605	2,381	1,524	21,510	17,556	2,375	1,519	21,450	24,173	3,269	2,092	29,534	24,032	3,250	2,080	29,362
Newell Drive	n/o American Canyon Road	8,220	1,045	420	9,685	7,748	985	396	9,129	24,354	3,096	1,245	28,695	23,825	3,029	1,218	28,072
	s/o Napa Junction Road	-	-	-	-	-	-	-	-	16,581	2,108	848	19,537	18,494	2,351	945	21,790
South Kelly Road	s/o SR 12	1,417	123	62	1,602	2,273	198	99	2,570	10,004	871	435	11,310	10,004	871	435	11,310
Devlin Road	n/o Green Island Road	-	-	-	-	-	-	-	0	5,225	0	93	5,318	5,133	0	91	5,224

Scenario Abbreviations: E+P is Existing Plus Project, C+P is Cumulative Plus Project

Notes:

1. Numbers shown in italic font are estimates
2. Neither Newell Dr. south of Napa Junction Rd. nor Devlin Rd. north of Green Island Rd. exist in 2022.

Traffic Noise Calculator: FHWA 77-108 **Project Title: 19-08743 Watson Lane Annexation - Existing 2022**

	Output						Inputs												Auto Inputs	
	dBA at 50 feet			Distance to CNEL Contour																
ID	$L_{eq\text{-}24hr}$	L_{dn}	CNEL	70 dBA	65 dBA	60 dBA	Roadway	Segment	ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Reciever	Ground Absorption	Lane Distance
6	70.8	72.4	73.2	82	176	378	State Route 29	s/o SR 37	24,051	55	0.0%	97.9%	1.1%	1.1%	81.9%	12.9%	5.2%	4	Soft	50	0.5	44
7	74.1	76.4	77.1	148	319	688	State Route 29	n/o SR 37	43,483	55	0.0%	95.1%	2.4%	2.4%	78.9%	13.3%	7.8%	4	Soft	50	0.5	44
8	73.4	75.7	76.3	132	285	614	State Route 29	s/o Mini Drive	37,492	55	0.0%	95.2%	2.4%	2.4%	79.5%	13.0%	7.5%	4	Soft	50	0.5	44
9	74.0	75.8	76.6	137	295	636	State Route 29	n/o Mini Drive	43,469	55	0.0%	95.4%	2.3%	2.3%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
10	74.5	76.3	77.1	148	319	687	State Route 29	n/o American Canyon Road	49,579	55	0.0%	95.6%	2.2%	2.2%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
11	74.5	76.3	77.1	148	318	685	State Route 29	s/o Napa Junction Road	40,762	55	0.0%	93.1%	3.4%	3.4%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
12	76.1	77.9	78.6	188	405	874	State Route 29	n/o Napa Junction Road	59,044	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
13	76.6	78.5	79.2	205	441	950	State Route 29	n/o Green Island Road	60,263	55	0.0%	89.9%	5.1%	5.1%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
14	76.4	78.2	78.9	196	421	908	State Route 29	s/o SR 12	59,200	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
15	77.8	79.6	80.4	245	528	1139	State Route 29	n/o SR 12	88,600	55	0.0%	93.4%	3.3%	3.3%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
16	66.2	69.3	69.5	46	100	215	Airport Blvd	w/o SR 29	10,500	45	0.0%	94.3%	2.9%	2.9%	84.1%	4.4%	11.5%	4	Soft	50	0.5	44
17	74.3	78.5	78.8	193	415	894	State Route 12	e/o N. Kelly Road	35,033	55	0.0%	89.3%	5.4%	5.4%	74.0%	8.1%	18.0%	3	Soft	50	0.5	32
19	73.8	76.3	77.0	146	314	675	State Route 37	w/o SR 29	39,980	55	0.0%	94.7%	2.7%	2.7%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44
20	75.7	78.2	78.8	194	418	900	State Route 37	e/o SR 29	62,495	55	0.0%	95.0%	2.5%	2.5%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44
23	66.8	68.9	69.5	46	100	216	American Canyon Rd	w/o SR 29	15,330	45	0.0%	97.4%	1.3%	1.3%	81.7%	11.2%	7.0%	4	Soft	50	0.5	44
24	64.4	66.5	67.1	32	69	148	American Canyon Rd	e/o Flosden Road	10,771	45	0.0%	99.2%	0.4%	0.4%	81.7%	11.2%	7.0%	2	Soft	50	0.5	20
27	68.4	70.5	71.1	59	128	275	Flosden Road	s/o American Canyon Road	21,510	45	0.0%	97.1%	1.5%	1.5%	81.8%	11.1%	7.1%	4	Soft	50	0.5	44
28	61.9	63.4	64.0	20	43	93	Newell Drive	n/o American Canyon Road	9,685	35	0.0%	97.9%	1.0%	1.0%	84.9%	10.8%	4.3%	4	Soft	50	0.5	44
30	57.4	58.7	59.2	10	21	44	South Kelly Road	s/o SR 12	1,602	50	0.0%	99.0%	0.5%	0.5%	88.5%	7.7%	3.9%	2	Soft	50	0.5	20

Traffic Noise Calculator: FHWA 77-108 **Project Title: 19-08743 Watson Lane Annexation - Existing + Project**

	Output						Inputs												Auto Inputs	
	dBA at 50 feet			Distance to CNEL Contour																
ID	$L_{eq\text{-}24hr}$	L_{dn}	CNEL	70 dBA	65 dBA	60 dBA	Roadway	Segment	ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Reciever	Ground Absorption	Lane Distance
6	70.7	72.4	73.2	81	175	377	State Route 29	s/o SR 37	23,903	55	0.0%	97.9%	1.1%	1.1%	81.9%	12.9%	5.2%	4	Soft	50	0.5	44
7	74.1	76.4	77.1	148	319	688	State Route 29	n/o SR 37	43,492	55	0.0%	95.1%	2.4%	2.4%	78.9%	13.3%	7.8%	4	Soft	50	0.5	44
8	73.5	75.7	76.4	133	287	619	State Route 29	s/o Mini Drive	37,915	55	0.0%	95.2%	2.4%	2.4%	79.5%	13.0%	7.5%	4	Soft	50	0.5	44
9	74.1	75.9	76.6	138	297	641	State Route 29	n/o Mini Drive	44,009	55	0.0%	95.4%	2.3%	2.3%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
10	74.5	76.3	77.1	148	319	686	State Route 29	n/o American Canyon Road	49,523	55	0.0%	95.6%	2.2%	2.2%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
11	74.7	76.5	77.2	151	325	700	State Route 29	s/o Napa Junction Road	42,107	55	0.0%	93.1%	3.4%	3.4%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
12	76.3	78.2	78.9	196	421	907	State Route 29	n/o Napa Junction Road	62,507	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
13	76.6	78.4	79.1	202	436	938	State Route 29	n/o Green Island Road	59,161	55	0.0%	89.9%	5.1%	5.1%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
14	76.3	78.1	78.8	193	416	897	State Route 29	s/o SR 12	58,100	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
15	77.7	79.6	80.3	242	522	1125	State Route 29	n/o SR 12	87,000	55	0.0%	93.4%	3.3%	3.3%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
16	66.1	69.2	69.4	46	99	212	Airport Blvd	w/o SR 29	10,298	45	0.0%	94.3%	2.9%	2.9%	84.1%	4.4%	11.5%	4	Soft	50	0.5	44
17	74.4	78.6	78.9	196	422	909	State Route 12	e/o N. Kelly Road	35,922	55	0.0%	89.3%	5.4%	5.4%	74.0%	8.1%	18.0%	3	Soft	50	0.5	32
19	73.8	76.3	76.9	145	313	673	State Route 37	w/o SR 29	39,788	55	0.0%	94.7%	2.7%	2.7%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44
20	75.7	78.2	78.8	193	417	898	State Route 37	e/o SR 29	62,352	55	0.0%	95.0%	2.5%	2.5%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44
23	66.5	68.6	69.3	45	96	207	American Canyon Rd	w/o SR 29	14,396	45	0.0%	97.4%	1.3%	1.3%	81.7%	11.2%	7.0%	4	Soft	50	0.5	44
24	64.0	66.1	66.7	30	65	140	American Canyon Rd	e/o Flosden Road	9,857	45	0.0%	99.2%	0.4%	0.4%	81.7%	11.2%	7.0%	2	Soft	50	0.5	20
27	68.4	70.5	71.1	59	128	275	Flosden Road	s/o American Canyon Road	21,450	45	0.0%	97.1%	1.5%	1.5%	81.8%	11.1%	7.1%	4	Soft	50	0.5	44
28	61.7	63.1	63.8	19	41	89	Newell Drive	n/o American Canyon Road	9,129	35	0.0%	97.9%	1.0%	1.0%	84.9%	10.8%	4.3%	4	Soft	50	0.5	44
30	59.5	60.7	61.2	13	28	61	South Kelly Road	s/o SR 12	2,570	50	0.0%	99.0%	0.5%	0.5%	88.5%	7.7%	3.9%	2	Soft	50	0.5	20

Traffic Noise Calculator: FHWA 77-108 **Project Title: 19-08743 Watson Lane Annexation - Cumulative**

	Output						Inputs												Auto Inputs	
	dBA at 50 feet			Distance to CNEL Contour																
ID	$L_{eq\text{-}24hr}$	L_{dn}	CNEL	70 dBA	65 dBA	60 dBA	Roadway	Segment	ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Reciever	Ground Absorption	Lane Distance
6	71.1	72.8	73.6	86	186	400	State Route 29	s/o SR 37	26,193	55	0.0%	97.9%	1.1%	1.1%	81.9%	12.9%	5.2%	4	Soft	50	0.5	44
7	73.8	76.1	76.8	142	305	657	State Route 29	n/o SR 37	40,578	55	0.0%	95.1%	2.4%	2.4%	78.9%	13.3%	7.8%	4	Soft	50	0.5	44
8	73.4	75.7	76.4	133	286	617	State Route 29	s/o Mini Drive	37,689	55	0.0%	95.2%	2.4%	2.4%	79.5%	13.0%	7.5%	4	Soft	50	0.5	44
9	74.0	75.9	76.6	137	296	637	State Route 29	n/o Mini Drive	43,570	55	0.0%	95.4%	2.3%	2.3%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
10	74.6	76.5	77.2	151	325	699	State Route 29	n/o American Canyon Road	50,923	55	0.0%	95.6%	2.2%	2.2%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
11	73.9	75.7	76.4	134	289	622	State Route 29	s/o Napa Junction Road	35,274	55	0.0%	93.1%	3.4%	3.4%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
12	76.2	78.0	78.7	190	409	881	State Route 29	n/o Napa Junction Road	59,796	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
13	77.5	79.3	80.0	232	501	1078	State Route 29	n/o Green Island Road	62,745	55	0.0%	89.9%	5.1%	5.1%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
14	77.2	79.0	79.7	222	478	1031	State Route 29	s/o SR 12	63,160	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
15	78.7	80.5	81.2	279	600	1293	State Route 29	n/o SR 12	107,200	55	0.0%	93.4%	3.3%	3.3%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
16	66.2	69.3	69.5	47	100	216	Airport Blvd	w/o SR 29	10,551	45	0.0%	94.3%	2.9%	2.9%	84.1%	4.4%	11.5%	4	Soft	50	0.5	44
17	74.4	78.6	78.9	195	420	905	State Route 12	e/o N. Kelly Road	35,717	55	0.0%	89.3%	5.4%	5.4%	74.0%	8.1%	18.0%	3	Soft	50	0.5	32
19	73.7	76.2	76.9	144	309	666	State Route 37	w/o SR 29	39,156	55	0.0%	94.7%	2.7%	2.7%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44
20	75.8	78.2	78.9	196	423	910	State Route 37	e/o SR 29	63,634	55	0.0%	95.0%	2.5%	2.5%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44
23	65.2	67.4	68.0	37	79	170	American Canyon Rd	w/o SR 29	10,744	45	0.0%	97.4%	1.3%	1.3%	81.7%	11.2%	7.0%	4	Soft	50	0.5	44
24	65.6	67.8	68.4	39	84	180	American Canyon Rd	e/o Flosden Road	14,419	45	0.0%	99.2%	0.4%	0.4%	81.7%	11.2%	7.0%	2	Soft	50	0.5	20
27	69.8	71.9	72.5	73	158	340	Flosden Road	s/o American Canyon Road	29,534	45	0.0%	97.1%	1.5%	1.5%	81.8%	11.1%	7.1%	4	Soft	50	0.5	44
28	66.7	68.1	68.8	41	89	192	Newell Drive	n/o American Canyon Road	28,695	35	0.0%	97.9%	1.0%	1.0%	84.9%	10.8%	4.3%	4	Soft	50	0.5	44
29	65.0	66.4	67.1	32	69	148	Newell Drive	s/o Napa Junction Road	19,537	35	0.0%	97.9%	1.0%	1.0%	84.9%	10.8%	4.3%	4	Soft	50	0.5	44
30	59.9	61.2	61.7	14	30	65	South Kelly Road	s/o SR 12	11,310	50	0.0%	99.0%	0.5%	0.5%	88.5%	7.7%	3.9%	2	Soft	50	0.5	20

Traffic Noise Calculator: FHWA 77-108 **Project Title: 19-08743 Watson Lane Annexation - Cumulative + Project**

	Output						Inputs												Auto Inputs	
	dBA at 50 feet			Distance to CNEL Contour																
ID	$L_{eq\text{-}24hr}$	L_{dn}	CNEL	70 dBA	65 dBA	60 dBA	Roadway	Segment	ADT	Posted Speed Limit	Grade	% Autos	% Med Trucks	% Heavy Trucks	% Daytime	% Evening	% Night	Number of Lanes	Site Condition	Distance to Reciever	Ground Absorption	Lane Distance
6	71.1	72.8	73.5	86	185	399	State Route 29	s/o SR 37	26,059	55	0.0%	97.9%	1.1%	1.1%	81.9%	12.9%	5.2%	4	Soft	50	0.5	44
7	73.8	76.1	76.8	141	304	656	State Route 29	n/o SR 37	40,444	55	0.0%	95.1%	2.4%	2.4%	78.9%	13.3%	7.8%	4	Soft	50	0.5	44
8	73.4	75.7	76.4	133	286	616	State Route 29	s/o Mini Drive	37,666	55	0.0%	95.2%	2.4%	2.4%	79.5%	13.0%	7.5%	4	Soft	50	0.5	44
9	74.0	75.9	76.6	137	296	637	State Route 29	n/o Mini Drive	43,575	55	0.0%	95.4%	2.3%	2.3%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
10	74.7	76.5	77.2	151	325	701	State Route 29	n/o American Canyon Road	51,132	55	0.0%	95.6%	2.2%	2.2%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
11	74.0	75.8	76.5	136	293	631	State Route 29	s/o Napa Junction Road	36,053	55	0.0%	93.1%	3.4%	3.4%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
12	76.2	78.0	78.7	191	411	886	State Route 29	n/o Napa Junction Road	60,310	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
13	77.4	79.3	80.0	231	498	1073	State Route 29	n/o Green Island Road	62,189	55	0.0%	89.9%	5.1%	5.1%	81.6%	12.7%	5.8%	4	Soft	50	0.5	44
14	77.1	79.0	79.7	221	476	1025	State Route 29	s/o SR 12	62,560	55	0.0%	92.2%	3.9%	3.9%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
15	78.6	80.4	81.2	277	597	1286	State Route 29	n/o SR 12	106,300	55	0.0%	93.4%	3.3%	3.3%	81.6%	12.7%	5.8%	6	Soft	50	0.5	68
16	66.2	69.2	69.4	46	99	213	Airport Blvd	w/o SR 29	10,341	45	0.0%	94.3%	2.9%	2.9%	84.1%	4.4%	11.5%	4	Soft	50	0.5	44
17	74.4	78.6	78.9	196	423	911	State Route 12	e/o N. Kelly Road	36,038	55	0.0%	89.3%	5.4%	5.4%	74.0%	8.1%	18.0%	3	Soft	50	0.5	32
19	73.7	76.2	76.9	143	309	665	State Route 37	w/o SR 29	39,074	55	0.0%	94.7%	2.7%	2.7%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44
20	75.8	78.2	78.9	196	422	910	State Route 37	e/o SR 29	63,592	55	0.0%	95.0%	2.5%	2.5%	78.0%	13.5%	8.5%	4	Soft	50	0.5	44
23	65.3	67.5	68.1	37	80	172	American Canyon Rd	w/o SR 29	10,935	45	0.0%	97.4%	1.3%	1.3%	81.7%	11.2%	7.0%	4	Soft	50	0.5	44
24	65.6	67.7	68.3	38	83	178	American Canyon Rd	e/o Flosden Road	14,194	45	0.0%	99.2%	0.4%	0.4%	81.7%	11.2%	7.0%	2	Soft	50	0.5	20
27	69.7	71.9	72.5	73	157	339	Flosden Road	s/o American Canyon Road	29,362	45	0.0%	97.1%	1.5%	1.5%	81.8%	11.1%	7.1%	4	Soft	50	0.5	44
28	66.6	68.0	68.7	41	88	189	Newell Drive	n/o American Canyon Road	28,072	35	0.0%	97.9%	1.0%	1.0%	84.9%	10.8%	4.3%	4	Soft	50	0.5	44
29	65.5	66.9	67.6	34	74	160	Newell Drive	s/o Napa Junction Road	21,790	35	0.0%	97.9%	1.0%	1.0%	84.9%	10.8%	4.3%	4	Soft	50	0.5	44
30	59.9	61.2	61.7	14	30	65	South Kelly Road	s/o SR 12	11,310	50	0.0%	99.0%	0.5%	0.5%	88.5%	7.7%	3.9%	2	Soft	50	0.5	20

Traffic Noise Increase Summary

Roadway Segment	Existing ADT	Existing + Project ADT	Cumulative ADT	Cumulative + Project ADT	Project Noise Increase ($dBA L_{dn}$)	Cumulative Increase ($dBA L_{dn}$)	Project Cumulative Contribution ($dBA L_{dn}$)
State Route 29 - South of State Route 37	24,051	23,903	26,193	26,059	0.0	0.3	0.0
State Route 29- North of State Route 37	43,483	43,492	40,578	40,444	0.0	-0.3	0.0
State Route 29 - South of Mini Drive	37,492	37,915	37,689	37,666	0.0	0.0	0.0
State Route 29 - North of Mini Drive	43,469	44,009	43,570	43,575	0.1	0.0	0.0
State Route 29 - North of American Canyon Road	49,579	49,523	50,923	51,132	0.0	0.1	0.0
State Route 29 - South of Napa Junction Road	40,762	42,107	35,274	36,053	0.1	-0.5	0.1
State Route 29 - North of Napa Junction Road	59,044	62,507	59,796	60,310	0.2	0.1	0.0
State Route 29 - North of Green Island Road	60,263	59,161	62,745	62,189	-0.1	0.1	0.0
State Route 29 - South of State Route 12	59,200	58,100	63,160	62,560	-0.1	0.2	0.0
State Route 29 - North of State Route 12	88,600	87,000	107,200	106,300	-0.1	0.8	0.0
Airport Boulevard - West of State Route 29	10,500	10,298	10,551	10,341	-0.1	-0.1	-0.1
State Route 12 - East of North Kelly Road	35,033	35,922	35,717	36,038	0.1	0.1	0.0
State Route 37 - West of State Route 29	39,980	39,788	39,156	39,074	0.0	-0.1	0.0
State Route 37 - East of State Route 29	62,495	62,352	63,634	63,592	0.0	0.1	0.0
American Canyon Road - West of State Route 29	15,330	14,396	10,744	10,935	-0.3	-1.5	0.1
American Canyon Road - East of Flosden Road	10,771	9,857	14,419	14,194	-0.4	1.2	-0.1
Flosden Road - South of American Canyon Road	21,510	21,450	29,534	29,362	0.0	1.4	0.0
Newell Drive - North of American Canyon Road	9,685	9,129	28,695	28,072	-0.3	4.6	-0.1
Newell Drive - South of Napa Junction Road	-	-	19,537	21,790	-	-	0.5
South Kelly Road - South of State Route 12	1,602	2,570	11,310	11,310	2.1	8.5	0.0

TITLE

Fiscal Year 2023/24 Capital Improvement Program

RECOMMENDATION

Adopt a Resolution of the Planning Commission of the City of American Canyon, California, determining that the City of American Canyon Fiscal Year 2023/24 Capital Improvement Program is consistent and in conformity with the City of American Canyon General Plan.

CONTACT

Erica Ahmann Smithies, P.E., Public Works Director

BACKGROUND & ANALYSIS

California Government Code Section 65401 requires the Capital Improvement Program (CIP) be consistent with and conform to the General Plan. Furthermore, Section 65402 requires a consistency determination when property must be acquired to implement the CIP. These sections require the General Plan conformance determination be made by the applicable planning agency. For the City of American Canyon, the Planning Commission is the designated planning agency. Accordingly, the Planning Commission is requested to review the Fiscal Year 2023/2024 CIP and determine whether the CIP activities are in conformance and consistent with the General Plan.

General Plan consistency and conformity can best be described as furthering the eventual achievement of the goals, policies, and infrastructure identified in the General Plan. For example, construction of a roadway would be consistent with the General Plan if the roadway is depicted on the Circulation Element, identified in the goals and policies, or listed as an implementation program/activity.

Staff evaluated the proposed FY 2023/2024 Capital Improvement projects for consistency with the classifications contained in the General Plan. As shown in Attachment 2, staff recommends the Planning Commission find these activities are consistent with and in conformity with the policies contained in the General Plan.

Following the Planning Commission decision on the 2023/2024 CIP consistency with the General

Plan, the CIP will be brought to City Council for adoption along with anticipated expenditures and projects over a five-year period at a meeting in June 2023.

ANALYSIS

The 2023/2024 CIP consists of 37 projects in 6 divisions. 18 CIP projects are actively in progress. Approximately 13 new projects are proposed for Fiscal Year 2022/2023. These exciting projects will improve the quality of life for American Canyon residents, business community, and visitors. A few examples of projects in the proposed CIP include:

- Newell Open Space Parking Lot, and Trail Improvements (PR13-00200)
- North Slough Restoration, Reclamation & Recreation access (PR20-0300)
- Playground Replacement (PR21-0100)
- Skatepark Relocation (PR22-0100)
- Melvin Road Park Improvements (PR23-0100)
- Green Island Road Reconstruction/Widening (TR16-0700)
- Benton Way Rehabilitation (TR22-0400)
- Knightsbridge Reconstruction and Water Main Improvements (TR23-0100)
- Melvin Sidewalk and Storm Drainage Improvements (TR24-0200)
- Recycled Water Expansion (RW17-0100)

Some of the projects involve real property to be acquired, as opposed to projects on existing City property, thus triggering the Section 65402 conformity finding. A complete list of proposed CIP projects is included Attachment 2.

The determination of consistency and of conformity where applicable with the General Plan pursuant to Government Code Sections 65401 and 65402 is not considered a "project" under the California Environmental Quality Act (CEQA). Furthermore, actions implementing the adopted 1994 General Plan are consistent with the certified 1994 General Plan Environmental Impact Report (EIR). Specific projects proposed as part of the CIP will require their own CEQA determination at the time of project implementation.

COUNCIL PRIORITY PROGRAMS AND PROJECTS

Organizational Effectiveness: "Deliver exemplary government services."

FISCAL IMPACT

The CIP fiscal impact will be identified in the operating budget for fiscal Year 2023/2024 which will be heard at City Council later this year.

ENVIRONMENTAL REVIEW

The determination of consistency and conformity, where applicable, with the General Plan pursuant to Government Code Sections 65401 and 65402 is not considered a “project” under the California Environmental Quality Act (CEQA).

ATTACHMENTS:

1. PC Resolution FY23-24 CIP Program
2. Exhibit A (FY2023/24 CIP Program)

RESOLUTION NO. 2023-XX

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF AMERICAN CANYON, CALIFORNIA, DETERMINING THAT THE CITY OF AMERICAN CANYON FISCAL YEAR 2023/24 CAPITAL IMPROVEMENT PROGRAM IS CONSISTENT AND IN COMFORMITY WITH THE CITY OF AMERICAN CANYON GENERAL PLAN

WHEREAS, California Government Code Sections 65401 and 65402 requires the Planning Commission to review the proposed Capital Improvement Program (CIP) each year for consistency and conformity with the adopted General Plan; and

WHEREAS, the list of City Capital Project Deliverables for Fiscal Year 2023/24 has been provided to the Planning Commission, attached Exhibit "A"; and

WHEREAS, the City has identified a number of capital improvement projects, including civic, parks, transportation, water, and wastewater improvements for implementation in Fiscal Year 2023/2024; and

WHEREAS, the City of American Canyon Planning Commission considered the list of Capital Project Deliverables for Fiscal Year 2023/24 at the regularly scheduled public meeting of April 27, 2023, at which time all those in attendance were given the opportunity to speak on the proposal; and

WHEREAS, the determination of consistency and conformity, where applicable, with the General Plan pursuant to Government Code Sections 65401 and 65402 is not considered a "project" under the California Environmental Quality Act (CEQA).

NOW THEREFORE BE IT RESOLVED that the Planning Commission does hereby find that the proposed Capital Improvement Program (CIP) for Fiscal Year 2023/24 (Exhibit "A") is consistent with and in conformity with the adopted City of American Canyon General Plan.

PASSED, APPROVED AND ADOPTED at a regular meeting of the Planning Commission on April 27, 2023 by the following vote:

AYES:

NOES:

ABSTAIN:

ABSENT:

_____

Crystal Mallare, Chair

ATTEST:

_____

Nicolle Hall, Administrative Technician

APPROVED AS TO FORM:

_____

William D. Ross, City Attorney

EXHIBIT:

A. EXHIBIT

Project Number		Project Title	General Plan Policy
1	CD19-0100	General Plan Update Project	1.0 Land Use Element: Ensure the General Plan is updated and maintained Goal 1S:
2	CF23-0100	City Hall Re-roof	1.0 Land Use Element: Accommodate public and institutional uses that serve the needs of the residents of American Canyon Goal 1J:
3	CF23-0300	Corp Yard Relocation and Facility Upgrade	1.0 Land Use Element: Accommodate public and institutional uses that serve the needs of the residents of American Canyon Goal 1J:
4	PR13-0200	Newell Open Space (Parking Lot/Trail Construction)	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.15-7.16
5	PR19-0100	Wetlands Edge Environmental Educational Enhancement Project	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.4.12, 7.8.8, I7.10.4, I7.30, I7.43
6	PR20-0300	North Slough Restoration, Reclamation & Recreation Access Project	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.4.12, 7.8.8, I7.10.4, I7.30, I7.43
7	PR21-0100	Playground Replacement Project	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20, I7.27
8	PR22-0100	Skatepark Relocation	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20, I7.27
9	PR23-0100	Melvin Road Park Improvements	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.7.4, 7.8.8, I7.20, I7.27
10	PR23-0200	Melvin Tennis Court Improvements	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20
11	PR23-0400	Northampton Shade Canopy	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20, I7.27
12	PR23-0500	Northampton Park Restroom	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20
13	PR23-0600	Comm Park I Improvements	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20
14	PR23-0700	Silver Oak Restroom	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20
15	PR23-0800	Via Bellagio Playground Surface	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20, I7.27
16	PR23-0900	Adult Activity Center Flooring Replacement	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20
17	PR24-0100	Linwood Park Improvements	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20, I7.27
18	PR24-XXXX	Irrigation Controller Upgrade	7.0 Parks and Recreation Element: Parks and Trail Standards 7.3.1, 7.8.8, I7.20
19	PW22-0100	Stormwater Master Plan	5.0 Utilities Element Policies, Implementation I 5.24 and 5.26

Project Number		Project Description	General Plan Policy
20	TR16-0700	Green Island Rd Reconstruction/Widening	1.0 Land Use Element: 1.3.1 and 4.0 Circulation Element Policies, Street Network 1.1-1.4, 1.6-1.12, & 1.20
21	TR16-0703	Green Island Rd Rule 20A/B Utility Undergrounding	1.0 Land Use Element: 1.3.1 and 4.0 Circulation Element Policies, Street Network 1.1-1.4, 1.6-1.12, & 1.20
22	TR22-0200	Wetlands Edge Court Extension	4.0 Circulation Element Policies, Street Network 1.5, 1.7-1.12, & 1.20
23	TR22-0300	2022 Annual Pavement Project	4.0 Circulation Element Policies, Street Network 1.5, 1.7-1.12, & 1.20
24	TR22-0400	Benton Way Rehabilitation	4.0 Circulation Element Policies, Street Network 1.1, 1.5, 1.7-1.12, & 1.20
25	TR23-0100	ARPA5 Knightsbridge Reconstruction & Water Main Improvements	4.0 Circulation Element Policies: Street Network 1.5, 1.7-1.12, & 1.20 and 5.0 Utilities Element Policies: Water Resources Implementation I.5.4
26	TR23-0200	South Kelly Road - Highway 29 Intersection	4.0 Circulation Element Policies: Street Network 1.5, 1.7-1.12, & 1.20
27	TR23-0300	American Canyon Road Guardrail Project	4.0 Circulation Element Policies: Street Network 1.5, 1.7-1.12, & 1.20
28	TR24-0200	ARPA4 Melvin Sidewalk and Storm Drainage Improvements	4.0 Circulation Element Policies: Street Network 1.5, 1.7-1.12, & 1.20 and 5.0 Utilities Element Policies: Storm Water Implementation I 5.24 and 5.26
29	TR24-0300	ARPA6 Rancho Del Mar Paving and Utility Improvements	4.0 Circulation Element Policies: Street Network 1.5, 1.7-1.12, & 1.20, and 5.0 Utilities Element Policies: Implementation I.5.4 and 5.47 (water and wastewater)
30	WA23-0100	Water Treatment Plan Shop	5.0 Utilities Element Policies, Implementation I.5.4
31	WA23-0200	Water Treatment Plant Filter Media Repl & Underdrain Repair	5.0 Utilities Element Policies, Implementation 5.7.2
32	WW16-0300	SCADA	5.0 Utilities Element Policies, Implementation I.5.4 and 5.47 (water and wastewater)
33	WW20-0100	SS4 Broadway Sewer Rehab, Crawford to Donaldson	5.0 Utilities Element Policies, Maintenance 5.15.4 and Implementation 5.47 (wastewater)
34	WW21-XXXX	UV Disinfection	5.0 Utilities Element Policies, Maintenance 5.15.4 and Implementation 5.47 (wastewater)
35	WW21-XXXX	Blower Replacement	5.0 Utilities Element Policies, Maintenance 5.15.4 and Implementation 5.47 (wastewater)
36	RW17-0100	Recycled Water Expansion	1.0 Land Use Element: 1.3.1 and 5.0 Utilities Element Policies, Implementation I 5.23
37	RW23-0100	Recycled Water Fill Stations	1.0 Land Use Element: 1.3.1 and 5.0 Utilities Element Policies, Implementation I 5.23

City of American Canyon
Active Community Development Projects
April 2023

Project Applications Under Review						
No.	**Project Name**	**Applicant**	**Description**	**Location/Area**	**Application Status**	**Planner**
1.	PG&E Regional Center Monopole (PL23-0011)	Pacific Gas and Electric	Design Permit for a 60-foot tall monopole.	500 Boone	4/12/23 Application submitted 4/21/23 Comments to applicant	William He
2.	Lemos Pointe Apartments Emergency Generator (PL23-0010)	Pacific West Communities, Inc.	Minor Modification for a 200 KW emergency generator.	Northwest corner Rio Del Mar/Loop Road 6.77 acres	4/7/23 Application submitted 4/28/23 Comments to applicant due	William He
3.	NVR&G Amphitheaters (PL23-0009)	Terry McGrath Properties American Canyon, LLC	Conditional Use Permit for the Quarry Lake and Fig Tree Amphitheaters	Napa Valley Ruins & Gardens	3/31/23 Application submitted 5/5/23 Comments to applicant due	
4.	NVR&G Tentative Subdivision Map (PL23-0007)	McGrath Properties American Canyon	Tentative subdivision map to subdivide the proposed hotel and 30 condominiums.	Southeast corner Rolling Hills/Rio Del Mar East 18 acres	3/23/23 Application submitted 4/18/23 Comments to applicant	William He
5.	5555 Broadway Design Permit (PL23-0006)	Intersection	Exterior tenant and site monument sign.	5555 Broadway 7.04 acres	3/8/23 Application submitted 4/6/23 Comments to applicant	William He
6.	5555 Broadway Sign Program (PL23-0005)	Intersection	Cosmetic improvements and outdoor storage uses at the rear of the property.	5555 Broadway 7.04 acres	3/8/23 Application submitted 4/6/23 Comments to applicant	William He
7.	Crawford Way Multifamily Residential (PL23-0003)	Yeh Area Group	A 100-unit Townhome style apartment homes with sixteen 3-story buildings including a mix of 68 two-bedroom and 32 three-bedroom units.	Northwest corner Crawford Way/SR-29 4.276 acres	1/25/23 Application submitted 2/27/23 Comments to applicant	William He

Project Applications Under Review						
No.	**Project Name**	**Applicant**	**Description**	**Location/Area**	**Application Status**	**Planner**
8.	Napa Junction Solar Farm and RV Parking (PL23-0002)	RH Hess Development	A Design Permit for a minor utility solar farm with RV parking.	5381 Broadway 2.4 acres	1/20/23 Application submitted 2/17/23 Comments to applicant 3/14/23 Draft Initial study submitted 4/3/23 Application resubmitted	William He
9.	Bell Products Design Permit (PL22-0037)	Bell Products	Construction of a new 2-story, 30,297 square foot industrial building for Bell Products.	130 Dodd Court 2.28 acres	12/27/22 Application submitted 1/27/23 Comments to applicant 3/27/23 Application resubmitted 5/25/23 Tentatively scheduled for PC review	William He
10.	Paintball Jungle Preapplication (PL22-0036)	Paintball Jungle	Pre-staff review in advance of submitting a Conditional Use Permit for the Paintball Jungle.	2 Eucalyptus Drive 14 acres	12/28/22 Application submitted 2/15/23 Staff Site Visit 3/2/23 Comments to applicant	William He
11.	Promontory at Watson Ranch Subdivision, Design Permit, and Specific Plan Amendment (PL22-0033-PL22-0035)	330 Land Company LLC	Entitlements for construction of 216 single family homes, 54 deed-restricted accessory dwelling units, and a 6-acre park.	Northwest corner Newell Drive/Rio Del Mar East 27 acres residential 6 acres park	12/16/22 Application submitted 1/27/23 Comments to applicant 3/15/23 Application resubmitted 4/14/23 Comments to applicant	William He
12.	Ibarra Terminal Conditional Use Permit (PL22-0032)	Ibarra Trucking	Convert an existing residential site into a trucking office with equipment and vehicle storage.	1190 Green Island Road 1.56 acres	12/6/22 Application submitted 12/16/22 Comments to applicant	William He
13.	Napa Junction Mini-Storage Design Permit (PL22-0031)	RH Hess Development	Redevelop and industrial site into a mini-warehouse project.	4484 Hess Drive 8.41 acres	11/10/22 Application submitted 11/16/22 Applicant placed project on Hold	William He

Project Applications Under Review						
No.	**Project Name**	**Applicant**	**Description**	**Location/Area**	**Application Status**	**Planner**
14.	Watson Ranch Lot 8 Subdivision (PL22-0024)	American Canyon I, LLC	Development of 25 single-family residential lots in a 2.17-acre site in Watson Ranch	North of Watson Ranch Lot 10 (Harvest) Subdivision 2.17 acres	9/16/22 Application submitted 9/23/22 Comments to applicant	William He
15.	Watson Ranch Specific Plan Amendment (PL22-0023)	American Canyon I, LLC	Refinement to the Watson Ranch Specific Plan	North of Vintage Ranch 309 acres	8/26/22 Application submitted 11/16/22 Comments to applicant 12/2/22 Applicant response 12/6/22 Comments to applicant 4/17/23 Application resubmitted	Brent Cooper
16.	Chicken Guy Restaurant (PL22-0021)	Chandi Hospitality	A Conditional Use Permit for a 2,818 sqft quick serve drive-thru restaurant	200 American Canyon Road 1.03 acres	8/22/22 Application submitted 9/21/22 Comments to applicant 10/19/22 Project Review Meeting discussion with applicant 2/23/23 PC Hearing Continued 3/23/23 PC Hearing Continued 4/27/23 PC Hearing Continued	William He
17.	Giovannoni Logistics Center Development Agreement (PL22-0018)	Buzz Oates Construction	Proposed Development Agreement to extend the term of proposed entitlements	East and West of Devlin Road, north of Green Island Road 200 acres	8/1/22 Application submitted 9/1/22 Application on hold pending entitlement approvals	Brent Cooper
18.	PG&E Regional Center Traffic Impact Fee Revision (PL22-0025)	Corporate Real Estate Strategy & Services	A proposed reduction in traffic impact fees based on a change to the project operations.	500 Boone Drive 24.51 acres	7/15/22 Application submitted 9/15/22 Comments to applicant 10/18/22 Application resubmittal 2/6/23 Comments to applicant	William He
19.	Residences at Napa Junction (PL22-0011)	American Canyon Ventures LLC	453 multi-family rental dwellings with associated parking and amenities.	1000 Reliant Way 15 acres	5/2/22 Application submitted 6/1/22 Comments to applicant 7/22/22 Application resubmitted 8/19/22 Comments to applicant 1/11/23 Application resubmitted 2/9/23 Comments to applicant	William He

Project Applications Under Review						
No.	**Project Name**	**Applicant**	**Description**	**Location/Area**	**Application Status**	**Planner**
20.	Sunsquare Mixed Use Building (PL21-0020)	John Howland Architect	3-story mixed-use building with 20 apt units over a 9,820 SF office	425 Napa Junction Road 1.0 acre	8/3/21 Application submitted 8/20/21 Comments to applicant 12/1/21 Applicant on 6-month hold 4/27/23 PC Review	William He
21.	Giovannoni Logistics Center (PL20-0042, PL20-0043)	Buzz Oates Construction	Design Permit, Tentative Map and EIR for approximately 2.4 million sqft logistics center and Design Permit for two warehouses. Building A is 627,976 square feet; and Building B is 469,512 square feet	300 Green Island Road (Bldg A) 1200 Devlin Road (Bldg B) 70 acres	11/13/20 Application submitted 11/17/22 PC Approved 12/6/22 City Council continued hearing to 2/21/23 2/21/23 City Council hearing continued 3/21/23 City Council approved	Brent Cooper
22.	Element 7 Cannabis Business Permit (PL19-0008)	Element 7	Construct a 7,000 square foot building for Cannabis manufacturing, distribution, and non-storefront retail (Delivery) business.	1300 Green Island Road	4/10/19 Application submitted 9/29/20 Application on Hold 9/20/21 Applicant confirmed Hold status	Brent Cooper
23.	Reesan Live, Inc. Cannabis Business Permit (PL19-0024)	Reesan Live, Inc.	Construct an 82,328 sqft 2-story warehouse for cannabis cultivation, manufacturing, distribution and nonstorefront retail delivery.	834 Green Island Road	8/16/19 Application submitted. 4/1/20 Project on Hold 9/20/21 Applicant confirmed Hold status	Brent Cooper

Major Building/Grading Permits					
Project Name	**Description**	**Location**	**Area**	**Status**	**Staff Liaison**
1. Hampton Inn Improvement Plans (DV23-0002)	Site improvements for a 3-story, 106 room Hampton Inn Hotel.	3443 Broadway	2.52 acres	1/24/23 Application submitted 3/17/23 Comments to applicant	Edison Bisnar
2. Napa Valley Ruins and Gardens Building Retrofit (BP23-0010)	Level 1 and level 2 retrofit of Buildings 2, 3, 4, 5, 7 at the American Canyon Ruins.	Southwest corner Rio Del Mar East/Rolling Hills Drive	29 acres	1/4/23 Application submitted 1/20/23 Comments to applicant	Joshua Anderson
3. Oat Hill Residential Building Plan Check (BP22-0733)	Plan check for the 15-Unit Apartment Building	Western terminus Napa Junction Road	N/A	1/11/23 Application submitted 2/8/23 Comments to applicant 4/14/23 Permit resubmitted	Joshua Anderson
4. Oat Hill Residential Building Plan Check (BP22-0736)	Plan check for the 18-Unit Apartment Building	Western terminus Napa Junction Road	N/A	1/11/23 Application submitted 2/8/23 Comments to applicant 4/14/23 Permit resubmitted	Joshua Anderson
5. SDG 217 Warehouse Building Permit (BP22-0436)	Building Permit for a 217,294 sqft warehouse	1075 Commerce Ct	10.38 acres	8/18/22 Application submitted 4/10/23 Permit issued	Joshua Anderson
6. Napa Cove Improvement Plans and Grading (DV22-0001)	Grading and Improvement plans for the Napa Cove Apartment project.	3787 Broadway	3.48 acres	1/18/22 Application submitted 2/4/22 First Plan check 3/21/22 Grading permit approved	Edison Bisnar
7. Napa Cove Building Permits (BP22-0017, 0018, 0019)	Building Permits for the Napa Cove Apartment Project	3787 Broadway	3.48 acres	1/19/22 Application submitted 2/1/22 First Plan check 3/21/22 Permits issued	Joshua Anderson
8. PG&E Regional Center Improvement Plans (DV21-0018)	Improvement plans for the PG&E Regional Center	500 Boone Drive	24.5 acres	10/19/21 Application submitted 12/01/21 First Plan Check 01/13/22 Second Plan Check 02/14/22 Third Plan Check 02/22/22 Improvement Plans Approved	Edison Bisnar

Major Building/Grading Permits					
Project Name	**Description**	**Location**	**Area**	**Status**	**Staff Liaison**
9. Watson Ranch Lot 10 Rough grading and Subdivision Improvement Plans (DV21-0014, 0015)	Rough grading and site improvements for WRSP Lot 10	Northeast corner Marcus Road/Rio Del Mar East	27.17 acres	11/08/21 Application submitted 12/08/21 First Plan Check 01/03/22 Second Submittal 01/13/22 Second Plan Check 01/21/22 Third Submittal 1/24/22 Rough Grading Permit approved	Edison Bisnar
10. Watson Ranch Lot 10 Model Home Building Permits (BP21-0522, 0523)	Model Homes for Watson Ranch Lot 10	Northeast corner Marcus Road/Rio Del Mar East	27.17 acres	12/02/21 Application submitted 12/20/21 First Plan Check 02/10/22 Second Submittal 2/18/22 Second Plan Check 4/5/22 Applicant Submittal 4/7/22 Permit approved 9/2/22 Deferred Submittal 9/7/22 Permit approved	Joshua Anderson
11. Lemos Pointe Building Permit (BP21-0291 – BP21-0298	186 modular affordable apartment units	Northwest corner Marcus Road/Rio Del Mar East	6.7 acres	6/28/21 Application submitted 11/23/21 Building Permits issued	Joshua Anderson
12. Lemos Pointe Grading Permit (DV21-0007)	Rough grading for the Lemos Point Apartment Project	Northwest corner Loop Road/Rio Del Mar	6.7 acres	6/9/21 Application submitted 8/9/21 Application approved.	Edison Bisnar
13. Watson Ranch Lot 14/15 (Artisan) Model Home Building Permits (BP21-0513, 0514, 0515)	Model Homes for Watson Ranch Lot 14/15.	Northern terminus of Summerwood	11.97 acres	11/30/21 Application submitted 5/4/22 Permits approved 9/1/22 Permits issued	Joshua Anderson

Major Building/Grading Permits					
Project Name	**Description**	**Location**	**Area**	**Status**	**Staff Liaison**
14. Fume Commercial Cannabis Will Serve (DV20-0014)	Extend reclaimed water line to supply irrigation demand of the project.	180 Klamath Court	1.37 acres	12/16/20 Will serve and wastewater study received 1/28/21 PC approved the CUP 3/26/21 Will Serve comments to the applicant.	Edison Bisnar
15. Canyon Estates (DV18-0023)	Improvement plans, grading plans, potable water pump station plans and Final Map.	Northeast corner Silver Oak/ Newell Drive	35 acres	10/31/18 Applicant submitted 4/17/19 3rd submittal received 5/22/19 Pump station submittal received 6/13/19 Grading and Improvement Plan Comments to applicant 7/14/20 Preconstruction meeting 3/19/21 Preconstruction meeting 3/22/21 Begin Construction 11/10/22 Civil Improvements are 95% complete	Edison Bisnar
16. Copart (DV20-0008)	Grading permit for an auto storage lot and office building Conditional Use Permit PL18-0019.	1587 and 1660 Green Island Road	20 acres	4/23/20 On-site private wastewater treatment system application submitted to the County 5/12/22 Grading Permit approved 11/10/22 Civil Improvements are 75% complete	Edison Bisnar
17. Home2Suites Building Permit (BP19-0499)	Building permit for 102 room hotel.	3701 Main Street	2.0 acres	12/3/19 Application submitted 8/9/22 BP Issued	Interwest

Major Building/Grading Permits					
Project Name	**Description**	**Location**	**Area**	**Status**	**Staff Liaison**
18. Home2Suites Will Serve and Improvement Plan (DV19-0015)	Will serve application and improvement plans for a 102-room hotel.	3701 Main Street	2.0 acres	9/5/19 Will Serve Application submitted 5/25/20 Improvement Plan Application submitted 4/5/22 Council approved fee reimbursement request 8/10/22 2nd Change Plan Approved	Edison Bisnar
19. PG&E Regional Center Improvement Plans (DV21-0018)	Turner Construction	Improvement plans for the PG&E Regional Center	500 Boone 24.5 acres	10/19/21 Application submitted 2/23/22 Improvement Plans approved	Edison Bisnar
20. Single Family Home Improvement Plans (DV21-0019)	Hoi Wong	Improvement plan for a new single-family home.	219 Rio Del Mar 0.66 acres	11/17/21 Application submitted 5/12/22 Second Plan Check comments 9/23/22 Applicant explained project is on Hold for the winter	Edison Bisnar

Major City-Initiated Projects					
Project Name	**Description**	**Location**	**Area**	**Status**	**Staff**
1. Comprehensive General Plan Update	Review and update to bring the General Plan into conformance with current State standards and community values	Citywide	N/A	7/1/19 Drafting a Request for Proposal (RFP) 1/13/22 Modified "fast-track" technical update scope approved 6/7/22 City Council NOP approved 9/1/22 Administrative draft elements reviewed by staff 3/15/23 Administrative draft EIR received.	Brent Cooper
2. 6th Cycle Housing Element Update	Consistent with State Law, update the City's Housing Policies for an 8-year period 2023 - 2031	Citywide	N/A	9/1/20 Reviewing administrative draft documents 10/18/22 Joint CC/PC workshop 1/26/23 PC Workshop 1/31/23 PC/CC Approved 2/10/23 HCD Review letter received	Brent Cooper
3. General Plan Amendment	Delete Goal 1B Growth Control measures consistent with current State Law	Citywide	N/A	3/23/23 PC Approved 4/4/23 CC Approved	Brent Cooper
4. Emergency Shelter and Accessory Dwelling Unit ADU Ordinance	Amend Municipal Code Chapter 19.38 "Emergency Shelters"; and Chapter 19.39 "Accessory Dwelling Units" consistent with current State Law	Citywide	N/A	3/23/23 PC Approved 4/4/23 CC Approved 1st Reading 4/18/23 CC Approved 2nd Reading	Brent Cooper
5. Smoke-Free Multi-unit Housing Ordinance	Amending Municipal Code Chapter 9.04 "Neighborhood Preservation" to prohibit smoking in any dwelling and common area of a multi-unit residence in the City of American Canyon	Citywide	N/A	12/7/21 CC Presentation by Napa Youth Council 11/15/23 City Manager update 5/2/23 CC 1st Reading 5/16/23 CC 2nd Reading Tentative	Brent Cooper

Major City-Initiated Projects					
Project Name	**Description**	**Location**	**Area**	**Status**	**Staff**
6. Paoli/Watson Lane Annexation (PL19-0003)	General Plan Amendment, rezoning, and annexation of the Paoli/Watson Lane Property.	Southeast of Paoli Loop/SR-29	80 acres	9/5/17 City Council authorization to proceed 5/28/20 City received a Property Owner notice of intent to circulate a petition to annex the Paoli Loop/Watson Lane Property. 5/16/22 Annexation efforts returned to City initiated. Consultant preparing CEQA scope documents. 9/7/22 NOP Comment period begins 9/21/22 NOP Workshop 3/14/23 45-Day EIR Review period begins. Ends on 4/28/23. 4/27/23 PC EIR Workshop	City Manager
7. Annual General Plan Review	Required State review of the General Plan	Citywide	N/A	4/18/23 CC Review completed 4/27/23 OC Review completed	Brent Cooper

Major Regional Projects					
Project Name	**Description**	**Location**	**Area**	**Status**	**Staff Liaison**
1. Napa Valley Transportation Authority 2045 Countywide Transportation Plan	Update the 2015 NVTA Countywide Plan with new mobility priorities for the next 25 years.	Napa County	N/A	8/19 Project Kick-off 9/19 – 01/20 Public Input 01/21 Drafting the Plan	Alberto Esqueda (NVTA)
2. Regional Working Group on Climate Change	Countywide Working Group to evaluate efforts to adopt policies that will combat climate change.	Countywide	N/A	Most recent meeting: 3/24/23 Next meeting 4/28/23 to discuss the Napa County Greenhouse Gas Short-Lived Climate Pollutant Inventory.	Brent Cooper
3. Napa Valley Transportation Authority Highway 29 PID Study	Project Initiation Document (PID) for Highway 29 through American Canyon	American Canyon	N/A	10/4/21 NVTA and American Canyon workshop 2/16/22 NVTA Board of Directors voted to remove the six-lane option from future study. 1/12/23 NVTA conducting environmental review over the next 1-2 years	Danielle Schmitz (NVTA)
4. Napa County Airport Land Use Compatibility Plan Update	Napa County Airport Land Use Compatibility Plan Update and associated CEQA documentation	Napa County Airport Compatibility Zones	N/A	January 2021 Board of Supervisors initiated Airport Land Use Compatibility Plan update 12/13/22 County selects aviation consultant Mead and Hunt 2/1/23 First working group meeting 4/12/23 Second meeting	Brent Cooper